

# Studying Mass Shooters' Words: Warning Behavior Prior to Attacks

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Mass murder is rare, but the impact these events have is devastating. Identifying warning behaviors of mass shooters could prevent these events. The present study analyzed 27 manifestos from 23 mass shooters in the United States. The manifestos were qualitatively coded for the eight preattack warning behaviors of shooters proposed by Meloy et al. (2012). Six of the eight warning behaviors were identified in the 27 manifestos. These warning behaviors have only been examined retrospectively. Future research should examine the ability of these warning behaviors to identify a potential mass shooter before they attack.

### **Public Significance Statement**

The use of preattack warning behaviors can assist community stakeholders and the general public to identify potential mass shooting perpetrators before they attack. The main finding is that perpetrators will leak information, primarily online, about the plans or even date of their attack. Additionally, perpetrators find a way to access firearms in mainly legal ways to be able to kill the most people possible.

**Keywords:** mass murder, mass shootings, multiple homicide, prevention, qualitative method

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In the United States, several mass shootings have made national and international headlines such as the Uvalde school shooting, the Las Vegas shooting, the El Paso Walmart shooting, the Parkland shooting, and the shooting at Pulse nightclub. Of the top 10 deadliest mass shootings in the United States, seven have occurred in the last decade (Mother Jones, 2022). Since 2012, hundreds of lives have been lost and countless injured. These violent attacks may have been prevented by early identification of possible shooters, which could have saved numerous lives (Auxemery, 2015; Bowers et al., 2010; Hamlett, 2017). Studying the words of the shooters who

perpetrated these attacks, and the words of the perpetrators of similar offenses prior to these shootings, is key to early identification of warning behaviors displayed by the shooters before they attacked.

Warning behaviors that are recognizable by the general public could potentially aid in preventing mass shootings and the loss of numerous lives (Auxemery, 2015; Bowers et al., 2010; Hamlett, 2017). Identifying such behaviors would assist teachers, law enforcement, parents, and other community members in identifying potential shooters and intervening before an attack occurs (Bondü & Scheithauer, 2011). Direct interviews with mass shooting offenders would be an ideal manner for identification of these warning behaviors; however, this is usually not feasible (Bondü & Scheithauer, 2011; Declercq & Audenaert, 2011; Hempel et al., 1999; Mullen, 2004). The main barrier to interviewing mass shooters is that they usually die by suicide or suicide by cop during the attack (Declercq & Audenaert, 2011;

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Mullen, 2004). If an offender does survive the attack and is apprehended by the police, it is typically difficult to access the shooter and their records (Declercq & Audenaert, 2011; Fox & Levin, 2003).

In some instances, mass shooters have left behind a manifesto. Utilizing these writings from the shooter in their own words would be beneficial for research purposes because their preattack thoughts, feelings, motivations, and actions could be studied (Murray, 2015). When a person expresses themselves through writing, they expose a great deal of information through their language habits, just like someone does with their nonverbal body language (Osgood & Walker, 1959).

Mass murderers' manifestos have been utilized in extant research. Manifestos were most commonly used in research pertaining to the motives behind the shootings or potential mental illness symptoms in the offender (Aitken et al., 2008). Dutton et al. (2013) analyzed the writings of four mass shooters: one of the Columbine High School perpetrators, the Virginia Tech perpetrator, the Oslo, Norway perpetrator, and the Dawson College perpetrator in Montreal, Quebec, Canada. This study suggested that the four mass shooters had narcissistic, paranoid personality disorders. The authors attributed the shooters' paranoid thoughts and grandiose sense of self-worth as the reasons that led to their attacks. The findings of these studies highlighted the clinical psychological profiles of mass shooters. These characteristics alone appear insufficient to aid prevention through preattack identification of these individuals.

To prevent mass shootings in the future, it is crucial to shift focus from psychological profiles to observable, external behaviors of an individual to identify the shooters before they attack. In a previous study by the United States. Secret service specifically on school shooters, the authors from that profiling individuals based on demographic or psychological characteristics would not be practical due to the variation in the psychological, social, and demographic makeup of known perpetrators (Vossekuil et al., 2002). This could be detrimental for two reasons: (a) the "profile" of mass violence perpetrators could miss potential perpetrators, and (b) could target and label some individuals who fit the "profile" but did not have plans or intentions of ever committing an attack. Warning behaviors have the potential to help identify changes in behavior

that signal an impending attack and require intervention.

While conducting research on school shooters, the U.S. Secret Service was also examining the preattack behaviors of these perpetrators (Abel et al., 2022; Vossekuil et al., 2004). This and other research focused on those identifiable and observable behaviors that perpetrators of mass violence commonly share to create a set of warning behaviors (Abel et al., 2022; Fein et al., 1995; Hendrix et al., 2022; Langman, 2009; Meloy, 2016; Meloy et al., 2001, 2012, 2014; Vossekuil et al., 2004). This continued research on preattack warning behaviors has supported that there is not a comprehensive "profile" of mass violence offenders, but there are observable behaviors that when identified by others could lead to intervention and prevention (Abel et al., 2022; Meloy et al., 2021).

Warning behaviors are broadly defined as "any behavior that precedes an act of targeted violence, is related to it, and may, in certain cases, predict it" (Meloy & O'Toole, 2011, p. 514). These behaviors have been referred to by several names within the literature and public nomenclature, such as "red flags" (Silva & Greene-Colozzi, 2022; White & Meloy, 2016), "high-risk indicators" (Calhoun & Weston, 2003), and/or "attack signaling" (Meloy & Hoffmann, 2013; Vossekuil et al., 2000), but warning behaviors are a "rationally derived typology" of behavioral patterns that demonstrate change and an increased level of risk (Meloy et al., 2014, p. 39).

Most mass shooters usually exhibit more than one warning behavior prior to their attack (Abel et al., 2022; Alathari et al., 2019; Meloy, Habermeyer, & Guldemann, 2015; Silver et al., 2018). In a study by Silver et al. (2018), it was found that active shooters on average demonstrated 3.6 concerning behaviors in the year leading up to their attack, and that these behaviors were usually not reported to police. The behaviors of concern were defined as directly communicated threats, leakage of information about their attack, planning for the attack, an increased interest in violence or firearms, and/or the preparation of a manifesto (Abel et al., 2022; Alathari et al., 2019; Silver et al., 2018).

