



Identifying Potential Mass Shooters and Suicide Terrorists With Warning Signs of Suicide, Perceived Victimization, and Desires for Attention or Fame

Adam Lankford

Department of Criminology & Criminal Justice, The University of Alabama

ABSTRACT

In the United States and Europe, the distinction between public mass shooters and suicide terrorists no longer seems particularly meaningful. A number of public mass shooters have considered using bombs and claimed to be sacrificing themselves for an ideological cause, and many suicide terrorists have attacked without organizational support, using firearms, for what appear to be largely personal reasons. Previous research has also documented several common factors in these offenders' lives, including (a) suicidal motives and life indifference, (b) perceived victimization, and (c) desires for attention or fame. These factors are not always easy for observers to recognize in advance, so mental health professionals, the public, and law enforcement officials might need help from experts to more successfully identify at-risk individuals. This article reviews the evidence of each factor, provides a list of specific warning signs, and offers recommendations for future research. Ultimately, an evidence-based approach to prevention could help save both the lives of many potential victims and the lives of the would-be attackers themselves.

ARTICLE HISTORY

Received 4 July 2017
Revised 26 December 2017

Some types of crime might be almost impossible to prevent. For instance, many spontaneous crimes, crimes of passion, arguments that escalate to crime, and crimes committed under the influence of alcohol or drugs occur after very little forethought (Felson & Massoglia, 2012; Wilson & Petersilia, 2002). In such cases, it might be extremely difficult for security officials to proactively intervene, because the offenders themselves might not have predicted their own anger, lack of self-control, or violence. The window for prevention could be only a few seconds between the offender having the criminal thought and committing the criminal act.

Public mass shootings and suicide attacks fit a very different profile: They are typically premeditated acts of mass murder that are planned for days, weeks, months, or even years (Blair & Schweit, 2014; Kelly, 2012; Lankford, 2013; Merari, 2010; Pedahzur, 2005). Although this prolonged planning can increase the sophistication and lethal consequences of such attacks, it also presents a far greater opportunity for successful prevention.

Of course, human psychology is exceedingly complex, and it is often impossible to know with complete certainty what someone will do in a given situation. However, by bolstering both the public and mental health professionals' understandings of key warning signs among at-risk individuals, we might be able to increase their ability to intervene or reach out for help. This information could also increase law enforcement and security officials' ability to identify which suspects are most likely to engage in violent attacks.

This article (a) reviews the evidence of several common factors in the lives of public mass shooters and suicide attackers, (b) provides a list of specific warning signs to guide the identification of at-risk individuals, and (c) offers several recommendations for future research in this area.

Common factors among public mass shooters and suicide attackers

For decades, public mass shooters were thought to be a completely different offender type from suicide terrorists. The most obvious behavioral difference was that the mass shooters used guns, whereas the suicide terrorists used bombs. In addition, mass shooters were almost always lone offenders, whereas suicide terrorists were almost always affiliated with terrorist organizations. Finally, many scholars believed that there were major psychological differences between the two types. Public mass shooters were assumed to be mentally ill and killing for personal reasons, whereas suicide terrorists were assumed to be mentally healthy and killing for religious and ideological ones (Lankford, 2013; Lankford & Hakim, 2011; Pape, 2005).

In the United States, Europe, and some other contexts, these distinctions no longer seem so clear cut. A number of public mass shooters, including school shooters, have considered using bombs and claimed to be sacrificing themselves for a religious or ideological cause, such as Christianity, Islam, neo-Nazism, eugenics, racial struggles, ethnocentrism, masculine

supremacy, or antigovernment resistance (Ames, 2005; Langman, 2015; Lankford, 2013; Newman & Fox, 2009; Newman, Fox, Roth, Mehta, & Harding, 2004). Meanwhile, many suicide terrorists have attacked without organizational support, using firearms, for what appear to be largely personal reasons (Lankford, 2013; Lester, Yang, & Lindsay, 2004; Merari, 2010; Pedahzur, 2005).

When it comes to understanding these offenders, the mass shooter–suicide terrorist distinction might no longer be particularly meaningful. In fact, when the superficial differences such as skin color and religion are stripped away, it can be difficult to distinguish one type from the other. It was not an Islamic suicide terrorist who said he wanted to “hijack a hell of a lot of bombs and crash a plane into NYC with us inside”; it was one of the 1999 Columbine shooters (Cullen, 2009). It was not an Islamic suicide terrorist who referenced becoming a “martyr” and dying for God “to inspire generations of the weak and the defenseless people”; it was the 2007 Virginia Tech shooter (Lankford, 2016b). It was not an Islamic suicide terrorist who posted online for followers to “embrace martyrdom”; it was the 2011 Norway attacker (Lankford, 2013).

At the same time, in the United States over the past two decades, Islamic suicide terrorists have committed mass shootings at the Empire State Building, the CIA’s headquarters, the Los Angeles airport, the Fort Hood Army base, a workplace in San Bernardino, two military installations in Chattanooga, and a nightclub in Orlando. Islamic terrorists have also targeted college campuses, such as the University of North Carolina and Ohio State University. Many of these offenders appear very similar to other public mass shooters in the United States during the same period (Horgan, Gill, Bouhana, Silver, & Corner, 2016; Lankford, 2013).

In fact, researchers have increasingly found many areas of overlap. For example, unlike most people who engage in homicide, both types commit premeditated crimes, attempt to kill random strangers or bystanders, and often intend or expect to die after their attacks (Blair & Schweit, 2014; Horgan et al., 2016; Kelly, 2012; Lankford, 2013; Lankford & Hakim, 2011; Wilson & Petersilia, 2002). Naturally, there is some variation in their weapon choice: Some use guns, some use bombs, some use knives, and some use vehicles. However, this might be more reflective of their most accessible options than their underlying motives or psychology.

There are also several major factors that these attackers often have in common, including (a) suicidal motives and life indifference, (b) perceived victimization, and (c) desires for attention or fame. This specific triad of factors was originally identified by Lankford (2012), but additional evidence for each factor is summarized in the following sections.

Suicidal motives and life indifference

There are few premeditated crimes that come with a smaller chance of successful escape than suicide attacks and public mass shootings. By definition, suicide attacks are planned so the offender will die, and public mass shootings almost always end with the offender committing suicide, being killed by police, or being arrested and facing life imprisonment (Blair & Schweit, 2014; Kelly, 2012; Lankford, 2015; Merari, 2010).

What type of people would plan in advance to commit crimes that essentially guarantee that their lives, as they know them, are over? Not surprisingly, many who choose this path have suicidal motives and actively want to die, or are “life indifferent” and do not care about their self-preservation, survival, or future.

Retrospective research by the U.S. Secret Service on school shooters from 1974 to 2000 found that at least 78% had experienced suicidal thoughts or engaged in suicidal behavior before their attack (Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002), and follow-up studies examining school shooters from 1974 to 2008 found evidence that more than 90% had experienced suicidal thoughts, engaged in suicidal behavior, or exhibited signs of mental illness (Newman & Fox, 2009; Newman et al., 2004). The prevalence of suicidal motives among other mass shooters might be even higher: Those who attack at other public locations actually commit suicide or “suicide by cop” even more frequently than school shooters (Kelly, 2012; Lankford, 2013, 2015). In addition, the number of offenders who die at the crime scene is only a fraction of those who planned on doing so. Many suicidal mass shooters change their minds at the last moment, or are tackled or incapacitated before they can end their own lives (Blair & Schweit, 2014; Kelly, 2012; Langman, 2015; Lankford, 2013, 2015; Mullen, 2004; Newman et al., 2004).

A significant proportion of suicide terrorists also appear to have suicidal motives or be indifferent to their survival. Although there are debates about whether intent to commit “martyrdom” should be considered suicide ideation, previous studies have identified many offenders with classic signs of suicidality (Lankford, 2013, 2017; Lester et al., 2004; Merari, 2010). For example, based on their direct assessment of preemptively arrested Palestinian suicide bombers, Merari’s (2010) research team found that more than 50% were struggling with depression and 40% had suicidal tendencies. In addition, Lankford’s (2013) retrospective study of suicide terrorists who successfully carried out their attacks and thwarted suicide terrorists who failed to detonate or who were arrested prior to their attacks found that more than 135 of these individuals exhibited risk factors for conventional suicide. Many of these offenders had admitted having suicidal motives or mental health problems, or were thought to be suicidal, depressed, or mentally ill by their families or friends (Lankford, 2013). Furthermore, of the 26 individuals who were originally approved for the September 11, 2001 terrorist attacks by Al Qaeda leaders, at least 5 have been directly assessed with severe mental health problems, such as depression and schizophrenia, and at least 8 more exhibited symptoms of mental health problems or suicidal motives, but died before they could be directly assessed (Lankford, 2017).

