

# Rampage Violence Requires a New Type of Research

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Tragedies such as school shootings and the assault on Congresswoman Gabrielle Giffords share features that define them as acts of “rampage violence.” These types of events can lead to despair about their inevitability and unpredictability.

To understand and prevent rampage violence, we need to acknowledge that current discipline-based violence research is not well suited to this specific challenge. There are numerous important, unanswered research questions that can inform policies designed to prevent rampage violence.

It is time to develop alternative research approaches to reduce the risk of rampage violence. Such approaches should incorporate transdisciplinary research models; flexible, outcomes-focused organizational structures similar to those used to investigate other catastrophic events; and an expanded inventory of analytic tools. (*Am J Public Health*. 2012; 102:1054–1057. doi:10.2105/AJPH.2011.300545)



Unidentified mourners comfort each other at Grace United Methodist Church in Copperas Cove, TX, after a funeral for Michael Griffith who was killed in a massacre at a Luby’s cafeteria in Killeen, TX, on October 16, 1991. Printed with permission of AP Wide World.

## WRITING IN 2003, KATHERINE

Newman and her colleagues at Princeton discussed the wave of mass school shootings that began in the 1990s in the United States.<sup>1</sup> She distinguished these events from other forms of school violence as being “rampage” shootings. She noted that rampage school shootings share features with many non-school-related episodes of mass violence; specifically, they are deadly acts committed by mentally disturbed males directed at organizations and institutions, involving persons not intimately known to them. Consider episodes such as the 1966 Texas Tower shooting, the deadliest campus shooting until the 2007 Virginia Tech massacre, in which 25-year-old Charles

Whitman killed 16 people and wounded 31 before being shot by police<sup>2</sup>; the 1991 Luby’s massacre in which 35-year-old George Hennard drove his truck into a Luby’s cafeteria in Killeen, Texas, shot 43 people, killing 23, and finally shot himself<sup>3</sup>; and the 2011 shooting of Congresswoman Gabrielle Giffords in Tucson, Arizona, in which 6 individuals were killed and 13 more injured by 22-year-old Jared Loughner.<sup>4</sup> These events, along with many acts of workplace violence and political terrorism committed by mentally disturbed males and directed at institutions, could be classified as episodes of “rampage violence” using this case definition.

Given their shared features, these tragic events may result

from a common pathology. Research to understand this pathology may lead to treatments and public policies that could reduce the risk of similar events. So far, however, this research has not been forthcoming. Many may believe that it would not be productive. As a national columnist wrote following the Giffords shooting, efforts to understand such events are founded on “the superstition that all behavior can be traced to some diagnosable frame of mind that is a product of promptings from the social environment.”<sup>5</sup> To this commentator, a psychosocial model of rampage violence is not even a model or a theory, just a “superstition.”

There may be aspects of current approaches to violence research

that have inhibited progress in dealing with rampage violence. This lack of progress is exemplified by a resulting sense of helplessness, as suggested by the columnist's comments, along with the recurring debates that follow such events. Arguments about gun control, media censorship, mental health funding, and other policy answers to rampage violence that followed the 2011 Tucson tragedy are, by and large, no different from those that followed the Texas Tower shooting<sup>6</sup> and any number of rampage violence events in between. Rather than accept that progress against rampage violence is not possible, perhaps we should ask how well our current violence research tools are suited to addressing this problem.

## ADDRESSING RAMPAGE VIOLENCE EVENTS

We suggest that existing approaches to violence research do not fit well with efforts to reduce rampage violence. One example of a poor fit is the structured pace of scholarly research versus the need for quick, decisive responses to such public tragedies. Responses to rampage violence typically follow rapid cycles of public anguish, ad hoc studies, executive orders, and legislative attempts to close gaps in existing laws that may have allowed the specific event to occur, and then conclude with more prolonged, private healing. The policy response to the 2007 Virginia Tech massacre is considered the most comprehensive policy response so far to an act of rampage violence, and it was completed within a year.<sup>7</sup> Although there may be support for developing longer term solutions during these cycles, the reality is that this cycle does not allow time for the research such solutions require

and, once the cycle is complete, emphasis moves to closing the painful event, not to reexploring it.