Research on the preattack behaviors of mass shooters has dispelled the idea that these attacks are the result of the perpetrator "snapping" (Fox & DeLateur, 2013; Freitas & Annas, 2022). Mass shootings are planned in advance with mass shooters typically spending several weeks, months, or

even years planning their attacks (Aitken et al., 2008; Allwinn et al., 2019; Bondü & Scheithauer, 2015; Gill et al., 2017; Larkin, 2009; Meloy & O'Toole, 2011; Vossekuil et al., 2002). These perpetrators are often fascinated with firearms and previous mass shooters (Meloy et al., 2004; Meloy, Mohandie, et al., 2015; Silva & Greene-Colozzi, 2022), legally have access to said weapons (Krouse & Richardson, 2015; Lemieux, 2014; Newman & Fox, 2009), and spend time practicing with the firearms they intend to utilize in the mass shooting to ensure they are well-versed with the weapon (Abel et al., 2022; Hendrix et al., 2022).

The most commonly studied and recognizable warning behavior is leakage. This is the sharing of information relevant to the perpetrator's plan for violence (Allwinn et al., 2019; Gill et al., 2017; Lankford et al., 2019). The majority of perpetrators who were actively planning their violent attack broadcasted their intentions to other individuals such a friend or the potential targets (Abel et al., 2022; Hendrix et al., 2022; Lankford et al., 2019; Meloy & O'Toole, 2011). Research has found that, in a sample of school shooters, the perpetrators often disclosed information to at least one other person about their plans and/or aspirations to commit a mass shooting (Bondü & Scheithauer, 2014; Hendrix et al., 2022; Meloy & O'Toole, 2011). This leakage came in the form of revealing the planned date of their attack, threatening the individuals the perpetrators wished to target with their attack and other details of how the perpetrator planned to execute their attack (Hendrix et al., 2022; Meloy & O'Toole, 2011; Twemlow et al., 2002). Leakage is considered by researchers and law enforcement alike to be the most actionable warning behavior due the intentional or unintentional revelation of attack information by the perpetrator (Bondü & Scheithauer, 2014; Freitas & Annas, 2022).

With their research on leakage, Meloy and O'Toole (2011) included it as one of their eight preattack warning behaviors of mass shooters. In their proposal of a threat assessment typology, Meloy et al. (2012) identified eight preattack warning behaviors, which are defined as follows:

1. **Pathway:** Behaviors that could be categorized as “research, planning, preparation, or implementation” of a mass shooting (Meloy et al., 2014, p. 204). The research aspect of this warning behavior can take many forms. Most commonly, it refers to the shooter looking into different possible locations for their attack or weapons to use (Declercq & Audenaert, 2011). Last, the stockpiling of weapons gives indication that a person may be preparing for a mass shooting (Declercq & Audenaert, 2011; Meloy, Habermeyer, & Guldemann, 2015).
2. **Fixation:** Behaviors revealing that a person has “an increasingly pathological preoccupation with a person or cause” (Meloy, Mohandie, et al., 2015, p. 215). The shooter may obsess over a political, radical, or other controversial ideology, cause, or an injustice they have experienced. It has been noted in previous research that the fixation warning behavior typically leads to professional and social deterioration or isolation due to their preoccupation (Allwinn et al., 2019; Meloy et al., 2012), which may attribute to the “loner” stereotype of this kind of offender (Mullen, 2004; Palermo, 1997).
3. **Identification:** This warning behavior is associated with a “pseudocommando” mentality (Dietz, 1986; Meloy et al., 2014), where the individual believes that he has been mistreated or oppressed, and the only way to enact revenge is to commit his attack (Knoll, 2010). The shooter may collect paraphernalia associated with law enforcement or the military (Dietz, 1986). This “pseudocommando” mentality may also lead the shooter to have a higher level of competency with guns and other weapons because of their fascination with the military and law enforcement (Bowers et al., 2010; Levin & Madfis, 2009). In turn, this may assist when implementing their attack (Levin & Madfis, 2009). This type of offender typically identified with previous mass shooters (Bondü & Scheithauer, 2011; Meloy et al., 2014), often idolizing them for the stance they took and their subsequent violent actions. Mass shooters also exhibited a grandiose sense of self-worth, where they perceive themselves as above others and that they had the power correct humanity (Cohen-Almagor, 2014; Hempel et al., 1999).
4. **Novel Aggression:** This is an aggressive action the offender committed in order to test their ability to go through with the planned attack (de Becker, 1997; Meloy, Habermeyer, & Guldemann, 2015). Usually, this act is unrelated to the planned attack

- because it is unrelated to their motivations or the target (MacCulluch et al., 1983; Meloy et al., 2012).
5. Energy Burst: This is the most difficult warning behavior to identify (Meloy, Habermeyer, & Guldemann, 2015). It is defined as an escalation in activity related to the planned attack. It is often noticed weeks or days leading up to the shooting (Meloy et al., 2012, 2014; Odgers et al., 2009). The offender's daily activity level would need to be known in order to determine if their activity level had increased or not.
  6. Leakage: Leakage is indirect communication to an external party about their plans for an attack (Meloy & O'Toole, 2011). Such communication could be vague in nature or more apparent, in which case, details of the attack may be disclosed. Those receiving the communication may not be aware of the impending attack to be able to identify the references in the often-vague details provided by the perpetrator (Meloy et al., 2021; Meloy, Habermeyer, & Guldemann, 2015).
  7. Last Resort: This warning behavior signified that the shooter does not have any other option but to go through with their attack (Meloy et al., 2014). Most often, the shooter feels trapped, like there is no way to back out of their attack plan (Meloy et al., 2014). While there might be other alternatives to their act of violence, the shooter does not recognize them, or has decided that a violent act is the only solution because more docile options may have failed in the past (de Becker, 1997; Meloy, Habermeyer, & Guldemann, 2015).
  8. Directly Communicated Threat: The direct threat, either written or verbal, to law enforcement or the target (persons or location) of the attack (Meloy & O'Toole, 2011). This warning behavior is also uncommon in mass shooters because it would thwart their goal (Meloy, Habermeyer, & Guldemann, 2015).

