Mass Shootings: The Role of the Media in Promoting Generalized Imitation

Mass shootings are a particular problem in the United States, with one mass shooting occurring approximately every 12.5 days.

Recently a "contagion" effect has been suggested wherein the occurrence of one mass shooting increases the likelihood of another mass shooting occurring in the near future. Although contagion is a convenient metaphor used to describe the temporal spread of a behavior, it does not explain how the behavior spreads. Generalized imitation is proposed as a better model to explain how one person's behavior can influence another person to engage in similar behavior.

Here we provide an overview of generalized imitation and discuss how the way in which the media report a mass shooting can increase the likelihood of another shooting event. Also, we propose media reporting guidelines to minimize imitation and further decrease the likelihood of a mass shooting. (*Am J Public Health*. 2017;107: 368–370. doi:10.2105/AJPH. 2016.303611)

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M ass shootings occur worldwide but are a particular problem in the United States. Despite being home to only 5% of the world's population, roughly 31% of the world's mass shootings have occurred in the United States. As of 2015, a mass shooting resulting in the death of four or more people occurred approximately every 12.5 days. In addition to public massacres such as the shooting in an Orlando, Florida, nightclub in 2016, these figures include mass shootings related to gang activity or family slayings. Although there are many variables responsible for a mass shooting, and each instance is immediately precipitated by different events, the commonality is that a significant number of individuals are killed during the event.

Recently a contagion effect, similar to a "copycat" effect, has been suggested in mass shootings. This effect suggests that behaviors can be "contagious" and spread across a population. In the example of mass shootings, a contagion effect would be said to exist if a single mass shooting incident increased the likelihood of other instances of mass shootings in the near future. Contagion has been documented across a variety of other behaviors, including airplane hijackings,2 smoking cessation,3 and binge eating,4 and has been well researched in relation to suicide.^{5,6} There is now evidence that when a mass shooting occurs, there is a temporary increase in

the probability of another event within the next 13 days on average.⁷

Although understanding contagion allows for some degree of prediction that when one event occurs, a similar event is more likely to occur in the near future, it affords only prediction regarding temporal contiguity. The theory does not, for example, provide information on what factors might influence another person to commit a mass shooting or how the occurrence of a mass shooting can set the occasion for someone to commit a similar act.

CONTAGION VS GENERALIZED IMITATION

When applied to behavior, "contagion" is a metaphor borrowed from epidemiology to explain how behaviors can spread across a group of people. Behaviors, however, are not diseases that can spread on contact. Essentially, contagion models an outcome—when someone engages in a behavior, there is a probability that someone else may do the same—but it does not describe the behavioral mechanism for the spread of the

behavior. A better model is generalized imitation, which is well studied in the psychological literature⁹ and can help explain the increased likelihood of people engaging in behaviors similar to those they have been made aware of or actually observed.

The difference between imitation and contagion is not merely one of semantics. Generalized imitation is the learned ability to perform behaviors that are similar to behaviors observed or described, even when performance is delayed. It is a skill that is acquired at an early age and gradually strengthened through many life experiences. Generalized imitation does not suggest that a person will always perform an exact copy of the model's behavior; rather, it suggests that the person will perform a behavior with similar characteristics. For example, people imitating a boxer may not throw the same punches in the same sequence, but they will engage in similar boxing-like behaviors at a later point in the near future. If the likelihood of engaging in boxing-like behaviors were increased by observing someone else boxing, generalized imitation would be an important contributing factor.

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Several variables affect generalized imitation. In general, people are more likely to imitate a model who is similar to themselves, particularly in terms of age and gender; who is of an elevated social status; who is seen being rewarded; and who is seen as competent.¹⁰

THE ROLE OF MEDIA IN IMITATION

When mass shooters imitate other mass shooters, they are generally not imitating personally observed events (although this is possible in gang-related instances). In each case in which the event is unobserved, all information that could serve as a model for imitative behavior was provided via various media sources (legacy media, social media, new media), and research has demonstrated that media can influence imitation.¹¹ Not only do people often imitate behaviors that are portrayed in the media, the "reality" of the portrayal does not seem to have a significant influence. Imitation can occur regardless of whether the model is presented live, whether it is presented via film,¹¹ or even when the model's behavior is merely described. 12

Importantly, the way that the media report an event can play a role in increasing the probability of imitation. When a mass shooting event occurs, there is generally extensive media coverage. This coverage often repeatedly presents the shooter's image, manifesto, and life story and the details of the event, ¹³ and doing so can directly influence imitation.

Social status is conferred when the mass shooter obtains a significant level of notoriety from news reports. Images displaying

shooters aiming guns at the camera project an air of danger and toughness. 14 Similarities between the shooter and others are brought to the surface through detailed accounts of the life of the shooter, with which others may identify. Fulfilled manifestos and repeated reports of body counts heap rewards on the violent act and display competence. Detailed play-by-play accounts of the event provide feedback on the performance of the shooter. All of these instances serve to create a model with sufficient detail to promote imitated mass shootings for some individuals.

DECREASING MASS SHOOTINGS: MEDIA AND IMITATION

If the manner with which the media (legacy, new, social) report a mass shooting event plays a role in promoting further mass shootings, changing these reporting methods could decrease imitation. This tactic has been effective in decreasing imitated suicide, 15 and the World Health Organization, citing 50 years of research on imitation, has posted media guidelines on reporting suicides to prevent imitational suicides. 16 The guidelines include suggestions such as not sensationalizing suicide (e.g., suggesting an "epidemic"), avoiding prominent headlines, not suggesting that suicide is caused by any single factor such as depression, not repeating the story too frequently, not providing step-bystep descriptions of methods, limiting use of photographs and videos, and being particularly careful with celebrity suicides.

