

Mental Illness and Mass Murder

What the Research Does and Does Not Tell Us

September 2016

Background

Mass murder is often associated in the public's mind with mental illness. Recent attacks have resulted in calls to reform the process for assessing and treating people with mental illnesses, including changes to legal rights (e.g., access to firearms) as well as building more psychiatric hospitals and committing greater numbers of people with mental illnesses to them. Underlying many of these appeals is a concern for public safety and an urgent desire to prevent mass killings. There is also a belief that "a properly structured mental health system" could successfully identify and intercept people who commit mass murder before they are able to act.

Although we believe the motives behind these appeals are unassailable, solutions based in reforming the mental health system or returning the system to some perceived golden age dominated by mental hospitals are misguided and will not achieve the intended results.

In this paper we explain that while there are common characteristics among many mass murderers, these characteristics are also present in people who do not commit murder. Unfortunately, the ability to predict who will perpetrate the relatively rare instance of mass murder is beyond the current capacity of behavioral science. Committing individuals to restrictive settings such as prisons or psychiatric hospitals solely based on characteristics common to mass murderers will result in confining far more individuals who would not commit mass murder than individuals who would. However, enhancing timely and assertive community-based treatment for people with mental illnesses who are at risk for committing violent acts – either against others or themselves – does hold promise for more broadly reducing the number of victims of violence in the United States each year.¹

Challenges in Identifying the Psychological Characteristics of Mass Murderers

While incidents of mass murder have a disproportionately traumatic effect on the communities where they occur and create fear and concern in society as a whole, they are rare compared to other types of violence. Because mass killings are so rare, it is difficult to use statistical methods

¹ Available best practices have shown a capacity to reduce criminal justice system involvement and violent behavior. Cusack, K.J. et al. (2010). Criminal justice involvement, behavioral health service use, and costs of forensic assertive community treatment: A randomized trial. *Community Mental Health Journal*, 46(4), 356-363. Swanson, J.W. et al. (2015). Involuntary out-patient commitment and reduction of violent behavior in persons with severe mental illness. *British Journal of Psychiatry*, 176(4), 324-331.

to identify a consistent set of predictive characteristics for people who commit these acts.² From 1999 to 2013, the largest number of mass public shootings (defined as four or more fatalities from firearms in a public location) in a given year in the United States was seven (7), which occurred in both 1999 and 2012.³ If we consider mass familicide shootings (defined as four or more fatalities of family members murdered with firearms), the greatest number committed between 1999 and 2013 was 16, occurring in 2012. These numbers are so low that no matter which risk factor one selects (antisocial tendencies, mental health problems, social isolation, recent social rejection, male gender, etc.), the overwhelming majority of people with these characteristics will not commit mass murder.

As a result, we simply do not know precisely how often mental illness is involved as a risk factor for mass murder. Anecdotal reports indicate that some people who commit mass murder have had mental health problems. However, because nearly 50% of people in the general population will experience symptoms of a mental disorder at some point in their lifetimes, journalists often identify mental illness in the history of a violent perpetrator even when there is no direct evidence of a link between mental illness and the person's violent act.⁴

Some of the perpetrators of mass murders committed over the past several decades have had mental illnesses, either at the time of the murders or at some point in their histories. There are also examples of people seeking and not obtaining mental health care prior to mass shootings. For example, the man who shot and killed seven church goers in Fort Worth in the late 1990s apparently attempted to obtain mental health care prior to perpetrating this mass murder. However, this person was apparently trying to access the outpatient treatment system, with no success, and thus this was not a case of a lack of psychiatric hospitals hindering this person's access to care.

Factors Observed to Be Associated with (but Not Known to Predict) Mass Murder

While people with certain behavioral health conditions—especially when combined with substance use disorders—are somewhat more at risk for violence (harm to self, harm to a person close to them),^{5,6} there is no evidence that they are typically the perpetrators of mass

² Swanson, J.W. (2011). Explaining rare acts of violence: The limits of evidence from population research. *Psychiatric Services*, 62:11, 1369.

³ Krouse, W.J. & Richardson, D.J. (2015, July). *Mass murder with firearms: Incidents and victims, 1999-2013*. Washington, DC: Congressional Research Service. Retrieved at <http://fas.org/sgp/crs/misc/R44126.pdf>.

⁴ Gilead, S., & Frank, R.G. (2014). Mental illness and violence: Lessons from the evidence. *American Journal of Public Health*, 104(2), e5-e6.

⁵ Appelbaum, P.S. (2006). Violence and mental disorders: Data and public policy. *American Journal of Psychiatry*, 163, 1319-1321.

⁶ Pulay, A.J, Dawson, D.A., Hasin, D.S., Goldstein, R.B., Ruan, W.J., Pickering, R.P., Huang, B., M.D., Chou, P. & Grant, P.F. (2008). Violent behavior and DSM-IV psychiatric disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Clinical Psychiatry*. 69.

killings. The best current research indicates that, even in people who have been hospitalized for their mental illnesses and have a history of violence, it is uncommon for symptoms of mental illness, such as psychosis, to precede their violent acts.⁷ This suggests that other factors shared with violent offenders who do not have mental illnesses are more important in predicting violence. Experts also point to the fact that episodic emotional crises (which are not the same as mental illness), when mixed with substance abuse, also put people at risk for violence. However, other factors that experts consulted for this paper believe are more likely to contribute to *mass murder*, especially when present in combination, include the following:

1. Particular motivations, such as revenge or envy;
2. Adoption of extremist beliefs that promote the use of violence to attain one's goals;
3. A complex mix of personality characteristics, including antisocial tendencies, lack of concern for others, self-centeredness, damaged self-esteem, and grandiosity; and
4. Social isolation.

