

Exploring the Potential “Parkland Effect” on Students’ Sense of School Safety

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School Shootings

On February 14, 2018, the massacre at Marjory Stoneman Douglas High School in Parkland, Florida resulted in seventeen deaths, including fourteen students and three staff members. The event re-ignited the national discourse associated with prior school shootings. Although school mass shootings are statistically rare, when they occur they generally receive substantial media coverage, and increasingly, intense social media exposure. When students are indirectly exposed to such violent events, what effect does it have on their feelings of safety and on their perceptions of risk of violent victimization at school?

The UMSL Comprehensive School Safety Initiative (CSSI) provided an opportunity to address this issue due to the timing of student surveys. During January through April of 2017, the research team surveyed 3,640 students enrolled in the 7th and 8th grades in 12 middle schools in St. Louis County, Missouri. These same students were surveyed again in 2018. Approximately one-third of the Wave 2 sample completed the survey prior to the shooting and the other two-thirds completed the survey following the shooting in Parkland. Thus, we are able to examine the extent to which a deadly shooting might affect the attitudes and behaviors of students 1,000 miles away.

Data and Methods

The UMSL CSSI project initially included 12 middle schools in six St. Louis County school districts. During the first wave in 2017, 3,640 7th and 8th grade students participated in the survey. The second wave of data collection occurred in January - April 2018, during which 3,165 students, now in 8th and 9th grade, were re-surveyed. After deleting cases (158) with missing data on relevant variables, the analytical sample includes data from 3,007 students —947 surveyed pre-Parkland and 2,060 post-Parkland.

Measures

- Perceptions of school disorder
- Perceived risk of victimization
- Fear of victimization
- Perceptions of school safety
- Gun reporting

Why expect the Parkland shooting to influence students in St. Louis County?

The Parkland shooting might influence student attitudes because indirect victimization can affect fear of violence, safety-related perceptions, and behavior. Intense media coverage of violent events can increase fear of crime, as well as perceived risk of victimization. With the ubiquity of social media and electronic devices among today’s students, the exposure to vicarious violence may have a strong impact on attitudes. Furthermore, when individuals feel an affinity with victims, they are more likely to experience increases in fear of victimization, perceived risk, or other effects. The students at Marjory Stoneman Douglas High School responded to the shooting by becoming active on social media and engaging with the media. They continuously shared information about their experiences with broad audiences and helped organize national protests such as the National School Walkout on March 14, 2018 and the March for Our Lives on March 24, 2018. These events involved students across the nation and potentially increased affinity between UMSL CSSI respondents and the victims, consequently allowing the shooting to play a larger role in their perceptions of school safety.

Some research indicates that certain individuals are more likely to be affected by indirect victimization than others. Specifically, those who feel safest in their environment are more likely to experience stronger reactions to media portrayals of violent crime (e.g., increases in fear, decreased feelings of safety) compared to those with more immediate experiences with violence (e.g., personal victimization, family member’s victimization). These differential effects are important to consider given the substantial differences in community and school characteristics in St. Louis County.

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Table 1. Change Scores Between Wave 2 and Wave 1

	Full Sample (n=3,007)	Pre-Shooting (n=947)	Post-Shooting (n=2,060)
Perceived school disorder (1-3)	-0.057	-0.102	-0.036*
Kids bringing guns (1-3)	-0.031	-0.091	-0.004*
Fear of school victimization (1-5)	-0.107	-0.117	-0.102
Attacked/threatened (1-5)	-0.143	-0.199	-0.117 †
Risk of school victimization (1-5)	-0.115	-0.114	-0.116
Attacked/threatened (1-5)	-0.094	-0.130	-0.078
Avoidance (0-1)	0.007	-0.005	0.013
Report gun at school (1-5)	-0.198	0.006	-0.292*
Can't concentrate b/c unsafe (1-5)	0.045	-0.012	0.071†

* mean value significantly different than the pre-shooting group at $p < .05$; † $p < .10$

Change Scores

We take advantage of the fact that the same students were surveyed in both years and calculated *change scores* to examine an effect...

- **Change scores:**
Wave 2 value – Wave 1 value
- **Represents the change in an individual's score on a measure from Wave 1 to Wave 2**
- **Positive (+): The score increased in Wave 2**
- **Negative(-): The score decreased in Wave 2**

Results

We examine changes in student perceptions from Wave 1 to Wave 2. The change scores reflect some meaningful findings. Students' perceptions of disorder generally decrease from Wave 1 to Wave 2; however, they decrease significantly *less* if the students' Wave 2 surveys were collected after they were exposed to Parkland. This suggests that students surveyed after the shooting perceive more safety threats than those surveyed prior to the shooting. This relationship is especially pronounced when examining the question of how much of a problem is "Kids bringing guns to school."

A similar pattern occurs for students' fear of being attacked at school. Fear generally decreases in the second wave but decreases less for those surveyed after Parkland. In addition, students surveyed post-Parkland reported they had more difficulty concentrating due to feeling unsafe in Wave 2 compared to Wave 1, while those surveyed before had less difficulty.