A second limiting feature of violence research in facilitating effective responses to rampage violence is its disciplinary focus. Disciplinary focus brings depth and rigor to problem solving but can create confusion in the minds of policymakers and the public. For example, most studies of violent attacks on politicians and other public figures, such as Congresswoman Giffords, have come from the US law enforcement community and have sought predictors that can be useful to law enforcement officials. The consensus from these studies is that such attacks are not predictable but are preventable using appropriate personal risk management strategies.<sup>8</sup> An alternative conclusion, based on an examination by mental health researchers of attacks on European politicians between 1990 and 2004, is that these attacks are usually perpetrated by psychotic individuals who give repeated warnings and that earlier mental health interventions would prevent many attacks.<sup>9</sup> Unless American attackers are markedly different from European attackers, these conclusions are probably supported by similar data but suggest opposite policy approaches. The reason for this discrepancy lies not with the data but with the disciplinary prism through which their results are viewed.

Another limitation is an apparent lack of research on whether policy changes intended to reduce violence have actually had their intended effects. Perhaps the lack of studies exploring the effects of policies that might prevent rampage violence can be attributed to the relative rareness of such events. However, there are numerous

examples of long-standing violence policy initiatives that have never been evaluated and, thus, cannot contribute experience to future policy development. Consider efforts directed at children to reduce firearm violence. A 2004 National Research Council study concluded,

There is almost no empirical evidence that the more than 80 prevention programs focused on gun-related violence have had any effect on children's behavior, knowledge, attitudes, or beliefs about firearms.<sup>10</sup>

In another area—violence against women—after 40 years of study, advocacy, and policy change, a 2010 US Department of Justice and White House roundtable found “a dearth of relevant research on sexual violence, and the need for better research and data collection to inform the work of practitioners and policymakers.”<sup>11</sup>

## A TRANSDISCIPLINARY APPROACH

One remedy to some of these limitations, a remedy that might lead to a more robust understanding of rampage violence and more productive policy debates, is to encourage a transdisciplinary research approach. In her study of rampage school shootings, Newman, a sociologist, concluded that by themselves existing sociological and mental health explanations—such as the presence of mental illness, bullying, media violence, poor social support, and access to firearms—were inadequate explanations for the actions of the perpetrators she studied. She offered an alternative model of five necessary but not sufficient factors for school shootings that included individual marginalization, psychosocial factors magnifying the marginalization, exposure to

cultural scripts (e.g., mass media), failure of school surveillance systems, and access to guns.<sup>1</sup> She stated that removal of any one of these factors would have prevented the shootings she studied. Newman and her co-workers tested their model in three school shooting data sets containing 12 to 37 US cases collected from 1974 to 2002. All the shooters in these cases were males, but some of the shootings were directed at something other than institutions (e.g., targets of sexual jealousy). Where the shootings did appear to be institutionally directed, they found good evidence supporting their five-factor theory.

Newman's analysis is helpful but falls short of defining a robust research and policy approach to rampage violence. It is helpful because it classifies rampage violence as an institutionally directed assault by a particular population segment that is driven by a confluence of defined psychosocial factors. This definition may help classify certain types of mass murders and spree killings as “rampage violence” in a way that allows more focused study.

Newman's explanatory model is also useful because it is not one of individual causality, but of a systems failure that allows individual failures to lead to a catastrophic event. Systems theory models serve us well in the study of other rare catastrophic events, such as airplane accidents. A systems theory approach, such as she suggests, supports disciplinary research in one area, for instance bullying, while providing a framework to use this research to better understand the multidimensional social problem of rampage violence.

Finally, Newman's analysis suggests potential policy approaches to rampage violence that can be implemented and studied. Several

of her recommendations could readily be adopted on a large scale.