More broadly, the evidence on suicide terrorists’ psychological struggles is further supported by statements from several terrorist leaders and dispatchers, who have admitted they seek suicide bombers who are “desperate and sad,” who are “anxious, worried, and depressed,” who believe “Life has no meaning but pain,” and who think “death is better than living the way they do” (Berko, 2007, 2012; Stern, 2003). Security officials in Iraq and Israel have also suggested that a significant percentage of attackers are “mentally challenged or are suffering from

psychological disorders” or “were motivated by a desire to commit suicide, rather than by ideology” (Lieber, 2017; Qaisi, 2012).

Perceived victimization

In addition to their suicidal motives or life indifference, many public mass shooters and suicide attackers also perceive themselves to have been victimized by others. They often make this quite clear in comments to those around them, or in the suicide notes, journals, manifestos, videos, and online posts they often leave behind (Langman, 2015; Lankford, 2013; Merari, 2010; Newman & Fox, 2009; Newman et al., 2004; Pedahzur, 2005). The terms they use to describe their victimization vary: Different offenders have referenced disrespect, bullying, discrimination, persecution, oppression, humiliation, and other forms of mistreatment (Langman, 2015; Lankford, 2013; Merari, 2010; Newman & Fox, 2009; Newman et al., 2004; Pedahzur, 2005).

Whereas some offenders emphasize their own suffering, others reference the suffering of a larger group that seems connected to their personal experience (Atran, 2010; Langman, 2015; Lester et al., 2004; Merari, 2010; Pape, 2005; Pedahzur, 2005). Perceptions that one’s group has been victimized might be insufficient for motivating this type of self-destructive violence unless the individual also experiences something more deeply personal. In particular, those with group-based grievances seem more likely to commit public mass shootings or suicide attacks if they feel like they have been victimized on an individual level as well (Lankford, 2013, 2017).

Overall, the U.S. Secret Service retrospectively found that 71% of school shooters from 1974 to 2000 “felt persecuted, bullied, threatened, attacked or injured by others” (Vossekuil et al., 2002, p. 21), and additional studies have found similar themes in the lives of many other mass shooters (Ames, 2005; Langman, 2015; Lankford, 2013; Levin & Madfis, 2009; Newman et al., 2004). In turn, although at least nominally, most suicide terrorists attack based on the premise that their people have been oppressed or marginalized, many offenders have also cited specific ways they or their loved ones have been mistreated (Lankford, 2013; Lester et al., 2004; Merari, 2010; Pape, 2005; Pedahzur, 2005).

Sometimes offenders’ perceptions of suffering can be accurate, and linked to real incidents in their lives. For example, many mass shooters and suicide attackers have experienced significant adversity, such as school failures or unemployment, or being suspended, expelled, laid off, fired, or disciplined in some other way (Ames, 2005; Atran, 2010; Langman, 2015; Lankford, 2013; Lankford & Hakim, 2011; Levin & Madfis, 2009; Newman & Fox, 2009; Newman et al., 2004; Pedahzur, 2005; Vossekuil et al., 2002). Similarly, those who complain about the suffering of their national, religious, racial, ethnic, or social group might be citing actual mistreatment, bias, or inequities. However, in other cases, the adversity or inequities could be real, but the perceptions of conspiracies against them and malicious persecution or oppression might be wildly exaggerated. In the most extreme cases, offenders’ perceptions might be so distorted that their alleged victimization is largely a product of their own thoughts.

Notably, public mass shooters and suicide terrorists typically use their perceived suffering to justify lethal attacks against others. Some reference one of the most common rationalizations for violence—self-defense—and suggest that those who have been harmed in the past have the right to protect themselves from being harmed again (Langman, 2015; Lankford, 2015; Newman et al., 2004). Others rationalize their attacks based on notions of retribution, and suggest that the people who have made them suffer now deserve to suffer as well (Langman, 2015; Lankford, 2013, 2015; Merari, 2010; Newman et al., 2004; Pedahzur, 2005).

Desires for attention or fame

Another common characteristic among some public mass shooters and suicide attackers is the desire for attention or fame. In general, this is a very unusual motive for criminal behavior, because most law breakers want to remain unknown so they can avoid arrest and punishment. However, because many mass shooters and suicide attackers intend or expect to die, they might not fear the consequences of being publicly identified. In fact, some eagerly welcome it.

The evidence of fame-seeking is unambiguous for a certain proportion of public mass shooters, because they openly admitted it (Bushman, 2017; Langman, 2017a; Lankford, 2016b; Lankford & Hakim, 2011; Lankford & Madfis, 2017; Larkin, 2009). For example, Lankford (2016b) documented 24 cases of offenders who explicitly stated that they wanted attention and fame or directly contacted media organizations to get it. Notably, he found that these fame-seekers were not representative of the average mass shooter, but rather of the most deadly offenders (Lankford, 2016b). This makes sense, because some mass shooters are exploiting the direct relationship between casualty counts and media coverage. As the Umpqua Community College shooter accurately summarized, “Seems the more people you kill, the more you’re in the limelight” (Lankford, 2016b, p. 126). Some of the most lethal mass shootings in U.S. history have been committed by offenders who sought attention and fame, including the 1966 University of Texas Tower shooting, the 1999 Columbine attacks, the 2007 Virginia Tech shooting, the 2012 Aurora movie theater shooting, the 2012 Sandy Hook Elementary school shooting, and the 2016 Orlando nightclub shooting (Bushman, 2017; Cullen, 2009; Langman, 2017a; Lankford, 2016b; Lankford & Madfis, 2017; Larkin, 2009; Lavergne, 1997).

The evidence of fame-seeking among suicide terrorists requires more interpretation, because even though many have admitted wanting attention and directly orchestrated their attacks to get it, they often claim they want this attention for their cause. However, prior research has shown that suicide terrorists are often driven by a deep desire to enhance their public reputation and personal significance (Belanger, Caouette, Sharvit, & Dugas, 2014; Kruglanski, Chen, Dechesne, & Fishman, 2009). Much like some mass shooters, they attempt to compensate for feeling underappreciated by doing something dramatic that will get them recognized (Belanger et al., 2014; Kruglanski et al., 2009; Lankford, 2013; Lankford & Hakim, 2011). In fact, terrorist organizations often employ recruiting and radicalization strategies that are specifically designed to capitalize on this

desire for personal attention. By producing martyrdom videos, murals, calendars, keychains, posters, postcards, and pennants with the names and photos of past suicide terrorists, they show potential participants that committing a suicide attack is a path to fame and glory (Hoffman, 2006; Pedahzur, 2005).

Identifying at-risk individuals

Successful crime prevention efforts require many people to play a role. For instance, the public, mental health professionals, and law enforcement often need to work together. The public and mental health professionals need to serve as the eyes and ears of law enforcement. Not only do civilians outnumber police officers in the United States by a ratio of more than 300:1, but they also observe many troubling behaviors and hear many threatening statements that police officers are unlikely to witness (Horgan et al., 2016; Lankford, 2013, 2017; Meloy, Hoffmann, Guldemann, & James, 2012; Meloy, Hoffmann, Roshdi, & Guldemann, 2014; Meloy & O'Toole, 2011; Pollack, Modzeleski, & Rooney, 2008; Vossekuil et al., 2002). In addition, mental health professionals could offer to provide consultations to the family, friends, or acquaintances of at-risk individuals; administer psychological treatment to the at-risk individuals themselves; report at-risk individuals to law enforcement; or make other recommendations for intervention. In turn, law enforcement and security officials also need to bring sufficient expertise to these investigations, so they can be as effective as possible at collecting and analyzing evidence and differentiating real threats from fake ones.

Unfortunately, although members of the public, mental health professionals, and law enforcement officers frequently receive important information about mass shooters and suicide terrorists before their attacks that should greatly increase the likelihood of prevention, they often do not know what to make of it (Brown, 2015; Cullen, 2009; Ferrugia, 2012; Horgan et al., 2016; Lankford, 2013, 2017; Meloy et al., 2012; Meloy et al., 2014; Meloy & O'Toole, 2011; Pollack et al., 2008; Santora, Shah, Goldstein, & Goldman, 2016; Schmidt & Schmitt, 2014; Vanden Brook, 2014; Vossekuil et al., 2002; Webster Commission, 2012; Wilber, 2016; Winter, 2013). In some cases, they do not recognize that what they heard or saw was even important; in other cases, they might realize that they witnessed something unusual, but do not know how to interpret it, what other questions to ask, or which other warning signs to look for.