Meloy, Habermeyer, and Guldemann (2015) studied these eight warning behaviors in the case study of the perpetrator of the 2011 mass shooting in Oslo, Norway. Six out of the eight warning behaviors were identified in the primary and secondary data sources analyzed (e.g., court

transcripts and investigation data). While this case study did provide face validity for most of the warning behaviors in a European shooter, these warning behaviors have not been qualitatively identified across American mass shooters' utilizing data directly from the source (i.e., the perpetrators' manifestos). The purpose of this exploratory study is to identify the warning behaviors proposed by Meloy et al. (2012; Meloy, Habermeyer, & Guldemann, 2015) in a larger sample of American mass shooters' manifestos. Based on previous literature (Meloy, Habermeyer, & Guldemann, 2015), it is hypothesized that all of the warning behaviors will be identified due to the larger sample size.

## Method

### Mass Shootings Definition(s)

Although definitions in the literature of what constitutes a mass shooting vary (Bowers et al., 2010; Gill et al., 2017), a general definition of a mass shooting is "the killing of several victims in a single event" with the use of a firearm (Aitken et al., 2008, p. 262). Multiple locations are permitted in the event of a mass shooting as long as the locations are in an uninterrupted sequence within a 24-hr period (Aitken et al., 2008; Dietz, 1986). Early literature focused the definition of mass murder on the offender's motive or the type of weapon used, but in recent literature, those definitions have been found to be impractical (Gill et al., 2017). The most common definition of mass murder is based on the number of victims, although there remains a lack of consensus of what is the threshold.

While it is easy to classify well-publicized shootings—such as those in Uvalde, Texas, Parkland, Florida, the Route 91 Harvest music festival in Las Vegas, and Pulse Nightclub in Orlando—as mass shootings, it is the minimum number of lives lost (excluding the shooter) that is the source of the dispute (Bowers et al., 2010; Gill et al., 2017). The minimum victim number is necessary to differentiate between multiple homicide and mass murder (Fox & Levin, 2003). The minimum number of victims ranges between two (Levin & Madfis, 2009; Palermo, 1997), three (Aitken et al., 2008; Dietz, 1986; Hempel et al., 1999), and four (Duwe, 2017; Fox & Levin, 1998; Knoll, 2012), with some researchers arguing a larger

number better satisfies the requirement for the definition (Bondü & Scheithauer, 2011; Fox & Levin, 2003). The variety in the minimum death count to constitute a mass murder led to the development of the concept of mass murder by intention. Kelleher (1997) defined the term as an incident where the offender had the intention to commit mass murder, but was unsuccessful in killing enough people to meet the minimum victim criterion. This definition is more inclusive because it incorporated those shootings where the offender declared their aim of causing mass casualties, but was unable to do so for various reasons (e.g., gun jammed, offender apprehended by civilians or law enforcement). For the purpose of this study, the Kelleher (1997) definition which focuses on the perpetrator's intention is utilized.

## Data

The present study utilized a convenience sample of mass shooter manifestos who committed their attacks in the United States between 1966 and 2018. Manifestos can be defined as a public written or verbal declaration of the "intentions, motives, or views" of a mass shooter (Manifesto, 2018). Data were gathered via an internet search for: (a) writings such as journal or letters, (b) YouTube videos, and/or (c) online blog, social media, or chat forum posts that were attributed to an American citizen who committed or attempted to commit a mass shooting. Data were gathered via online news sources, but primarily from SchoolShooters.Info, a website with information about mass shooters by Dr. Peter Langman. Shooters were included in the study if (a) one or more manifestos could be found online, (b) the attack happened in the United States, (c) the manifesto contained relevant information about the attack, and (d) the shooter had the intention of causing mass chaos and harm to persons unrelated to themselves. The last condition was important for this study. While many shooters go in with the intention of killing as many as possible, their attack does not always go as planned. These attacks would not be considered mass shootings because the victim count does not exceed the minimum threshold for the number of victims killed, but that does not mean their intentions were any different than those shooters who did "successfully" carry out a mass shooting (Aitken et al., 2008). Exclusion criteria for the study consisted of: (a) writings, videos, or online

posts from mass shooters that did not contain information related to the warning behaviors, (b) family annihilators because the intentions of their attacks differ from those of public mass shooters. Family annihilators have often suffered a financial or marital setback and they kill their family in order to prevent their own suffering if the offender were to just commit suicide (Bowers et al., 2010; Dietz, 1986). This last criterion was important because those types of killers commonly have specific persons as the targets of their attack, and they are not seeking to cause mass casualties to promote their ideologies or to enact revenge against a group that has caused them to suffer a perceived injustice. Thirty-three manifestos from 27 mass shooters were collected for analysis. Of the 33 manifestos, six were excluded from the analysis because they met the first exclusion criterion. This left 27 manifestos from 23 shooters available for analysis. As shown in the previous statement, the number of manifestos did not match the number of shooters. The Columbine High School perpetrators, Eaton Township, Pennsylvania perpetrator, and Isla Vista perpetrator produced multiple manifestos in the form of journal entries, videos, and letters. Rather than exclude those perpetrators due to their multiple manifestos, these were included because they give additional insight to the perpetrators' thought process and preattack actions. For more information about the shooters, their attacks, and the manifestos used, see [Supplemental Material](#).

## Participants

Participants comprised 23 male shooters. They were between 12 and 48 years of age at the time of their attack ( $M = 22.13$ ;  $SD = 7.62$ ), and were identified as White (56.52%), mixed ethnicity (13.04%), Latino (8.70%), Native American (8.70%), African American (8.70%), or Asian (4.40%). Shooters under the age of 18 were included in the sample because adolescent mass shooters are more alike to adult mass shooters due to their similar motives and risk factors than to other violent adolescent offenders (Berkowitz & Liu, 2016; Hamlett, 2017).

