

Recall of Fatalities in USA Mass Shooting Events

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Introduction

There is limited research regarding the recall of traumatic mass-shooting events in the U.S., yet these events are growing in frequency in the country¹. The current study examined the number of fatalities USD students recalled in several recent mass-shooting events. This study also attempted to compare casualties recalled in comparison to demographic/opinion variables, such as political orientation and NRA support, to discover if these influence correct recollection. Due to previous research referencing how individual state of mind shapes flashbulb memories,² we predicted that favorable gun rights opinions would depress the memory of the number of fatalities of mass-shooting events.

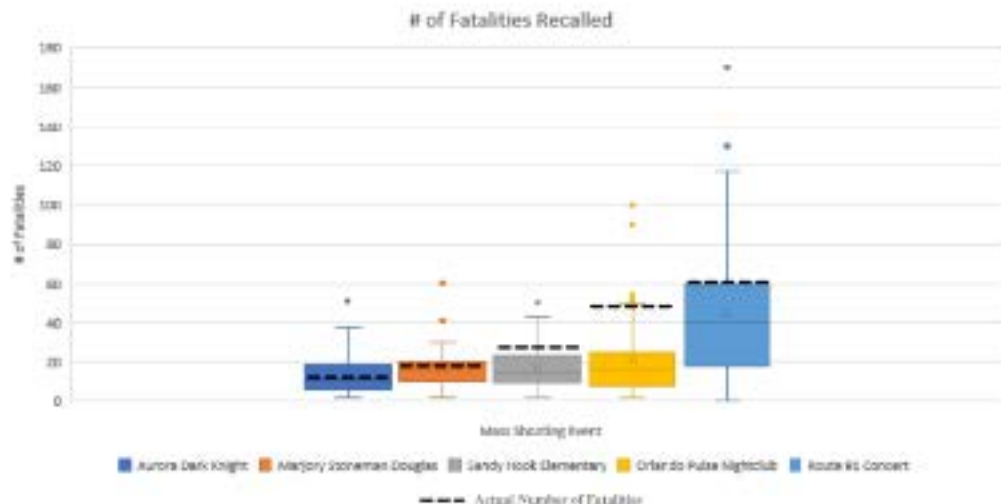
Methods

The participants were 128 undergraduate students at USD. Data collection was conducted in 2019. Fifty-five of the participants identified as Democrat (43%) and thirty-nine identified as Republican (30.5%) and sixteen identified as Other (12.5%).

The participants were asked the same survey questions for the following mass shootings in random order: Aurora Dark Knight (2012), Sandy Hook Elementary (2012), Orlando Pulse Nightclub (2016), Route 91 Concert (2017), and Marjory Stoneman Douglas (2018). The first question required the participants to describe everything they had remembered about the target shooting event. They were then asked a series of specific questions of which the number of fatalities was always the first. Then participants were asked a series of yes or no questions about whether they were religious, if someone in their household owned a firearm, and supported the NRA (the National Rifle Association) to protect gun owners' rights.

References

- ¹Waller, L. (2018). *Mass Shootings in the United States: An Empirical Study of the Trends from 1982-2017*. George Mason University.
- ²Greening, D., & Driscoll, A. M. (2010). Political Ideology, Sex, and Gender: A Test of the Flashbulb Memory Hypothesis. *Journal of Experimental Social Psychology*, 46(1), 127-134. <https://doi.org/10.1016/j.jesp.2009.11.011>



Results

A series of one-sample T-Tests were conducted for each mass-shooting event to determine whether the participants' estimates were statistically different from the actual number of casualties. After excluding outliers, participant's estimates were not significantly different in Sandy Hook Elementary with 26 deaths ($M=16.68$, $SD=9.70$), Aurora Dark Knight ($M=12.08$, $SD=8.13$) with 12 deaths and Marjory Stoneman Douglas ($M=15.97$, $SD=8.02$) with 17 deaths. The participants underestimated significantly the number of casualties for Route 91 Concert ($M=44.8$, $SD=34.44$, $p=.000$) with 60 deaths and Orlando Pulse Nightclub shootings ($M=19.17$, $SD=13.55$, $p=.000$) with 49 deaths. Additionally, we conducted a series of independent samples t-test on the demographic variables of support for NRA activities, gun ownership, religious beliefs, and political affiliation. However, there were no statistical relationships that any of the variables affected their recall of fatalities.

Discussion

- Participants had greater recall accuracy of the mass shooting events with lower casualties compared to those with a greater number of casualties. We postulate that those exposed on a regular basis to mass-shooting events which are of note estimate at least a double-digit estimate count of fatalities but attempt to "depress" the numbers to deal psychologically with these traumatic events.
- While the sample size was small and only included five mass-shooting events, it was not apparent that recollection of fatalities was based on time elapsed. For example, the Aurora Dark Knight mass-shooting, the earliest of the events, was recalled correctly while the Route 91 concert which happened more than five years later, was underestimated.
- Religious beliefs, support for NRA activities, gun ownership, and political affiliation did not affect participants' recall of fatalities in mass shooting events.