To successfully prevent as many mass shootings and suicide attacks as possible, it might be helpful to take an evidence-based approach to identifying at-risk individuals, and focus on the three common factors reviewed earlier: (a) suicidal motives and life indifference, (b) perceived victimization, and (c) desires for attention or fame. Although these factors are not conceptually complex, they can show up in offenders' lives in a variety of different ways, and are not always easy for observers to recognize in advance (Joiner, 2010; Lankford, 2013). Therefore, specific warning signs for each of these three factors are provided later.

First, however, the issue of false positives warrants some discussion. Even if most public mass shooters and suicide terrorists exhibit some of the warning signs provided here, that does not mean that everyone who exhibits some of these warning

signs will inevitably become a mass killer. Subject-area experts, mental health professionals, law enforcement and security officials, and members of the public are encouraged to consider the potential consequences of prematurely labeling someone a threat if he or she does not have violent intentions, along with the importance of balancing the need to protect the public against the need to protect the rights of the individual involved.

At the same time, it should be emphasized that the consequences of false positives are significantly reduced if mistakenly identifying someone or erring on the side of caution primarily results in the improvement of that person's life. After all, intervention does not always need to be negative—it can actually benefit the at-risk individuals themselves. For example, in their efforts to prevent future terrorist attacks, some countries have developed programs that provide counseling, education, vocational training, positive-thinking and self-esteem classes, and other life skills and support for radicalized individuals who have adopted terrorist ideologies but have not yet committed violent offenses (Gunaratna, 2009; Lankford & Gillespie, 2011; Stern, 2010). More generally, sometimes medication, therapy, or other prosocial efforts can actually save a person's life (Joiner, 2005; Maris, Berman, & Silverman, 2000), and past research suggests that helping at-risk individuals find new hobbies, jobs, friends, or romantic relationships could significantly reduce their risks of offending (Hoffman, 2001; Lankford & Gillespie, 2011). This makes sense: Giving people a strong desire to live and helping them get excited about their future opportunities might largely eliminate the attraction of these self-destructive crimes in the first place.

Warning signs: Suicidal motives and life indifference

Although each of the three aforementioned factors might be unhealthy, suicidal motives and life indifference are clearly the most serious. Observers who believe someone they know is suicidal should immediately intervene, regardless of whether or not the at-risk individual exhibits additional factors or seems likely to harm other people.

Leakage

The most direct warning sign for suicide or mass murder and suicide is often the individual's leakage of intent (Meloy et al., 2012; Meloy et al., 2014; National Institute of Mental Health, 2017). In general, crisis intervention guidelines summarize that "Research indicates that up to 80% of suicidal people signal their intentions to others, in the hope that the signal will be recognized as a cry for help. These signals often include making a joke or threat about suicide, or making a reference to being dead" (Crisis Centre, 2017). Many public mass shooters and suicide attackers have made similar statements prior to their attacks (Horgan et al., 2016; Lankford, 2013; Meloy et al., 2012; Meloy et al., 2014; Meloy & O'Toole, 2011; Pollack et al., 2008; Vossekuil et al., 2002).

Social and situational pressures

Some people commit suicide attacks or suicidal mass shootings primarily because of social or situational factors, such as encouragement from others, peer pressure, or coercion to attack; the desire to escape impending arrest, capture, or

judicial punishment by dying beforehand; or the desire to escape some other future suffering by dying beforehand (Berko, 2007; Lankford, 2013, 2016a; Lester et al., 2004; Merari, 2010; Pedahzur, 2005). This is especially important to emphasize because in such cases, the individuals who choose to die might not have any history of psychological problems, but could be instead primarily responding to these social or situational variables. If the pressures they experience are particularly intense, however, that can cause them to experience temporary mental health symptoms in their final days, such as significant depression, anxiety, or stress (Berko, 2007; Lankford, 2016a; Merari, 2010).

Personal characteristics

Many personal characteristics can be warning signs for suicide. To begin with, people with suicidal motives often have a personal history or family history of suicide ideation, suicidal behavior, mental health problems, or violence (National Institute of Mental Health, 2017). Some public mass shooters and suicide terrorists have struggled with mental health problems that include depression, posttraumatic stress disorder, substance abuse disorder, autism spectrum disorder, bipolar disorder, schizophrenia, or other forms of psychosis or psychopathology—and others suffered significant abuse or trauma that could have powerful psychological consequences (Langman, 2009, 2015; Lankford, 2013, 2017; Merari, 2010; Newman & Fox, 2009; Newman et al., 2004). Additionally, individuals who are socially withdrawn or who feel isolated, marginalized, or like they are a burden to their loved ones appear to have a higher risk of suicide in general (Joiner, 2005; Maris et al., 2000)—and previous research has identified these feelings among some mass shooters and suicide terrorists (Langman, 2015; Lankford, 2013; Lester, 2011; Newman & Fox, 2009; Newman et al., 2004). Other warning signs for suicide include reckless or risk-taking behavior, anger, dramatic mood changes, increased anxiety or agitation, and increased alcohol or drug use (National Institute of Mental Health, 2017). Finally, although there is no single personality type for people who commit mass shootings or suicide attacks, some personality traits appear correlated with higher risks of suicide and higher interest in martyrdom—such as high levels of openness to experience and neuroticism, and low levels of conscientiousness, extroversion, and agreeableness (Ayub, 2015; Beautrais, Joyce, & Mulder, 1999; Belanger et al., 2014; Blüml et al., 2013; Reyes et al., 2017; Yen & Siegler, 2003).

Identification with others

Another warning sign for suicide is if the individual has expressed deep empathy or identification with other people who committed suicide or recently died, such as family members, peers, or celebrities (National Institute of Mental Health, 2017). Many public mass shooters and suicide terrorists have done this in the past (Langman, 2017b; Lankford, 2013; Lankford & Madfis, 2017; Meloy et al., 2012; Meloy et al., 2014).

Psychological fixation

The thought process of individuals who are at risk of committing an attack might become increasingly fixated, obsessed, or pathologically preoccupied (Meloy et al., 2012; Meloy et al.,

2014). In general, suicidal people might be fixated on the belief that they have nothing to live for, that they are trapped in a hopeless situation, or that they are helpless to solve their problems in constructive ways (National Institute of Mental Health, 2017). As evidenced by past cases of mass shooters and suicide terrorists, others might be fixated on the supposedly painful or meaningless nature of life, existence, or the world in general (Langman, 2009; Lankford, 2013; Merari, 2010; Newman et al., 2004).

Planning and preparations

Certain planning and preparation behaviors could be warning signs that an individual is getting close to acting on his or her intent to attack (Meloy et al., 2012; Meloy et al., 2014). Specifically, if the person has been acquiring weapons or other materials needed for an attack, conducting reconnaissance or surveillance of a possible attack location or target, preparing legacy tokens (e.g., suicide note, last will and testament, autobiography, journal, martyrdom video, etc.), giving away personal possessions, or preparing to disconnect from loved ones (e.g., sending apologetic or farewell messages or making arrangements for their future welfare), those could be important signs that immediate intervention is needed (Lankford, 2013; Meloy et al., 2012; Meloy et al., 2014; National Institute of Mental Health, 2017).

Unreliable observers

As a reliability check, anyone trying to identify suicidal motives or life indifference among at-risk individuals should consider whether observers who provided or analyzed the evidence—including themselves—might have been influenced by popular misconceptions about suicide. Many people believe that suicidal individuals are typically uneducated, poor, simple-minded, irrational, delusional, or incapable of hiding their psychological pain (Joiner, 2010; Lester et al., 2004). Unfortunately, this can lead them to prematurely dismiss the possibility that anyone who violates these stereotypes might have suicidal motives. For example, in some past cases of mass shootings and suicide attacks, offenders were observed by their friends and family to smile, joke, laugh, and display other positive emotions in their final days (Klebold, 2016; Lankford, 2013; Meloy & O'Toole, 2011). Other offenders have been intelligent, well-educated, financially stable, and able to make rational arguments and plans—and when confronted, some have convincingly denied their own psychological problems or suicidality (Atran, 2010; Cha, Najmi, Park, Finn, & Nock, 2010; Langman, 2015; Lankford, 2013; Newman et al., 2004; Nock et al., 2010; Pape, 2005). None of this should be interpreted as conclusive proof that someone is in a healthy mental state. In fact, some suicidal people can even successfully deceive their own mental health care providers about their plans to die; they often rationally recognize that unless they deny their true intentions, they will be prohibited from accomplishing their fatal goals (Cha et al., 2010; Nock et al., 2010). Separately, observers should be careful not to dismiss the possibility that individuals could be suicidal because they used different language to describe their thoughts or motives, such as expressing the desire to “martyr” or “sacrifice” themselves or “go out in blaze of glory.” These are simply alternative ways that past offenders

have referenced their plans to intentionally die (Lankford, 2013, 2017; Merari, 2010).