## Qualitative Coding and Analysis

A qualitative content analysis was conducted on the 27 mass shooter manifestos. The manifestos were analyzed by the author who used NVivo 11

(QSR International Pty Ltd., 2015), a qualitative data analysis program, to code for the behaviors outlined by Meloy et al. (2012). The author read through all of the manifestos to get familiarized with the data set and develop the analytic plan (Howitt, 2016). This step may seem insignificant, but due to the data being directly from the shooter and not collected by the researcher, this step was crucial for the researcher to understand the available data before systematic coding began. Next, the codebook of the eight preattack behaviors was created in QSR NVivo 11 (Meloy et al., 2012; Meloy, Habermeyer, & Guldemann, 2015). Quotations were directly taken from the perpetrators' manifestos and coded as one, or more, of the eight warning behaviors based on their context. After the 27 manifestos were coded, each warning behavior theme was cleaned to ensure the data were correctly coded (i.e., a quotation was not accidentally coded into the wrong warning behavior when it was meant to be coded in another). Once the data were cleaned, all of the manifestos were read over again to ensure comprehensive coding was complete.

## Procedure

Data collection and analysis procedures were reviewed and approved by the institutional review board at the University of Huddersfield prior to the commencement of the study. The institutional review board determined there were no ethical concerns surrounding data collection, analysis, or dissemination of results as the data were publicly available on the internet.

## Results

Six of the eight warning behaviors were identified in the 27 manifestos utilized in the analysis. The results will be presented from the most identified to least identified warning behaviors. All quotations are verbatim; such as, they have not been edited for grammatical or spelling errors. Words in brackets were added for clarity such as acronym meanings.

### Leakage Warning Behavior

Leakage was the most frequently identified warning behavior in the data. This warning behavior was most often identified when the shooters were planning their attacks. The shooters revealed the exact date of their attack in their

manifestos, usually along with an explanation of why they chose the selected date. Other details of the attacks were also identified. Specific targets of the attack were disclosed through leakage. Most of the identified targets were those who had wronged them. The Isla Vista perpetrator, for example, identified the specific group he planned on attacking, as shown in the passage below:

I will attack the very girls who represent everything I hate in the female gender: The hottest sorority of UCSB (University of California, Santa Barbara). After doing a lot of extensive research within the last year, I found out that the sorority with the most beautiful girls is Alpha Phi Sorority.

The Parkland perpetrator was also specific in his leakage of his target in the video he recorded right before his attack, in which he states: "Location is Stoneman Douglas in Parkland, Florida."

Six shooters turned to social media as part of their leakage warning behavior. One of the Columbine High School perpetrators was the first mass shooter to use online posts to subtly leak information about his attack with his coperpetrator. Subsequent shooters followed suit. The Collier Township, Pennsylvania perpetrator used his own blog to discuss his thoughts about death, his isolation from people, and his "exit plan" (May 5, 2009 blog entry). The Eaton Township, Pennsylvania perpetrator utilized Twitter to send out several tweets that leaked the date of his attack. Two examples are shown in the following tweets: "You probably won't sleep for a week after Wednesday. ... just sayin'. ..." and "I'm gonna be dead by the end of next week. ..." (<https://twitter.com/egsandrew?lang=en>). The Isla Vista and Tucson, Arizona perpetrators utilized YouTube to release videos about their ideologies and hints about their forthcoming attacks. The most concealed leak was by the Red Lake perpetrator. He disguised the intentions for his attack as a fictional story on a writers' group blog. Overall, the amount of information shooters leak, whether directly or indirectly, presented an opportunity for intervention to prevent these attacks; however, no such intervention occurred.

### Pathway Warning Behavior

More than half of the manifestos contained the pathway warning behavior. This behavior was characterized by planning, research, stockpiling of weapons, identifying targets (location and

people), and saving money in preparation for the attack. Many of the shooters were preoccupied with selecting the “right” date for their attacks in order to not get caught and be able to cause as much damage as possible. For example, the Isla Vista perpetrator described the research that went into selecting the date for his attack in the passages below:

It came to a point where I had to set a date for the Day of Retribution. I originally considered doing it on the Halloween of 2013. That is when the entire town erupts in raucous partying. There would literally be thousands of people crowded together who I could kill with ease, and the goal was to kill everyone in Isla Vista, to utterly destroy that wretched town. But then, after seeing footage of previous Halloween events on YouTube, I saw that there were too many cops walking around. It would be too risky. One gunshot from a cop will end everything. The Day of Retribution would have to be on a normal party weekend ...

And,

Valentine’s Day would have been very fitting, since it was the holiday that made me feel the most miserable and insulted, the holiday in which young couples celebrated their happy lives together. The problem was that Valentine’s Day was only a month away. I needed more time than that. Also, on Valentine’s Day most young couples will be spread out in various restaurants in the city instead of being packed together at parties in Isla Vista. Another option was Deltopia, a day in which many young people pour in from all over the state to have a spring break party on Del Playa Street. I figured this would be the perfect day to attack Isla Vista, but after watching Youtube videos of previous Deltopia parties, I saw that there were way too many cops walking around on such an event. It would be impossible to kill enough of my enemies before being dispatched by those damnable cops. I wanted to set an exact date, on a normal Isla Vista party weekend, and once I set that date I will never change it.

This passage from the Arapahoe High School perpetrator also displayed the importance of the attack date:

I hope to choose a date with the following criterion. Finals week—everyone is at school, and it will be winter during finals week, I hope I can find a day it is actually snowing, or just incredibly cold.

Therefore, the exact date is important to the shooter, not because it has significance to them; but because it is instrumental in order for them to achieve their goal of killing and injuring as many people as possible.

Location selection was just as important as date selection to the shooters, as shown in the passage below by the Seattle Pacific University perpetrator:

There are a few universities in the state to pick from that I’m planning to attack. Washington State is the main target. I can’t make it there without any suspicion, my parents will keep wondering where I’m at and plus I’m not yet prepared for it, I have plan B’s Central, Eastern and Seattle Pacific. I was focusing on Central but not prepared for that either. Didn’t think about Eastern because I’m only prepared to be local. I picked Seattle Pacific because I’m less familiar with it and I can see that University of Washington and Seattle University represent Seattle more. I didn’t want to have to attack my own city.

The location of the attacks often represented a place the shooter hated, but when faced with attacking a place of comfort or positive familiarity, the shooter would select a different location, like what was shown with the Seattle Pacific University perpetrator.