As opposed to mental illness *per se*, there is a growing concern in the United States among researchers and law enforcement / security officials about the rise of extremist groups and influences and their relationship to mass killings.⁸ Mainstream religions are often used by extremist groups to promote violent and hateful ideologies. People who are attracted to these ideologies and looking for notoriety sometimes consider violent extremism. This constellation of factors may have been operating in the December 2015 San Bernardino mass murders. In a recent paper, Kruglanski and colleagues present a model of violent extremism, based on years of research and theory development in social psychology, that emphasizes three primary factors which are distinct from mental illness:

1. A **motivational component**, characterized by a quest for personal significance or revenge;
2. An **ideological component** that emphasizes the use of violence as an appropriate means to pursue goals; and
3. **Social processes** through which people identify with a group that has similar motivations and ideologies, and by which they are encouraged to engage in violence or terror as a way to advance their social standing within the group.⁹

Another type of mass murderer that has been identified by some experts is the "pseudocommando," who "kills in public during the daytime, plans [the] offense well in

⁷ Skeem, J., Kennealy, P., Monahan, J., Peterson, J., & Appelbaum, P. (2015). Psychosis uncommonly and inconsistently precedes violence among high-risk individuals. *Clinical Psychological Science*. DOI: 10.1177/2167702615575879.

⁸ An internet search yields hundreds of articles on this topic. See, for example, "DHS Intelligence Report Warns of Domestic Right-Wing Terror Threat" on CNN's website: <http://www.cnn.com/2015/02/19/politics/terror-threat-homeland-security/>.

⁹ Kruglanski, A.W. et al. (2014). The psychology of radicalization and deradicalization: How significance quest impacts violent extremism. *Advances in Political Psychology*, 35 (Suppl 1).

advance,” “comes prepared with a powerful arsenal of weapons,” expects to die during the massacre, and is driven by intense anger, resentment, and revenge.¹⁰ This type of mass murder is considered a sub-type of homicide-suicide that is extra-familial and does not have a strong link to mental illness.¹¹ When people with these and other characteristics that put them at risk for violence become socially isolated, the combination can place them at even greater risk.¹² The Columbine massacre may be representative of this type of mass murder.¹³ However, note that even here we do not have *scientifically valid evidence* of what causes someone to commit mass murder, only a constellation of characteristics that describes some people who commit mass murder.

Antisocial and narcissistic tendencies are also sometimes associated with mass murder, and paranoid tendencies also can be associated with violence.¹⁴ However, these personality traits may not precisely describe most mass murderers (we do not have complete data on the personality traits of such perpetrators), and the overwhelming majority of people with these characteristics certainly do not commit mass murder.

Another factor, often not discussed, is that many people who commit mass murder spend considerable time planning their violent rampages. While their motives are deeply disturbed, their cognitive capacities to plan and logically order their actions are more intact than is usually the case in people with serious mental illnesses who would be likely to fill beds in expanded mental hospitals and psychiatric wards.

Again, the primary conclusion from expert theorists and researchers who carefully examine the full array of factors associated with mass murder is that other factors, separate from untreated mental illness, are more clearly associated with increased risk of mass murder.

That said, one cannot claim that there is no relationship at all between untreated mental illness and violence. For example, the CDC reports that 41,149 people died by suicide in 2013 – more than twice the number of people who died by homicide and more than 25 times the number of people who died in a mass murder over the entire 15-year period ending in 2013.^{15,16} It is

¹⁰ Knoll, J.L. (2010). The “pseudocommando” mass murderer: Part I, The psychology of revenge and obliteration. *Journal of the American Academy of Psychiatry and Law*, 38, 87-94. Quotes are from p. 87.

¹¹ Knoll, 2010.

¹² Levin, J., & Madfis, E. (2009). Mass murder at school and cumulative strain: A sequential model. *American Behavioral Scientist*, 52, 1227-1245.

¹³ Levin & Madfis (2009).

¹⁴ Meloy, J.R. (2014, April). Seven myths of mass murder. *Psychology Today*. Retrieved on February 17, 2016 at <https://www.psychologytoday.com/blog/the-forensic-files/201404/seven-myths-mass-murder>.

¹⁵ Xu, J., Murhpy, B.S., Kochanek, K., & Bastian, B. (2016, February 16). Deaths: Final data for 2013. *National Vital Statistics Report*, 64(2). Hyattsville, MD: National Center for Health Statistic. Retrieved at http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_02.pdf.

widely known that people with depression and other mental illnesses are most at risk for suicide. So enhancements to the mental health system, while certainly only part of the range of solutions to the problem of violence, are likely to play a role in saving lives and increasing public safety, despite the lack of current ability to predict or prevent mass murder through these means.

Conclusion

Unfortunately, the potential effectiveness of mental health treatment or other social control solutions to prevent mass murder – either placing more people in psychiatric hospitals or increasing community-based treatment – is uncertain. Mass murderers are so rare that identifying them before they act is akin to trying to find “a needle in a haystack.” The salient characteristics of mass murderers are shared by millions more who never commit such tragic acts, defying public health solutions to these terrible events.

¹⁶ Krouse, W.J. & Richardson, D.J. (2015, July). Mass murder with firearms: Incidents and victims, 1999-2013. Washington, DC: Congressional Research Service. Retrieved at <http://fas.org/sgp/crs/misc/R44126.pdf>. The authors reported that 1,554 people died in mass shootings from 1999-2013.