Warning signs: Perceived victimization

People can perceive themselves to be victims without posing a deadly threat to themselves or others, but when people with suicidal motives or life indifference also exhibit the warning signs listed here, that could increase the risks that they harm others.

Leakage

The simplest sign of perceived victimization would be the individual's own explicit statements. Long before the individual became angry enough to consider an attack, he or she might have expressed frustration about being disrespected, bullied, discriminated, persecuted, oppressed, humiliated, or mistreated in some other way (Langman, 2015; Lankford, 2013; Merari, 2010; Newman & Fox, 2009; Newman et al., 2004; Pedahzur, 2005). Even more concerning would be if the individual had made jokes or threats that suggested that those responsible for his or her victimization need to suffer punishment or retribution.

Personal characteristics

Many personal characteristics can be warning signs for perceived victimization. For instance, the individual might have a history of trying and failing to get a remedy through the system, such as unsuccessful appeals to authority figures (e.g., government officials, teachers, bosses, etc.), formal complaints, or lawsuits (Ames, 2005; Lankford, 2013, 2015; Lankford & Hakim, 2011; Newman et al., 2004). Some of these individuals might have also struggled with mental health problems that could have exacerbated their perceptions of victimization. For example, public mass shooters and suicide terrorists who have suffered with depression, posttraumatic stress disorder, substance abuse disorder, autism spectrum disorder, bipolar disorder, schizophrenia, and other forms of psychosis or psychopathology might be more prone to increased paranoia, inaccurate perceptions of those around them, poor understanding of social cues, or limited social functioning (Langman, 2015; Lankford, 2013, 2017; Merari, 2010; Newman et al., 2004). Additionally, some proportion of offenders have been found to exhibit significant narcissistic tendencies, which can make them hypersensitive to perceived insults and ego threats, and more likely to respond with aggression (Bushman, 2017; Hoffmann, Roshdi, & Robertz, 2009; Langman, 2009; McGee & DeBernardo, 1999; O'Toole, 1999; Pape & Gunning, 2016). Finally, although anyone can have experiences that lead to feelings of victimization, some personality traits appear correlated with more perceived humiliation and perceived bullying, less forgiveness of others, and more revenge seeking—such as high levels of neuroticism, and low levels of extroversion and agreeableness (Balducci, Fraccaroli & Schaufeli, 2011; McCullough & Hoyt, 2002; Nielsen & Knardahl, 2015; Raggatt, 2006; Ross, Kendall, & Matters, 2004; Soric, Penezic, & Buric, 2013).

Identification with others

Some people who eventually become mass shooters or suicide terrorists express deep empathy or identification with other people who are either victims of the same type of perceived persecutor or oppressor, or aggressors who responded to their own victimization with violence (Langman, 2017a; Lankford, 2013; Lankford & Madfis, 2017; Meloy et al., 2012; Meloy et al., 2014).

Psychological fixation

Those who believe they have been victimized may be fixated on the idea that almost all of their personal problems, failures, or suffering are the fault of others (Ames, 2005; Langman, 2015; Lankford, 2013, 2017; Newman et al., 2004; Pedahzur, 2005). In some cases, these individuals might also be obsessed with group ideologies, propaganda, or narratives that emphasize the victimization of their group—such as those espoused by Islamic extremists, White supremacists, neo-Nazis, or other extreme or mainstream groups (Langman, 2015; Lankford, 2013, 2017; Merari, 2010). Furthermore, a particularly dangerous fixation that seems to proceed many attacks is the at-risk individual's belief that a symbolic category of people are to blame for his or her problems, beyond a single antagonist with whom there is a specific conflict or grudge. This can help offenders rationalize targeting a wide range of victims who symbolize their supposed oppressors, such as random Americans, foreigners, students, preps, jocks, co-workers, politicians, Blacks, Whites, gays, Muslims, Christians, Jews, women, soldiers, or police officers (Ames, 2005; Atran, 2010; Langman, 2015; Lankford, 2013, 2017; Merari, 2010; Newman et al., 2004; Pape, 2005; Pedahzur, 2005).

Unreliable observers

As a reliability check, observers should be careful not to dismiss findings of perceived victimization simply because the at-risk individual did not have direct connections to other extremists, terrorists, or criminals with radical perspectives (Brown, 2015; Cullen, 2009; Ferrugia, 2012; Santora et al., 2016; Schmidt & Schmitt, 2014; Vanden Brook, 2014; Webster Commission, 2012; Wilber, 2016; Winter, 2013). Additionally, although it might be tempting to assume that people who have false, psychotic, or delusional perceptions of their own victimization pose a greater threat than people whose victimization has some basis in fact (e.g., they were actually bullied), no current evidence supports that conclusion. Some public mass shooters and suicide terrorists have imagined that others were out to get them, whereas others have genuinely suffered various forms of mistreatment (Ames, 2005; Langman, 2015; Lankford, 2013, 2017; Merari, 2010; Newman et al., 2004; Pedahzur, 2005). Either type can pose a deadly threat.

Warning signs: Desires for attention or fame

On their own, desires for attention or fame might be far less dangerous than suicidal motives or perceived victimization, and some past offenders do not appear to have been fame-seekers at all. However, the specific combination of suicidality or life indifference, perceived victimization, and desires for attention or fame appears to be especially dangerous, and has

been found among many of the most lethal public mass shooters and suicide attackers of the past 50 years (Lankford, 2012, 2013, 2016b; Lankford & Madfis, 2017).

Leakage

The most direct sign of desires for attention or fame would be the individual's own statements about achieving those goals. In various cases, past offenders have asserted that they are going to be famous, that they will be on the news or on TV, that everyone will know their name, that they will do something important that makes everyone pay attention to them, that they will go out in a blaze of glory, or that getting negative attention or being infamous is better than being ignored (Langman, 2017a; Lankford, 2013, 2016b; Lankford & Madfis, 2017). Particularly concerning would be an individual's claim that his or her moment of fame is imminent.

Personal characteristics

Several different personal characteristics might be warning signs for unhealthy desires for attention or fame. To begin with, the at-risk individual might have a history of attention-seeking behavior, especially through negative actions or statements (e.g., breaking the law, breaking rules, or saying offensive things to get attention). Additionally, people with family members who are famous or attention-seekers—like the 2014 Santa Barbara shooter, the 2016 Orlando nightclub shooter, and the 2017 Las Vegas shooter—might be particularly likely to seek fame or attention as well. Regarding the psychology and personalities of at-risk individuals, it should be noted that people with narcissistic tendencies are especially likely to seek fame (Southard & Zeiger-Hill, 2016)—and as mentioned earlier, a number of past offenders have been narcissistic (Bushman, 2017; Hoffmann et al., 2009; Langman, 2009; McGee & DeBernardo, 1999; O'Toole, 1999; Pape & Gunning, 2016). At the same time, not all narcissists seem to fit a single personality profile. Some people with narcissistic tendencies appear more grandiose, extraverted, arrogant, dominant, and entitled, whereas others appear more vulnerable, introverted, desperate for affirmation, and likely to have secret fantasies of glory (Miller & Campbell, 2008; Southard & Zeiger-Hill, 2016; Wink, 1991). This variation seems to accurately reflect the personalities of past fame-seeking mass shooters and suicide terrorists, which include everything from fearless, confrontational aggressors to quiet, rage-filled loners (Bushman, 2017; Langman, 2017a; Lankford, 2013, 2016b, 2017).