Planning the exact details, step-by-step, was also commonly found in the manifestos. Each shooter in this subcategory displayed different levels of planning, ranging from a cohesive, imprecise plan (Parkland perpetrator) to details planned in 5-min increments (Aurora, Colorado and Arapahoe High School perpetrators). The Aurora, Colorado perpetrator was one out of two shooters, the other being Eaton Township, Pennsylvania perpetrator, who drew out maps of the inside of his target location (the movie theater), along with a map of the area surrounding the movie theater in preparation for his attack. By planning out their attacks in detail, the shooters sought to create an opportunity to produce mass casualties and injuries. The lengthy planning process utilized by shooters in the pathway warning behavior would allow for intervention.

In the planning process, shooters identified individuals or groups of people they wanted to target. These were usually people who they wanted to exact revenge on, such as students who wronged them—as was the case with the Columbine High School perpetrators who wanted to target those people at school who made them feel ostracized. To target those who he believed caused him to lose his job as a police officer, the Los Angeles County perpetrator<sup>1</sup> utilized his law enforcement training:

I will utilize ISR [Intelligence, Surveillance, and Reconnaissance] at your home, workplace, and all locations in between. I will utilize OSINT [Open-Source Intelligence] to discover your residences, spouses workplaces, and

<sup>1</sup> The acronym definitions were taken from GlobalSecurity.org. <https://www.globalsecurity.org/intell/library/policy/army/fm/2-0/gloss.htm>.

children's schools. IMINT [Imagery Intelligence] to coordinate and plan attacks on your fixed locations. Its amazing whats on Non-secure Internet Protocol Router. HUMINT [Human Intelligence] will be utilized to collect personal schedules of targets.

Revenge was the common theme in all the shooters' manifestos. It was mentioned during the planning process so the shooters could identify specific targets that they wanted to make sure to kill or wound.

As with any attack, gathering weapons was also important to the planning process. Many of the shooters would stockpile weapons in preparation for their attacks. The Columbine High School perpetrators, along with Eaton Township, Pennsylvania and Aurora, Colorado perpetrators, were the shooters who collected the most weapons and accessories for their attacks. Passages below demonstrate how much weaponry and ammunition these men were able to stockpile without drawing attention from the authorities:

Well folks, today was a very important day in the history of Reb [perpetrator] today, along with Vodka [co-perpetrator] and someone else who I won't name, we went downtown and purchased the following: a double barrel 12 ga. [gauge] Shotgun, a pump action 12 ga. [gauge] Shotgun, a 9 mm [millimetre] carbine, 250 9 mm [millimetre] rounds, 15 12 ga [gauge] slugs, 40 shotgun shells, 2 switch blade knives, and a total of 4 10-round clips for the carbine ... Vodka has a Tec 9, we test fired all of our babies, we have 6 time clocks ready, 39 crickets [small bombs], 24 pipe bombs, and the napalm is under construction.

—Columbine High School perpetrator

And,

Buy stun gun and folding knife. Research firearms law and mental illness. Buy handguns. Committed. Shotgun. AR-15. 2nd handgun. Wildcard: explosives. Simplest and least suspicions: gasoline & oil. Acquire remote detonation system and bodyarmor ...

—Aurora, Colorado perpetrator

These shooters were aware that copious amounts of weaponry were crucial to their attack, and that multiple firearms were necessary "in case one jams" (Isla Vista perpetrator). The ease of access to weapons could reduce mass shootings, along with flagging those who order ample amounts of ammunition or multiple firearms in a specific time period.

The Isla Vista perpetrator was the only shooter in this study who mentioned saving money to finance his attack. He recognized the importance of it to his plans, as shown by the passage below:

I began to carefully save up all of the money that my parent's and grandmothers were sending me. It was an ample amount to live on, leaving me with a lot left over to build up in my bank account. When I hit the \$5000 dollar mark, which was fairly soon after my move to Santa Barbara, I decided never to go under it, deeming that \$5000 was enough to buy all of the supplies and equipment I would need if I had to do something like this.

## Identification Warning Behavior

Just over half of the manifestos included the identification warning behavior. Shooters often idolized previous shooters because they committed their attacks "for the good of society" (Charleston church perpetrator). Many of the shooters mentioned in their manifestos that they idolized the "Columbine killers." The Eaton Township, Pennsylvania perpetrator referred to one of the Columbine High School perpetrators as a "god," "hero," and "inspiration" in his journal 25 times. He also imitated one of the Columbine High School perpetrators by naming his shotguns, dressing in a Natural Selection t-shirt, and creating tapes similar to the infamous basement tapes of the Columbine High School perpetrators. The Orange High School perpetrator dedicated a page in his journal to one of the Columbine High School perpetrators, and also named his gun Arlene after the shotgun used in the Columbine High School attack.

Not only did the shooters identify with previous attackers, they also saw themselves as "superior to these humans" (Eaton Township, Pennsylvania perpetrator) and "god of everything" (Columbine High School perpetrator). The shooters viewed their superiority as why they did not receive what they deserved in this lifetime, like this quote from the Umpqua Community College perpetrator: "I long ago realized that society likes to deny people like me these things. People who are elite, people who stand with the gods." This superiority, god-like complex fueled their ideologies and the belief that they had the power to forcibly act out on these beliefs. For example, this passage from the Virginia Tech perpetrator is illustrative:

Thanks to you, I die, like Jesus Christ, to inspire generations of the Weak and Defenseless people—my Brothers, Sisters, and Children—that you fuck ... Like Moses, I spread the sea and lead my people—the Weak, the Defenseless, and the Innocent Children of all ages that you fucked and will always try to fuck—to eternal



freedom. Thanks to you Sinners, you Spillers of Blood, I set the example of the century for my Children to follow.

The Isla Vista perpetrator similarly stated,

I formed an ideology in my head of how the world should work. I was fueled both by my desire to destroy all of the injustices of the world, and to exact revenge on everyone I envy and hate. I decided that my destiny in life is to rise to power so I can impose my ideology on the world and set everything right.