Similar suggestions have been provided for reporting mass shootings. For instance, the

Advanced Law Enforcement Rapid Response Training team, in collaboration with the Federal Bureau of Investigation, has developed the "Don't Name Them" campaign. The campaign aims to curb media-induced imitational mass shootings and suggests minimizing naming and describing the individuals involved in mass shootings, limiting sensationalism, and refusing to broadcast shooter statements or videos. James Comey, director of the Federal Bureau of Investigation, followed a similar strategy in describing the 2016 shooting in Orlando:

You will notice that I am not using the killer's name and I will try not to do that. Part of what motivates sick people to do this kind of thing is some twisted notion of fame or glory, and I don't want to be part of that for the sake of the victims and their families, and so that other twisted minds don't think that this is a path to fame and recognition.¹⁷

Adopting the recommendations of the World Health Organization and the Advanced Law Enforcement Rapid Response Training team could help decrease the number of mass shootings in the United States.

There are additional strategies, suggested by research on generalized imitation, that media outlets might adopt to further minimize imitational mass shootings. One strategy could be to present the shooter's actions in a negative light. Discussions of the actions of the shooter (e.g., preparation, planning, shooting) could portray these actions as shameful or cowardly. Associating observed behavior with punishment has been shown to decrease the likelihood of imitation. 18 Portraying the shooter's behavior as shameful could decrease any perceived rewarding of the behavior, as emotional

responses such as shame are generally not associated with positive outcomes.

A second strategy could be to avoid in-depth descriptions of the shooter's rationale for engaging in the behavior. In general, people are more likely to imitate the behaviors of other people who they view as similar to themselves. When the media repeatedly describes a purported motive for the shooting they may inadvertently be pointing out similarities between the shooter and others that may have otherwise gone unnoticed. For example, stating that a shooter took revenge after years of bullying may portray a mass shooting as one possible response option for individuals experiencing bullying and with similar backgrounds as the shooter. Understanding the motive for a mass shooting is undoubtedly important, but in-depth descriptions of rationales may serve not only to inform but also to increase the likelihood of imitation.

A third strategy could be to reduce the overall duration of news coverage after a mass shooting. In the case of suicide, a dose-response relationship has been suggested wherein increased media coverage of a suicide event results in an increase in imitational suicides. 19 The same might be true for imitational mass shootings. There is a clamor for news after a mass shooting, and media coverage may continue for weeks. To the extent that media attention is perceived as rewarding the actions of the shooter through notoriety, thereby also increasing the social status of the shooter, decreasing overall media coverage may minimize the likelihood of imitation following a mass shooting event.

A fourth strategy could be to limit the use of live press events

immediately following a mass shooting. Although there is a heightened desire for information in the immediate aftermath of a mass shooting, this information does not necessarily need to be offered in a live event, which might increase the overall level of "excitement" surrounding the event. Instead, information could be released via written updates. Not only would this minimize perceived reward, it might actually serve to decrease overall interest in the event, which might further curb imitation.

Similarly, it is important that new outlets present only the facts of a mass shooting rather than attempting to produce entertaining or dramatic digital re-creations of the event. There should be a clear attempt on the part of the media to reduce the frenetic energy or emotion of a "breaking news story." Instead, the bare facts of the event should be conveyed in a straightforward or even dull manner to minimize interest in the event. Sensationalism should be avoided.

Finally, media reports should avoid providing detailed accounts of the actions of a mass shooter before, during, or after the event. Describing the shooter's actions in extensive detail, or through graphical presentations, may provide additional information regarding the behaviors that might further prompt imitation. Instead, only the details necessary to describe the event should be provided. The less the behavior is described, the less likely it is to be imitated.

CONCLUSIONS

A mass shooting is a complex and destructive act that occurs as a result of many factors. One

factor that is relevant to the spread of mass shootings and other "contagious" behaviors is generalized imitation. In instances of mass shootings, the media appear largely responsible for providing the model to imitate. Although there are a variety of strategies that could function in tandem to alter the likelihood of a mass shooting, changing the way the media report mass shootings is one important step in preventing and reducing imitation of these acts. Furthermore, it is likely that media-prompted imitation extends beyond mass shootings. A media effect has been shown with suicide, is implied in mass shootings, and may play a role in other extreme events such as home-grown terrorism and racially motivated crimes.

The responsibility for these acts does not reside with the media, but the media are an important vector for the spread of such behaviors. Changing the way in which the media report a mass shooting could be difficult given that sensationalizing a tragic event brings in both viewers and revenue, which is a powerful incentive. In addition, the continual creation and expansion of social and new media platforms may make change more difficult because, in these instances, individuals rather than larger corporate entities develop and disseminate media. Given the numerous media outlets that exist and the various motivations behind the posting of content, it is unlikely that the reforms suggested here could be effectively mandated.

However, public pressure could be exerted on the various media outlets and individual contributors to change their reporting tactics. In the case of new and social media, this same pressure could influence the various platforms to provide

guidelines regarding uploaded content related to a mass shooting. The first step toward building this public pressure is to make the general public aware of the link between the media and generalized imitation, as well as the role the media play in unknowingly perpetuating acts of violence. AIPH

CONTRIBUTORS

J. N. Meindl took the lead in conceptualizing the topic and writing the text. J. W. Ivy contributed to developing the media suggestions and analysis. Both of the authors contributed to improving successive iterations of the text.

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