Identification with others

Some people who eventually become mass shooters or suicide terrorists have shown strong identification with—or interest in—famous fictional characters or historical figures who were known for their violent ways (e.g., the characters from *Natural Born Killers*, Napoleon, Hitler, etc.), or famous mass shooters or terrorists (e.g., the Columbine school shooters, the Virginia Tech shooter, the Charleston church shooter, the 9/11 hijackers, etc.); (Helfgott, 2015; Langman, 2017a, 2017b; Lankford & Madfis, 2017; Larkin, 2009). This identification can be so strong that the famous figures become role models and the subject of in-depth research and idolization for the at-risk individuals

(Helfgott, 2015; Langman, 2017a, 2017b; Lankford & Madfis, 2017).

Psychological fixation

Individuals with these unhealthy desires might be fixated on the idea of being famous, on being better than everyone else at something, or on doing something that will make everyone pay attention to them. Some might also be obsessed with the idea that they have been forgotten or ignored by their peers, or the belief that they need to dramatically reframe their public reputation so they will be recognized as important or get the respect they deserve (Langman, 2017a; Lankford, 2016b; Newman & Fox, 2009; Newman et al., 2004).

Planning and preparations

Those who desperately want attention or fame might prepare legacy tokens (e.g., suicide notes, last wills and testaments, autobiographies, journals, martyrdom videos, etc.) or make online videos or social media posts to capitalize on the interest they expect to receive after their attacks. However, it should be emphasized that not all fame-seekers do this: Some seem to operate on the axiom that actions speak louder than words, and others appear to calculate that leaving behind a mystery will actually help them get more attention (Lankford, 2016b).

Unreliable observers

As a reliability check, observers should be careful not to dismiss an at-risk individual's jokes or threats about suicide or violence as only a "cry for help" or as only attention-seeking behavior. Even if the individual made such offensive or outrageous statements in an effort to get attention, that behavior itself could be a critical warning sign of someone who is at higher risk of committing a public mass killing.

Recommendations for future research and implementation

This article has suggested that subject-area experts, mental health professionals, law enforcement and security officials, and members of the public focus on three main factors to identify potential mass shooters and suicide terrorists: (a) suicidal motives and life indifference, (b) perceived victimization, and (c) desires for attention or fame. It then provided a list of clear warning signs for each of these factors to help observers understand the significance of what they hear or see. These warning signs are described in the text and listed in Appendices A, B, and C.

One example of a case where this information could have been extremely helpful is the 2016 Orlando nightclub shooting. FBI agents interviewed the eventual perpetrator and those who knew him multiple times before the attack. They came to the conclusion that the individual felt bullied by co-workers, and had made threats about committing terrorist attacks and dying as a "martyr" because he wanted to scare them as retribution (Wilber, 2016). However, if these investigators were more familiar with the aforementioned research, they might have recognized that (a) making threats about violence and one's own death are classic warning signs for suicide, and that (b) wanting revenge against alleged persecutors is clear evidence of

perceived victimization. Additionally, if they had dug a little deeper, they might have found out that (c) this individual had a history of unhealthy desires for attention—including having falsely bragged after the 9/11 attacks that Osama bin Laden was his uncle—and that his father also had a history of grandiose, fame-seeking behavior (Craig, Bearak, & Powek, 2016; Wan & Murphy, 2016). By using the information discussed earlier, the FBI might have been able to prevent one of the deadliest mass shootings in U.S. history.

Overall, the three factors and associated warning signs provided in this article represent a simpler approach than other scholars have proposed for threat assessment. Therefore, one practical benefit might be that these factors could be easier for mental health professionals, law enforcement, and the public to actually remember and use. For example, Meloy et al. (2012) and Meloy et al. (2014) identified eight warning behaviors for threat assessment, and then Meloy, Glaz-Ocik, Roshdi, and Hoffmann (2015) expanded this to eight warning behaviors and 10 distal characteristics for threat assessment of individual terrorists: pathway warning behavior, fixation warning behavior, identification warning behavior, novel aggression warning behavior, energy burst warning behavior, leakage warning behavior, last resort warning behavior, directly communicated threat warning behavior, personal grievance and moral outrage, framed by an ideology, failure to affiliate with an extremist group, dependence on the virtual community, thwarting of occupational goals, changes in thinking and emotion, failure of sexually intimate pair bonding and the sexualization of violence, nexus of psychopathology and ideology, greater creativity and innovation, and predatory violence.

Different approaches might have value, depending on the types of offenders being assessed, the intended audience, and the broader priorities of those involved. All 18 factors identified by Meloy et al. (2015) certainly appear in some offenders' lives, and by examining them in depth, researchers could gain further knowledge and insights on the psychology of some types of attackers. Meloy et al.'s (2012) list of warning behaviors also deserves credit for serving as a direct inspiration for this article.

Future research could help establish the optimal list of risk factors and warning signs needed for accurate threat assessment of public mass shooters and suicide attackers. As Einstein (1934, p. 165) wrote, "It can scarcely be denied that the supreme goal of all theory is to make the irreducible basic elements as simple and as few as possible without having to surrender the adequate representation of a single datum of experience." His statement is more colloquially paraphrased as "Everything should be made as simple as possible, but not simpler." Knowing whether the three factors and associated warning signs provided in this article strike the right balance between complexity and simplicity might require additional studies on this subject.

For instance, researchers might compare samples of past offenders with samples of troubled individuals who never became suicidal or violent, and thus help confirm whether the aforementioned factors and warning signs could serve as sufficiently precise screening criteria (Meloy et al., 2014). It could be that some of the warning signs provided in this article are unnecessary and can be removed, or alternatively, that some offender characteristics or behaviors must be added. Additional

research could help determine which warning signs are most predictive and which are less useful.

If more information about these offenders is eventually needed to improve the precision of threat assessment, another approach would be for researchers to conduct direct assessments of large samples of offenders. Those results would be difficult to obtain, given that these offenders are so rare and such a high percentage of them die as a result of their attacks. However, it might be possible to assess surviving offenders in prison after their incarceration. In particular, more scientific findings on the most common psychological and personality characteristics of public mass shooters and suicide attackers could be quite valuable. For example, by administering a variety of self-report personality measures to offenders, such as the Revised NEO Personality Inventory (Costa & McCrae, 1992), Minnesota Multiphasic Personality Inventory-2 (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989), or MMPI-2-RF (Tellegen & Ben-Porath, 2008), researchers could shed light on additional personality-based risk factors that could help identify potential offenders in advance.

After all, many studies have shown that family members, friends, and regular acquaintances often have reasonably accurate perceptions of the personalities of those around them (Brown & Bernieri, 2017; Funder & Randall, 1988; Lee & Ashton, 2017). There is also a growing body of research that suggests that personality types can be accurately identified by computer algorithms that analyze people's online behavior (Kern et al., 2014; Park et al., 2015; Youyou, Kosinski, & Stillwell, 2017). If evidence on the presence of suicidal motives and life indifference, perceived victimization, and desires for attention or fame could be combined with more detailed information on the common personality characteristics of these offenders, that could provide an even stronger evidence basis for interventions that could save lives.

We might never be able to prevent all public mass killings, but significant progress is definitely possible. Again, these are not random or spontaneous acts. They are typically premeditated crimes that come after days, weeks, months, or years of planning—which means there is an extended opportunity for successful intervention (Blair & Schweit, 2014; Kelly, 2012; Lankford, 2013; Merari, 2010; Pedahzur, 2005). The individuals who commit these crimes are not purely rational agents of violence. They are typically human beings in turmoil—which means they exhibit certain predictable tendencies and warning signs (Langman, 2015; Lankford, 2013, 2017; Meloy et al., 2012; Meloy et al., 2014; Merari, 2010; Newman et al., 2004). Ultimately, an evidence-based approach to prevention could help save both the lives of many potential victims and the lives of the would-be attackers themselves.