Within this warning behavior of identification developed a subtheme of fame-seeking. Five manifestos commented on ideas of being celebrated for their actions and being known for having “the most deaths in U.S. history” (Columbine High School perpetrator). The shooters wanted to “go into the history books” (Eaton Township, Pennsylvania perpetrator) and have books and/or movies written about them and their attacks. The Eaton Township, Pennsylvania perpetrator also wanted to become recognized for his attack to create a following that would help advance his beliefs and achieve fame:

My goals are extreme, but one of them is a must. I want to form a suicide cult following. If it happens after I'm dead then so be it, but I want people to spread EGS [Ember's Ghost Squad] around the globe and to perform mass suicides, sacrificing their lives for the squad. Something tells me at least one human will take their own life from watching “EGS” [Ember's Ghost Squad] and the parents will cause a national uproar over it, all towards me.

Shooters often idolized previous mass shooters, which gave them celebrity-like status. It was the mass shooters that had the highest number of victims that were idolized, and subsequent shooters attempted to surpass the former highest ranking victim count. Feelings of supremacy and god-like power lead the shooters to believe that their attacks were justified.

### Fixation Warning Behavior

Hatred of others or belief in their ideology preoccupied the shooters in less than half of the manifestos. They became fixated on these topics until they brought themselves to act upon their ideations. Each shooter whose manifesto contained the fixation warning behavior had an ideology or underlying hatred that consumed them and was a motivating factor for their attack. They wanted to correct the “wrongs” they saw in society. The Charleston church perpetrator is a prime example of someone who wanted to “fix”

society by advancing his belief that White persons were superior in America, as show in the passage below:

There were pages upon pages of these brutal black on White murders. I was in disbelief. At this moment I realized that something was very wrong. How could the news be blowing up the Trayvon Martin case while hundreds of these black on White murders got ignored? From this point I researched deeper and found out what was happening in Europe. I saw that the same things were happening in England and France, and in all the other Western European countries. Again I found myself in disbelief. As an American we are taught to accept living in the melting pot, and black and other minorities have just as much right to be here as we do, since we are all immigrants. But Europe is the homeland of White people, and in many ways the situation is even worse there. From here I found out about the Jewish problem and other issues facing our race, and I can say today that I am completely racially aware.

Other shooters were not focused on particular ethnic groups, but those who had wronged them in the past. Their attacks were a form of revenge to correct the injustice that had been brought against them. The Los Angeles County perpetrator, for example, believed that his reports on other officers using improper use of force in the field led to him being fired from the Los Angeles Police Department (LAPD). What he lost from being discharged consumed him:

The LAPD's actions have cost me my law enforcement career that began on 2/7/05 and ended on 1/2/09. They cost me my Naval career which started on 4/02 and ends on 2/13. I had a TS/SCI clearance (Top Secret Sensitive Compartmentalized Information clearance) up until shortly after my termination with LAPD. This is the highest clearance a service member can attain other than a Yankee White TS/SCI which is only granted for those working with and around the President/Vice President of the United States. I lost my position as a Commanding Officer of a Naval Security Forces reserve unit at NAS Fallon because of the LAPD. I've lost a relationship with my mother and sister because of the LAPD. I've lost a relationship with close friends because of the LAPD. In essence, I've lost everything because the LAPD took my name and new I was INNOCENT!!!

This feeling of injustice with no one paying for their actions led the shooters with no other choice, in their minds, but to act on their plans.

### Last Resort Warning Behavior

Half of the manifestos alluded to no other options being available, except the option to go through with their attack. While one shooter had to do this to clear his name, as expressed by the

Los Angeles County perpetrator above, a few of the other shooters felt “forced into a corner” (Virginia Tech perpetrator). The Isla Vista perpetrator wrote that he “didn’t want things to turn out this way, but humanity forced my hand,” meaning that the responsibility of his actions fell on others, not himself.

Two shooters felt that the only way for their cause to receive attention was to use drastic measures, as shown in the following passages:

I am still a believer, and I honestly feel that there is no hope for me. Consequently, I am making a sacrifice so that others in my same position might have a chance at a normal, harassment-free life. I realize that my methods are not the best selection and probably will not be perceived as the selection of a Christ-follower-but I have prayed incessantly for months to no avail. There are targeted individuals that have endured this torture for decades without any relief, and what targeted individuals need more than anything is media attention.

—Florida State perpetrator

And,

I have no choice. I am not in the position to, alone, go into the ghetto and fight. I chose Charleston because it is most historic city in my state, and at one time had the highest ratio of blacks to Whites in the country. We have no skinheads, no real KKK [Ku Klux Klan], no one doing anything but talking on the internet. Well someone has to have the bravery to take it to the real world, and I guess that has to be me.

—Charleston church perpetrator

While options other than their attacks may have been available, the shooters did not believe that those methods would work. In their mind, mass casualties and injuries would be the only option to satisfy their injustices.

### Novel Aggression Warning Behavior

The novel aggression warning behavior was detected in less than one-fifth of the manifestos. Three of writers of the four manifestos with this identified behavior utilized gun ranges to practice shooting at targets prior to their attacks. Only one shooter (Pearl High School perpetrator), actually killed as a trial run for his shooting. His manifesto contained details on how he tortured and killed his dog about 5 months before his attack. The majority of the manifestos did not contain this warning behavior.

### Directly Communicated Threat Warning Behavior

This warning behavior was not found in any of the manifestos. None of the shooters directly told

anyone or any target their plans for their attacks. Three shooters described how they were overly cautious in order to not cause suspicion from those around them. One of the Columbine High School perpetrators noted how he was almost caught when the gun store called his house to inform him that the clips he ordered were available for pick up. He was able to convince his father, who answered the phone, that it was a misdial by the shop owner. The Aurora, Colorado perpetrator wrote in his journal that he “can’t tell the mind rapist [his therapist] the plan.” With shooters taking this precaution, it may explain why the directly communicated threat warning behavior was not found in this sample.

### Energy Burst Warning Behavior

This warning behavior was also not found in this sample. It is difficult to gauge the shooters’ daily habits from their writings in order to be able to discern if their activity levels changed.