Newman's analysis falls short because, by design, it is a sociological study of school shootings. It is not a study of rampage violence in general, and it does not really consider nonsociological research tools. We believe, as she does, that school shootings are not the only manifestation of rampage violence. We would like to see more and broader research directed to the causes and prevention of rampage violence. This research needs to be connected to policies to reduce the risk of rampage violence, and these policies must be studied for effectiveness. This is a serious transdisciplinary agenda. How might the violence research community contribute?

The public health disciplines are already engaged in violence research. To better address rampage violence, they should consider unanswered epidemiologic questions. If, as suggested, there are certain defining features of rampage violence, how common is this type of event worldwide, and are there internationally consistent associations? Is rampage violence increasing? How useful are public data sets, such as the Centers for Disease Control and Prevention's National Violent Death Reporting System<sup>12</sup> (which contains anonymous data from 18 states), in studying rampage violence and the effects of policy changes? Does there need to be a new type of information system to better inform rampage violence prevention and policy efforts?

The mental health disciplines have much to offer. There is evidence that many rampage violence perpetrators are mentally ill, often with schizophrenia. There is also good evidence that schizophrenia is associated with an increased risk of committing a violent crime.<sup>13</sup> However, the simple

conclusion that the solution lies in dealing with schizophrenia is complicated by evidence that substance abuse is a strong covariate. Without substance abuse, schizophrenics are only slightly more violent than is the general population.<sup>14</sup> Furthermore, neurobiological studies show that tendencies to violent behavior are associated with brain changes in the same regions that are affected by drugs of abuse.<sup>15</sup> What is the relationship between drug abuse, schizophrenia, and rampage violence? Should preventive measures focus more on drug abuse than mental illness? Can neurobiological data be used to predict violent behavior? Are there unique neurobiological or other definable mental health characteristics of rampage violence perpetrators? How can researchers ethically learn about the causes of rampage violence by studying the perpetrators?

The social and criminal sciences play key roles in violence research. As suggested, the relatively rare and systematically understudied events of rampage violence almost certainly have roots in the misalignment of more common social phenomena. Are there generalizable features to these phenomena and their interactions? Does knowledge about the presence of potentially undesirable phenomena improve risk assessment? What about "near misses?" Is it possible to find potential cases of rampage violence that were averted and to learn from the experience? Importantly, what is the evidence that specific social policies either reduce or enhance the risk of rampage violence?

### A RESEARCH STRATEGY

A rampage violence research agenda needs to focus on an event

that is episodic and (so far) unpredictable. As a research topic, rampage violence differs considerably from most subjects of violence research, such as family, school, and gang violence, which are much more common. An organization that seeks to study rampage violence probably needs to resemble the National Transportation Safety Board, which uses a flexible multidisciplinary team to investigate air transportation accidents and near misses wherever they occur. Such an organization can facilitate scholarly research by collecting data on multiple incidents. The National Transportation Safety Board model has other positive features, including a national focus, a commitment to improving public safety, and an emphasis on organizational responses that can be emulated. Although the National Transportation Safety Board is a US federal government agency, a rampage violence research organization does not need to be a governmental organization. Because it seeks to understand the causes of rampage violence, a rampage violence research organization should, however, almost certainly not be based on a predetermined solution, such as media censorship or gun control.

There also needs to be the development and application of analytic tools for the study of rampage violence. In the setting of relatively rare events the sociological research tools are typically qualitative investigations and, for common events, correlation–regression analyses. There need to be more robust quantitative studies of rampage violence. For example, a tool that is used to help develop a causal understanding of rare medical events is the case control study. This type of analytic tool should probably

be more widely applied to studies of rampage violence.

### CONCLUSIONS

Rampage violence seems to lead to repeated cycles of anguish, investigation, recrimination, and heated debate, with little real progress in prevention. It is time to acknowledge the futility of this approach. Either rampage violence is unpredictable and unsolvable or our current approaches to predicting and preventing it are not working. If we accept the possibility of progress, then we should also accept that our current violence research methods may need adjustment. Specifically, we should consider a transdisciplinary approach to this multifactorial problem, a close examination of the effects of policy changes on rampage violence, and new organizational and analytic tools for dealing with these catastrophic events. ■

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The authors contributed equally to the development and preparation of the article.

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