References

- Ames, M. (2005). *Going postal: From Reagan's workplaces to Clinton's Columbine and beyond*. Brooklyn, NY: Soft Skull.
- Atran, S. (2010). *Talking to the enemy: Religion, brotherhood, and the (un)making of terrorists*. New York, NY: HarperCollins.
- Ayub, N. (2015). Predicting suicide ideation through intrapersonal and interpersonal factors: The interplay of Big-Five personality traits and social support. *Personality and Mental Health, 9*, 308–318. doi:10.1002/pmh.1301

- Balducci, C., Fraccaroli, F., & Schaufeli, W. B. (2011). Workplace bullying and its relation with work characteristics, personality, and post-traumatic stress symptoms: An integrated model. *Anxiety, Stress, & Coping*, 24, 499–513. doi:10.1080/10615806.2011.555533
- Beautrais, A. L., Joyce, P. R., & Mulder, R. T. (1999). Personality traits and cognitive styles as risk factors for serious suicide attempts among young people. *Suicide and Life-Threatening Behavior*, 29, 37–47.
- Belanger, J. J., Caouette, J., Sharvit, K., & Dugas, M. (2014). The psychology of martyrdom: Making the ultimate sacrifice in the name of a cause. *Journal of Personality and Social Psychology*, 107, 494–515. doi:10.1037/a0036855
- Berko, A. (2007). *The path to paradise: The inner world of suicide bombers and their dispatchers*. London, UK: Praeger.
- Berko, A. (2012). *The smarter bomb: Women and children as suicide bombers*. Lanham, MD: Rowman & Littlefield.
- Blair, J. P., & Schweit, K. W. (2014). *A study of active shooter incidents, 2000–2013*. Washington, DC: Texas State University and Federal Bureau of Investigation, U.S. Department of Justice.
- Blüml, V., Kapusta, N. D., Doering, S., Brähler, E., Wagner, B., & Kersting, A. (2013). Personality factors and suicide risk in a representative sample of the German general population. *PLoS ONE*, 8, e76646. doi:10.1371/journal.pone.0076646
- Brown, B. (2015). *Isla Vista mass murder—May 23, 2014: Investigative summary*. Santa Barbara, CA: Santa Barbara County Sheriff's Office. Retrieved from www.sbsheriff.us/documents/ISLAVISTAINVESTIGATIVESUMMARY.pdf
- Brown, J. A., & Bernieri, F. (2017). Trait perception accuracy and acquaintance within groups: Tracking accuracy development. *Personality and Social Psychology Bulletin*, 43, 716–728. doi:10.1177/0146167217695557
- Bushman, B. (2017). Narcissism, fame-seeking, and mass shootings. *American Behavioral Scientist*. Advance online publication. doi:10.1177/0002764217739660
- Butcher, J. N., Dahlstrom, W. G., Graham, J. R., Tellegen, A., & Kaemmer, B. (1989). *Minnesota Multiphasic Personality Inventory–2 (MMPI–2): Manual for administration and scoring*. Minneapolis, MN: University of Minnesota Press.
- Cha, C. B., Najmi, S., Park, J. M., Finn, C. T., & Nock, M. K. (2010). Attentional bias toward suicide-related stimuli predicts suicidal behavior. *Journal of Abnormal Psychology*, 119, 616–622. doi:10.1037/a0019710
- Costa, P., & McCrae, R. (1992). The five-factor model of personality and its relevance to personality disorders. *Journal of Personality Disorders*, 6, 343–359. doi:10.1521/pedi.1992.6.4.343
- Craig, T., Bearak, M., & Powekk, L. (2016). Shooter Omar Mateen's father says he's saddened by massacre, calls gunman "a good son." *The Washington Post*. Retrieved from <http://wapo.st/1UL1zxE?>
- Crisis Centre. (2017). *FAQs about suicide*. Retrieved from <https://crisiscentre.bc.ca/frequently-asked-questions-about-suicide/>
- Cullen, D. (2009). *Columbine*. New York, NY: Twelve.
- Einstein, A. (1934). On the method of theoretical physics. *Philosophy of Science*, 1, 163–169. doi:10.1086/286316
- Felson, R. B., & Massoglia, M. (2012). When is violence planned? *Journal of Interpersonal Violence*, 27, 753–774. doi:10.1177/0886260511423238
- Ferrugia, J. (2012). Holmes psychiatrist notified campus police of concerns. *The Denver Channel*. Retrieved from <http://www.thedenverchannel.com/news/holmes-psychiatrist-notified-campus-police-of-concerns>
- Funder, D. C., & Randall, C. C. (1988). Friends and strangers: Acquaintanceship, agreement, and the accuracy of personality judgment. *Journal of Personality and Social Psychology*, 55, 149–158. doi:10.1037/0022-3514.55.1.149
- Gunaratna, R. (2009). The battlefield of the mind: Rehabilitating Muslim terrorists. *UNSCI Discussion Papers*, 21, 148–163.
- Helfgott, J. B. (2015). Criminal behavior and the copycat effect: Literature review and theoretical framework for empirical investigation. *Aggression and Violent Behavior*, 22, 46–64. doi:10.1016/j.avb.2015.02.002
- Hoffman, B. (2001, December). All you need is love: How the terrorists stopped terrorism. *The Atlantic*, pp. 288–292.
- Hoffman, B. (2006). *Inside terrorism*. New York, NY: Columbia University Press.
- Hoffmann, J., Roshdi, K., & Robertz, F. (2009). Zielgerichtete schwere gewalt und amok an schulen: Eine empirische studie zur prävention schwerer gewalttaten [Targeted severe violence and rampage at schools: An empirical study on the prevention of severe violent offenses]. *Kriminalistik*, 63, 196–204.
- Horgan, J., Gill, P., Bouhana, N., Silver, J., & Corner, E. (2016). *Across the universe? A comparative analysis of violent radicalisation across three offender types with implications for criminal justice training and education*. Retrieved from http://www.nccpsafety.org/assets/files/library/Comparative_Analysis_of_Violent_Behavior_and_Radicalization.pdf
- Joiner, T. (2005). *Why people die by suicide*. Cambridge, MA: Harvard University Press.
- Joiner, T. (2010). *Myths about suicide*. Cambridge, MA: Harvard University Press.
- Kelly, R. (2012). *Active shooter report: Recommendations and analysis for risk mitigation*. New York, NY: New York City Police Department.
- Kern, M. L., Eichstaedt, J. C., Schwartz, H. A., Dzurzynski, L., Ungar, L. H., Stillwell, D. J., ... Seligman, M. E. (2014). The online social self: An open vocabulary approach to personality. *Assessment*, 21, 158–169. doi:10.1177/1073191113514104
- Klebold, S. (2016). *A mother's reckoning: Living in the aftermath of tragedy*. New York, NY: Crown.
- Kruglanski, A. W., Chen, X., Dechesne, M., & Fishman, S. (2009). Fully committed: Suicide bombers' motivation and the quest for personal significance. *Political Psychology*, 30, 331–357. doi:10.1111/j.1467-9221.2009.00698.x
- Langman, P. (2009). Rampage school shooters: A typology. *Aggression and Violent Behavior*, 14, 79–86. doi:10.1016/j.avb.2008.10.003
- Langman, P. (2015). *School shooters: Understanding high school, college, and adult perpetrators*. Lanham, MD: Rowman & Littlefield.
- Langman, P. (2017a). Different types of role-model influence and fame-seeking among mass killers and copycat offenders. *American Behavioral Scientist*. Advance online publication. doi:10.1177/0002764217739663
- Langman, P. (2017b). *Role models, contagions, and copycats: An exploration of the influence of prior killers on subsequent attacks*. Retrieved from <https://schoolshooters.info/role-models-contagions-and-copycats-exploration-influence-prior-killers-subsequent-attacks>
- Lankford, A. (2012, December 18). What drives suicidal mass killers. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/12/18/opinion/what-drives-suicidal-mass-killers.html>
- Lankford, A. (2013). *The myth of martyrdom: What really drives suicide bombers, rampage shooters, and other self destructive killers*. New York, NY: Palgrave Macmillan.
- Lankford, A. (2015). Mass shooters in the USA, 1966–2010: Differences between attackers who live and die. *Justice Quarterly*, 32, 360–379. doi:10.1080/07418825.2013.806675
- Lankford, A. (2016a). Detecting mental health problems and suicidal motives among terrorists and mass shooters. *Criminal Behaviour and Mental Health*, 26, 315–321. doi:10.1002/cbm.2020
- Lankford, A. (2016b). Fame-seeking rampage shooters: Initial findings and empirical predictions. *Aggression and Violent Behavior*, 27, 122–129. doi:10.1016/j.avb.2016.02.002
- Lankford, A. (2017). A psychological re-examination of mental health problems among the 9/11 terrorists. *Studies in Conflict & Terrorism*. Advance online publication. doi:10.1080/1057610X.2017.1348742
- Lankford, A., & Gillespie, K. (2011). Rehabilitating terrorists through counter-indoctrination: Lessons learned from the Saudi Arabian program. *International Criminal Justice Review*, 21, 118–133. doi:10.1177/1057567711407333
- Lankford, A., & Hakim, N. (2011). From Columbine to Palestine: A comparative analysis of rampage shooters in the United States and volunteer suicide bombers in the Middle East. *Aggression and Violent Behavior*, 16, 98–107. doi:10.1016/j.avb.2010.12.006
- Lankford, A., & Madfis, E. (2017). Don't name them, don't show them, but report everything else: A pragmatic proposal for denying mass shooters the attention they seek and deterring future offenders. *American Behavioral Scientist*. Advance online publication. doi:10.1177/0002764217730854
- Larkin, R. (2009). The Columbine legacy: Rampage shootings as political acts. *American Behavioral Scientist*, 52, 1309–1326. doi:10.1177/0002764209332548