### Discussion

The present study qualitatively examined the warning behaviors proposed by [Meloy, Habermeyer, and Guldimmann \(2015\)](#). Six of the eight warning behaviors were identified in the 27 manifestos of American shooters utilized in the analysis. This study gave additional face and ecological validity to six of the eight warning behaviors using qualitative content analysis in a sample of American mass shooters, yet, these warning behaviors need further empirical research, particularly in practice. Leakage was the most identifiable of the warning behaviors, which is supported by previous research ([Bondü & Scheithauer, 2014](#); [Hempel et al., 1999](#); [Meloy, Habermeyer, & Guldimmann, 2015](#)). Shooters were often found to have given advanced notice of their attack ([Fein et al., 1995](#)), while releasing information, such as a date or location. This leaked information was most often found in online social media posts or YouTube videos.

Research has shown that mass shooters take time to prepare their attack ([Aitken et al., 2008](#); [Bondü & Schneithauer, 2015](#); [Vossekuil et al., 2002](#)), which was second most identified warning behavior in this study. Planning and research were the main themes of the pathway warning behavior. Shooters took time to select the ideal location for their attacks to ensure that they would

achieve a high number of fatalities. Shooters also prepared for their attacks by building a cache of weapons, mainly guns, because it would be easier to kill many people with a gun than it would with a knife or other sharp object (Bowers et al., 2010).

Mass shooters closely identified with previous mass murderers. They imitated previous shooters, particularly one of the Columbine High School perpetrators, and idolized them for their beliefs and acts of violence. Shooters sought to top the body count of previous shooters so they could live in infamy. Identification with previous shooters could lead to copycat shooters, as shown in this study by those shooters who imitated the Columbine High School perpetrators. The copycat phenomenon is believed to be influenced by the amount of attention the media gave, and continues to give, to mass shootings (Palermo & Ross, 1999). They tend to focus on the personal history, motivation, and psychological factors of the shooter, while giving minimal focus on the victims of the tragedy. The media coverage received by the shooter often glamorizes them, which gives them a celebrity-like status, even if only temporarily (Aitken et al., 2008; Lankford & Madfis, 2018). In turn, the attention received by the shooter has the potential to validate their actions for potential shooters who are watching and identify with the same angry and vindictive beliefs as the shooter (Lankford & Madfis, 2018; Muschert, 2012).

The mass shooters tended to fixate on their misfortunes and the injustices that were committed against them. The theme of revenge ran through the entire fixation warning behavior shown by the shooters. Revenge is a common motive of mass shooters (Bowers et al., 2010; Knoll, 2012) and fueled their belief that they are entitled to their attacks due to the unfair treatment they perceived to have endured in their lifetime (Fox & DeLateur, 2013; Hempel et al., 1999). Shooters often did not take responsibility for the injustices that they suffered; blame was always cast on other individuals (Duwe, 2004). This related back to the narcissistic tendencies shown in the identification warning behaviors. Narcissism has commonly been identified as a personality trait held by mass shooters (Egnoto & Griffin, 2016). Their grandiose sense of self, as shown in the identification warning behavior, and the entitlement they perceived from fixating on their adversities, permitted the shooters to commit their violent attacks (Egnoto & Griffin, 2016; Hempel et al., 1999).

The last resort warning behavior reflected the shooters' beliefs that they had exhausted all other options, so they must execute their plan of attack. The planned attack, in their minds, was the only way to obtain revenge and take a stand against those who were targeted. In previous research by Meloy et al. (2014), the last resort warning behavior indicated that an attack was forthcoming. If this warning behavior is identified in a potential offender, there is a very likely chance that the offender already has the plan and weapons to commit their attack.

Novel aggression was identified in five of the 27 manifestos. This warning behavior consisted mainly of shooters practicing at a gun range. Only one shooter "tested" himself before his attack by killing the family dog. Previous research suggested that the shooters have a familiarity with their attack location (e.g., the shooter attended to school there), so that may explain why very few shooters have a "test run" beforehand (Gill et al., 2017). Additionally, the risk of getting caught by carrying out a preattack test could also explain why the novel aggression warning behavior was not identified more. The shooter did not want to risk getting caught before they could carry out their attack plans.

Directly communicated threat and energy burst were the warning behaviors that were not identified in any of the manifestos, which was not expected due to the larger sample size (compared to the single-case study used to identify these behaviors). The energy burst warning behavior has been found to be difficult to identify in manifestos because the shooter's level of activity cannot exactly be known without directly observing the individual (Meloy, Habermeyer, & Guldemann, 2015). This warning behavior may be easier to be identified by those surrounding the shooter. These people are more likely to be aware of the daily activity level of the shooter, so if levels do change, this could signal the need for someone to inquire about these changes and intervene if necessary. The directly communicated threat warning behavior was also not identified in the data set, and has been shown to be the least frequently identified warning behavior of mass shooters (Meloy & O'Toole, 2011). This could have been due to some of the shooters hiding their plans from those around them. Withdrawal and secretive behavior could be an indication to others that something is potentially going on if other warning behaviors are present.

## Implications

The major implication of these warning behaviors is that they could be used to identify mass shooters before they commit their attacks (Meloy, Habermeyer, & Guldemann, 2015), as suicide signs have been used to help the general public identify people who might be planning to die by suicide (Rudd et al., 2006; Stone et al., 2018; Tucker et al., 2015; Van Orden et al., 2006). Mass shooting attacks may not be preventable until the general public is aware of the warning behaviors that signify an impending attack (Fein et al., 1995), and feel comfortable with reporting a potential threat that might be coming from someone they know and/or love, such as a family member or friend (Lankford et al., 2019; Silver et al., 2018; Silva & Greene-Colozzi, 2022). Proactively promoting these warning behaviors would give a list of observable behaviors to the general public, who would, ideally, be able to recognize these behaviors, intervene, and report them to the authorities. With these warning behaviors as public knowledge, this allows for more eyes to be in the community, other than law enforcement, to assist in identifying persons of concern, which in turn will increase the ability to detect early warning signs of a planned attack (Bondü & Scheithauer, 2011; Fein et al., 1995; Simons & Meloy, 2017).