- Lavergne, G. M. (1997). *A sniper in the tower: The Charles Whitman mass murders*. Denton, TX: University of North Texas Press.
- Lee, K., & Ashton, M. C. (2017). Acquaintanceship and self/observer agreement in personality judgment. *Journal of Research in Personality, 70*, 1–5. doi:10.1016/j.jrp.2017.05.001
- Lester, D. (2011). Female suicide bombers. *Suicidology Online, 2*, 62–66.
- Lester, D., Yang, B., & Lindsay, M. (2004). Suicide bombers: Are psychological profiles possible? *Studies in Conflict & Terrorism, 27*, 283–295. doi:10.1080/10576100490461033
- Levin, J., & Madfis, E. (2009). Mass murder at school and cumulative strain: A sequential model. *American Behavioral Scientist, 52*, 1227–1245. doi:10.1177/0002764209332543
- Lieber, D. (2017). IDF report highlights Palestinians who “seek suicide” through attacks. *Times of Israel*. Retrieved from <http://www.timesofisrael.com/idf-report-highlights-palestinians-who-sought-suicide-through-attacks/>
- Maris, R. W., Berman, A. L., & Silverman, M. M. (2000). *Comprehensive textbook of suicidology*. New York, NY: Guilford.
- McCullough, M. E., & Hoyt, W. (2002). Transgression-related motivational dispositions: Personality substrates of forgiveness and their links to the Big Five. *Personality and Social Psychology Bulletin, 28*, 1556–1573. doi:10.1177/014616702237583
- McGee, J. P., & DeBernardo, C. R. (1999). The classroom avenger: A behavioral profile of school based shootings. *The Forensic Examiner, 8*, 1–16.
- Meloy, J. R., Glaz-Ocik, J., Roshdi, K., & Hoffmann, J. (2015). Investigating the individual terrorist in Europe. *Journal of Threat Assessment and Management, 2*, 140–152. doi:10.1037/tam0000036
- Meloy, J. R., Hoffmann, J., Guldemann, A., & James, D. (2012). The role of warning behaviors in threat assessment: An exploration and suggested typology. *Behavioral Sciences and the Law, 30*, 256–279. doi:10.1002/bsl.999
- Meloy, J. R., Hoffmann, J., Roshdi, K., & Guldemann, A. (2014). Some warning behaviors discriminate between school shooters and other students of concern. *Journal of Threat Assessment and Management, 1*, 203–211. doi:10.1037/tam0000020
- Meloy, J. R., & O’Toole, M. E. (2011). The concept of leakage in threat assessment. *Behavioral Sciences and the Law, 29*, 513–527. doi:10.1002/bsl.986
- Merari, A. (2010). *Driven to death: Psychological and social aspects of suicide terrorism*. Oxford, UK: Oxford University Press.
- Miller, J. D., & Campbell, W. K. (2008). Comparing clinical and social-personality conceptualizations of narcissism. *Journal of Personality, 76*, 449–476. doi:10.1111/j.1467-6494.2008.00492.x
- Mullen, P. E. (2004). The autogenic (self-generated) massacre. *Behavioral Sciences and the Law, 22*, 311–323. doi:10.1002/bsl.564
- National Institute of Mental Health. (2017). *Suicide prevention*. Retrieved from <https://www.nimh.nih.gov/health/topics/suicide-prevention/index.shtml>
- Newman, K. S., & Fox, C. (2009). Repeat tragedy: Rampage shootings in American high school and college settings, 2002–2008. *American Behavioral Scientist, 52*, 1286–1308. doi:10.1177/0002764209332546
- Newman, K. S., Fox, C., Roth, W., Mehta, J., & Harding, D. (2004). *Rampage: The social roots of school shootings*. New York, NY: Basic Books.
- Nielsen, M. B., & Knardahl, S. (2015). Is workplace bullying related to the personality traits of victims? A two-year prospective study. *Work & Stress, 29*, 128–149. doi:10.1080/02678373.2015.1032383
- Nock, M. K., Park, J. M., Finn, C. T., Deliberto, T. L., Dour, H. J., & Banaji, M. R. (2010). Measuring the suicidal mind: Implicit cognition predicts suicidal behavior. *Psychological Science, 21*, 511–517. doi:10.1177/0956797610364762
- O’Toole, M. E. (1999). *The school shooter: A threat assessment perspective*. Washington, DC: Federal Bureau of Investigation. Retrieved from <https://www.fbi.gov/file-repository/stats-services-publications-school-shooter-school-shooter/view>
- Pape, R. A. (2005). *Dying to win: The strategic logic of suicide terrorism*. New York, NY: Random House.
- Pape, R., & Gunning, W. (2016). ISIS and the culture of narcissism. *The Wall Street Journal*. Retrieved from <https://www.wsj.com/articles/isis-and-the-culture-of-narcissism-1467069159>
- Park, G., Schwartz, H. A., Eichstaedt, J. C., Kern, M. L., Kosinski, M., Stillwell, D. J., ... Seligman, M. E. (2015). Automatic personality assessment through social media language. *Journal of Personality and Social Psychology, 108*, 934–952. doi:10.1037/pspp0000020
- Pedahzur, A. (2005). *Suicide terrorism*. Cambridge, UK: Polity.
- Pollack, W., Modzeleski, W., & Rooney, G. (2008). *Prior knowledge of potential school-based violence: Information students learn may prevent a targeted attack*. Washington, DC: U.S. Secret Service and U.S. Department of Education.
- Qaisi, M. (2012, August 20). Al-Qaeda recruiting mentally challenged individuals for suicide attacks. *Al-Shorfa*. Retrieved from http://al-shorfa.com/en_GB/articles/meii/features/2012/08/20/feature-01
- Raggatt, P. (2006). Putting the five-factor model into context: Evidence linking big five traits to narrative identity. *Journal of Personality, 74*, 1321–1349. doi:10.1111/j.1467-6494.2006.00411.x
- Reyes, M. E., Davis, R. D., Arkoncel, C. A., Balingit, C. B., Chin, M. M., & Gatlula, N. M. (2017). Personality traits and suicide behavior of selected Filipino adolescents. *Suicidology Online, 8*, 31–40.
- Ross, S. R., Kendall, A. C., & Matters, K. G. (2004). A personological examination of self- and other-forgiveness in the five factor model. *Journal of Personality Assessment, 82*, 207–214. doi:10.1207/s15327752jpa8202_8
- Santora, M., Shah, P. Z., Goldstein, J., & Goldman, A. (2016). “Keep an eye on him,” Ahmad Khan Rahami’s father says he told F.B.I. *The New York Times*. Retrieved from <https://nyti.ms/2uC30x8>
- Schmidt, M. S., & Schmitt, E. (2014). Russia didn’t share all details on Boston bombing suspect, report says. *The New York Times*. Retrieved from <https://nyti.ms/2jL1Jld>
- Soric, I., Penezic, Z., & Buric, I. (2013). Big five personality traits, cognitive appraisals and emotion regulation strategies as predictors of achievement emotions. *Psychological Topics, 22*, 325–349.
- Southard, A. C., & Zeiger-Hill, V. (2016). The dark triad traits and fame interest: Do dark personalities desire stardom? *Current Psychology, 35*, 255–267. doi:10.1007/s12144-016-9416-4
- Stern, J. (2003). *Terror in the name of God: Why religious militants kill*. New York, NY: Ecco.
- Stern, J. (2010). Mind over martyr. *Foreign Affairs, 89*, 95–108.
- Tellegen, A., & Ben-Porath, Y. S. (2008). *Minnesota Multiphasic Personality Inventory–2 Restructured Form: Technical manual*. Minneapolis, MN: University of Minnesota Press.
- Vanden Brook, T. (2014). Report: Concerns about Navy Yard shooter never reported. *USA Today*. Retrieved from <http://usat.ly/1fWfFK2>
- Vossekuil, B., Fein, R., Reddy, M., Borum, R., & Modzeleski, W. (2002). *The final report and findings of the Safe School Initiative: Implications for the prevention of school attacks in the United States*. Washington, DC: U.S. Secret Service and U.S. Department of Education.
- Wan, W., & Murphy, B. (2016). On 9/11, the Orlando shooter’s classmates mourned. Some say he celebrated. *The Washington Post*. Retrieved from http://wapo.st/1sC8YGg?tid=ss_tw&utm_term=.272eff2a0e1a
- Webster Commission. (2012). *Final report of the William H. Webster Commission on the Federal Bureau of Investigation, counterterrorism intelligence, and the events at Fort Hood, Texas, on November 5, 2009*. Retrieved from <https://www.hsdl.org/?view&did=717443>
- Wilber, D. Q. (2016, July 12). The FBI investigated the Orlando mass shooter for 10 months—and found nothing. Here’s why. *Los Angeles Times*. Retrieved from <http://www.latimes.com/nation/la-na-fbi-investigation-mateen-20160712-snap-story.html>
- Wilson, J. Q., & Petersilia, J. (2002). *Crime: Public policies for crime control*. Oakland, CA: Institute for Contemporary Studies.
- Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology, 61*, 590–597. doi:10.1037/0022-3514.61.4.590
- Winter, J. (2013). Police warned Navy about gunman’s mental instability 6 weeks ago, report says. *Fox News*. Retrieved from <http://fxn.ws/lubaSed>
- Yen, S., & Siegler, I. C. (2003). Self-blame, social introversion, and male suicides: Prospective data from a longitudinal study. *Archives of Suicide Research, 7*, 17–27. doi:10.1080/1381110301569
- Youyou, W., Kosinski, M., & Stillwell, D. (2017). Computer-based personality judgments are more accurate than those made by humans. *PNAS, 112*, 1036–1040. doi:10.1073/pnas.1418680112

Appendix A. Warning signs: Suicidal motives and life indifference

Warning sign	Query	Yes/No?
Leakage	Has the individual made jokes or threats about suicide, martyrdom, self-sacrifice, or violent attacks?	
Social and situational variables	Could anyone be encouraging, pressuring, or coercing the individual to attack? Is there an anticipated crisis that the individual may be desperate to escape (e.g., impending arrest, prison sentence, court date, job termination, etc.)?	
Personal characteristics	Has the individual recently experienced a crisis (e.g., discipline at school or work, loss of a loved one, romantic breakup, financial loss, legal trouble, medical problem, etc.)? Does the individual have a personal history or family history of suicide ideation, suicidal behavior, mental health problems, or violence? Does the individual have mental health problems that correlate with higher suicide risk or interest in martyrdom? Does the individual feel socially isolated or marginalized, or like a social burden to loved ones? Does the individual have personality traits that correlate with higher suicide risk or higher interest in martyrdom (e.g., high levels of openness to experience, neuroticism; low levels of conscientiousness, extroversion, agreeableness)?	
Identification with others	Has the individual expressed deep empathy or identification with other people who committed suicide or recently died (e.g., family members, peers, or celebrities)?	
Psychological fixation	Does the individual appear fixated on the hopelessness of his or her situation and/or own helplessness to find solutions? Does the individual appear fixated on the painful or meaningless nature of life, existence, or the world in general?	
Planning and preparations	Has the individual been acquiring weapons or other materials needed for an attack? Has the individual been conducting reconnaissance or surveillance of a possible attack location or target? Has the individual been preparing legacy tokens (e.g., suicide note, last will and testament, autobiography, journal, martyrdom video)? Has the individual been giving away or getting rid of personal possessions? Has the individual been preparing to disconnect from loved ones (e.g., sending apologetic or farewell messages or making arrangements for their future welfare)?	
Missed evidence	Is there available evidence from people who know the individual or the individual's online behavior that might provide more accurate answers to any of the queries listed above?	
Unreliable observers	Is the observer dismissing the possibility that the individual could be suicidal because of classic misconceptions about suicide (e.g., that suicidal people always have severe mental disorders or cannot be articulate, intelligent, rational, educated, wealthy, or capable of displaying positive emotions)? Is the observer dismissing the possibility that the individual could be suicidal because the individual used different language to describe thoughts or motives (e.g., the desire to "martyr" or "sacrifice" himself or "go out in blaze of glory")?	

Appendix B. Warning signs: Perceived victimization

Warning sign	Query	Yes/No?
Leakage	Has the individual complained about his or her perceived victimization (e.g., disrespect, discrimination, humiliation, mistreatment, bullying, persecution, or oppression)? Has the individual made jokes or threats that his or her victimizers needed to suffer punishment or retribution?	
Personal characteristics	Does the individual have a personal history of trying and failing to get perceived victimization addressed through the system (e.g., unsuccessful appeals to authority figures, formal complaints, or lawsuits)? Does the individual have mental health problems that increase paranoia, distort accuracy of perceptions, distort understanding of social cues, or decrease social functioning? Does the individual have narcissistic tendencies that increase sensitivity to perceived slights or insults? Does the individual have personality traits that correlate with more perceived humiliation or perceived bullying, more revenge seeking, or less forgiveness of others (e.g., high levels of neuroticism; low levels of extroversion, agreeableness)?	
Identification with others	Has the individual expressed deep empathy or identification with other victims of the same type of perceived persecutor or oppressor? Has the individual expressed deep empathy or identification with other aggressors who responded to their own victimization with violence?	
Psychological fixation	Does the individual appear fixated on the idea that almost all of his or her personal problems, failures, or suffering are the fault of others? Does the individual blame a symbolic category of people for his or her problems, beyond a single individual or enemy with whom there is a specific conflict or grudge (e.g., Americans, foreigners, students, preps, jocks, co-workers, politicians, Blacks, Whites, gays, Muslims, Christians, Jews, women, soldiers, or cops)? Does the individual appear fixated on group narratives or ideologies that emphasize the victimization of that group's members (e.g., the ideologies of Islamic extremist, White supremacist, or neo-Nazi groups)?	
Missed evidence	Is there available evidence from people who know the individual or the individual's online behavior that might provide more accurate answers to any of the queries listed above?	
Unreliable observers	Is the observer underestimating the significance of perceived victimization because the victimization has some basis in fact (e.g., the individual was actually bullied)? Is the observer underestimating the significance of perceived victimization because the individual did not have direct connections to other extremists or people with radical perspectives?	

Appendix C. Warning signs: Desires for attention or fame

Warning sign	Query	Yes/No?
Leakage	Has the individual made statements about soon becoming famous, about being on TV or in the news, about everyone knowing his or her name, or about doing something that will make everyone pay attention?	
Personal characteristics	Does the individual have a personal history of attention-seeking behavior—especially through negative actions or statements, not only positive ones (e.g., breaking the law, breaking rules, or making offensive statements)? Does the individual have a family history of relatives who are famous or who engaged in attention-seeking behavior? Does the individual have narcissistic tendencies, either of the type that is more grandiose, extraverted, arrogant, dominant, and entitled, or the type that is more vulnerable, introverted, desperate for affirmation, and likely to have secret fantasies of glory?	
Identification with others	Has the individual shown strong identification with—or interest in—famous fictional or historical figures who were known for their violent ways and might be serving as role models (e.g., the characters from <i>Natural Born Killers</i> , Napoleon, Hitler, etc.)? Has the individual shown strong identification with—or interest in—famous mass shooters or terrorists who might be serving as role models (e.g., the Columbine school shooters, Virginia Tech shooter, Charleston church shooter, 9/11 hijackers, etc.)?	
Psychological fixation	Does the individual appear fixated on the idea of being famous, on being better than everyone else at something, or on doing something that will make everyone pay attention? Does the individual appear fixated on the idea that he or she has always been ignored? Does the individual appear fixated on the need to dramatically reframe his or her public reputation, so that he or she will be considered important or great instead of a loser or failure?	
Planning and preparations	Has the individual started creating legacy tokens (e.g., suicide note, last will and testament, autobiography, journal, martyrdom video, etc.) or made online videos or social media posts to capitalize on the interest he or she expects to receive after the attack?	
Missed evidence	Is there available evidence from people who know the individual or the individual's online behavior that might provide more accurate answers to any of the queries listed above?	
Unreliable observers	Is the observer dismissing the individual's suicidal statements or violent threats as "only" a cry for help or attention-seeking behavior, instead of recognizing that desires for fame and attention-seeking could be important warning signs?	