Not only is it important for the public to be able to identify these warning behaviors, it is imperative for those individuals to then feel safe to anonymously report such information when it is recognized (Abel et al., 2022). Currently, there are anonymous tip lines being used in schools and communities across the country that provide people a place to anonymously report potential mass shooting threats. Reporting systems such as Sandy Hook Promise Say Something Anonymous Reporting system have been implemented in some K-12 schools and colleges and universities around the country. Over half of the public middle schools and high schools across the United States have implemented some type of reporting system, and about 10 states in the country operate their own state-level reporting system (Hendrix et al., 2022; Planty et al., 2020). These reporting systems, which are anonymous, have been a vital resource for people who want to report suspicious activity, but feel guilty and/or fear potential retaliation from the individual of which they are reporting (Hendrix et al., 2022; Lankford et al., 2019; Madfis, 2014).

The warning behaviors were developed to aid threat assessment to make more reliable predictions of those who could be persons of concern (Meloy & O'Toole, 2011; Monahan, 2003). Individuals of concern usually are brought to the attention of law enforcement because the individual leaked information to another individual (Lankford et al., 2019; Palermo, 2003; Simons & Meloy, 2017). It is important to note that threat assessment, and the warning behaviors examined in this study, is not a comprehensive checklist. These preattack behaviors may or may not be exhibited in every circumstance by every potential mass shooter (Meloy et al., 2021; Simons & Meloy, 2017). Warning behaviors cannot be used to predict if an individual will commit violence in the future, but they can be used as an intervention strategy to prevent future violence (Cornell, 2020; Meloy et al., 2021; Simons & Meloy, 2017). When utilized in combination to other violence risk assessments, such as the Historical, Clinical and Risk Management-20, the warning behaviors could delve more specifically into a person's risk of committing a mass shooting, and identify areas to target to lower risk (Meloy et al., 2012).

These warning behaviors might also be able to assist officers in identifying a potential shooter, but an appropriate response is still needed. Currently, there does not seem to be a protocol in place on how to handle potential threats. Unless the individual has broken the law, not much can be done by law enforcement. Officers could potentially collaborate with parents, schools, and mental health professionals when reports of a potential shooter are made. This multidisciplinary response allows for the individual to get connected to helpful services to reduce the risk of the mass shooting from occurring, and for additional parties to be aware of the potential threat. This response also allows for a rehabilitative approach of potential shooters instead of a punitive response, where the risk of the individual would usually not be reduced through treatment.

Findings from the 27 manifestos suggest two additional areas for prevention. First, positive law enforcement presence in the community may reduce these attacks. As the Isla Vista perpetrator indicated, police presence in the community was a deterrent when he was planning his attack. He was forced to select a date and location that did not have a law enforcement presence. The second was the limit of access to guns. All of the shooters in the present

study were able to access guns, even when there are precautions in place to prohibit them from obtaining them. The Aurora, Colorado perpetrator was able to purchase a weapon even though he diagnosed with a mental illness and under the supervision of a psychiatrist. The Columbine High School perpetrators were able to obtain guns even though they were under the age of 18. The two asked a friend who was 21 to purchase the guns for them. These examples reveal that there are areas for improvement in the United States' gun policy.

### Limitations

Mass shootings are a rare occurrence (Bondü & Scheithauer, 2011; Gill et al., 2017; Lankford & Madfis, 2018), which makes manifestos left by the offenders even more rare due to every shooter not leaving behind information in reference to their attacks. This is to the detriment to those studying this phenomenon because the lack of data from the shooter's perspective does not allow for statistical models to be created, or validity to be reached (Meloy et al., 2004; Metzl & MacLeish, 2015). Additionally, four shooters in this study produced more than one manifesto. The use of multiple manifestos by one shooter may have oversaturated the results due to those individuals potentially repeating the warning behaviors identified in their other manifesto.

This study was also prone to confirmation bias because these warning behaviors are being examined retrospectively. It might be easier to identify these behaviors when the lives of innocent people are not at stake. It may also be easier to identify these behaviors retrospectively because there might be confounding factors that arise when attempting to recognize them prospectively (Meloy, Habermeyer, & Guldemann, 2015).

Last, this study only used one source of data to test the eight warning behaviors. This may have led to missing information. It is possible that the shooters did exhibit energy bursts or directly communicate threats, but since it was not mentioned in their manifestos, it could not be coded. Multiple sources of data, not just from the shooter, could address this issue and create a better picture of the preattack behaviors of mass shooters.

### Future Research

Further research is essential to evolve the understanding of the reliability and validity of the eight

warning behaviors discussed above (Meloy et al., 2014). While the eight warning behaviors have only been examined in known mass shooters after the attacks, research in their ability to identify shooters before they are able to commit their attack would be beneficial. Clinical and field work would be necessary before the warning behaviors could be considered reliable or valid.

The Internet is the most utilized platform for modern mass shooters to leak information about their attack (Bondü & Scheithauer, 2014; Meloy & O'Toole, 2011). Social media or blog posts commonly revealed leaked information pertaining to shooters' intentions. The Internet is a platform for the shooter to publish their ideologies and garner admiration from other individuals (Cohen-Almagor, 2014). The Internet would be a good place to start the prevention of mass shootings. In response to the shooting at an elementary school in Newtown, Connecticut, the New York Police Department discussed potentially including online searches to identify potential shooters and intervene in cyberspace (Wilson, 2012). Some research has been done along these lines with terrorist groups. Choi et al. (2014) used a word similarity approach to effectively identify terrorism related documents on the Internet. This technique could potentially be used with mass shooters as well. The present study showed that the warning behaviors are there because they were identified after the attacks happened. Next steps would involve defining and identifying potential warning behaviors and conducting longitudinal research to examine subsequent threats and behaviors. With the tactics employed in the literature above, early identification is likely and these attacks may be easier to prevent as interventions for the perpetrator can be initiated before an attack occurs.

With the amount of information released by the shooter, it can be assumed that more of these mass shootings would be stoppable if persons are proactively looking for the warning signs noted above. Gill et al. (2017) proposed that there might be barriers that prevent people from reporting these leaked threats or details. Further research should examine the possible barriers to reporting in order to alleviate them so people are more inclined to give information to authorities.

### Conclusions

The present study identified six out of the eight preattack warning behaviors proposed by

Meloy et al. (2012). Directly communicated threat and energy burst may be able to be identified in person by those close to the shooter. Further clinical research is necessary to validate the warning behaviors prospectively.

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