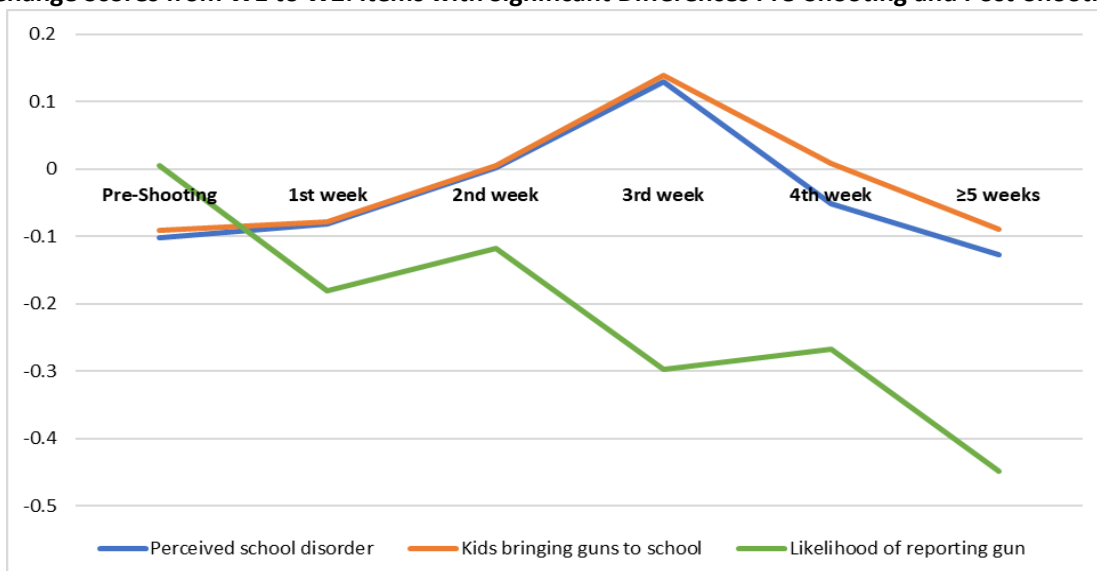
Lastly, the differences in change scores reflect an unexpected pattern concerning students' likelihood for reporting a gun on campus. Students indicated a decline in the likelihood they would report someone

bringing a gun to school if they were surveyed after the Parkland shooting, suggesting that exposure to Parkland decreases reporting likelihood even more. Interestingly, these results suggest the shooting does not influence students' perceptions of risk of victimization or avoidance behaviors. These overall results provide partial support for a "Parkland Effect."

Does the effect persist over time?

By plotting the change scores over time, we see some meaningful patterns (see Figure 1). As mentioned previously, students generally perceive less disorder in Wave 2 than Wave 1. This decrease is reduced in the first week after the shooting, then change scores indicate that students' perceived disorder and responses that "kids bringing guns to school" is a problem increase significantly in weeks two and three. Both measures indicate some evidence of a diminishing Parkland influence, with change scores falling below zero five weeks after the shooting. This suggests that the "Parkland effect" on perceptions of the environment is transient; that is, after peaking during week 3, there is a decaying effect such that there is virtually no effect for those surveyed more than four weeks after the shooting.

Figure 1. Change Scores from W1 to W2: Items with Significant Differences Pre-Shooting and Post-Shooting



North and South County Comparisons

Extant research on indirect victimization and media exposure to violence suggests that an event such as the Parkland Shooting may impact students differently based on their environment. Half of the schools included in the UMSL CSSI project are located in North County St. Louis, while the other half are located in South County. St. Louis County is considerably segregated by race and socioeconomic disadvantage, so that North County is majority black and includes areas with both higher concentrated disadvantage and higher rates of violence. Conversely, South County has a majority white population with lower levels of disadvantage. In addition to these demographic differences, students report varied experiences in their schools so that, on average, students in North County schools report higher levels of school disorder, fear of victimization, and perceived risk of victimization relative to students in South County schools. We take these differences in schools and neighborhoods into account to examine how the Parkland shooting's influence on student perceptions may vary by school location.

Figure 2 maps the change scores for the various outcomes, partitioned into South County and North County groups. This comparison illustrates a stark difference in the influence of Parkland. In the South County sample, change scores differ significantly pre- and post-Parkland for the majority of outcomes examined, including the three outcomes with demonstrated changes in the overall sample: perceptions of school disorder, kids bringing guns to school, and likelihood of reporting a gun. There are also significant changes in students' fear of victimization, perceptions of being attacked or threatened, and reports of not being able to concentrate due to feeling unsafe. Perceptions of risk increase in Wave 2 in the first week after Parkland, and then return to levels slightly lower than Wave 1 risks, before increasing again. Regarding the "Can't concentrate because unsafe" item, students report more agreement with this statement in the weeks following Parkland.

Interpretation of these patterns suggests that, in addition to recognizing greater disorder and being less likely to report guns at school following the shooting, South County students experience effects on fear and risk after being exposed to the Parkland shooting. Conversely, only two relationships remain significant in the North County sample; students' change scores reflect an increase in perceptions that kids bringing guns to school is a problem and decrease in likelihood of reporting a gun after Parkland. The apparent contrast in the Parkland influence suggests that students in majority white schools in areas with less disadvantage experience news about Parkland differently than their North County counterparts. These patterns are consistent with prior work suggesting that the media's emphasis on extreme incidents of violence likely impacts individuals who do not have more direct references for violent events.

Not only is there more concentrated disadvantage in North County, but the students in these schools report greater victimization, perceptions of disorder, and fear of crime on average than students in South County. North County students may react to the Parkland shooting differently, as they are more likely to draw on their immediate experiences and environment when they evaluate perceptions of safety, whereas South County students may not have acknowledged violence as a major threat until thinking about the Parkland shooting.

Conclusion

Our goal in this Fact Sheet was to assess the extent to which a highly publicized school shooting might affect students' perceptions of school safety. Unlike other mass shootings, victims of the Parkland shooting took to social media to express their horror, sadness, and frustration with the frequency of such events in the U.S. Students organized protests with the intent of raising awareness and concern about gun violence. These efforts resulted in substantial sustained media coverage of the shooting.

Based upon these analyses, a highly publicized shooting such as that in Parkland can have substantively important effects on students' perceptions of school safety; namely, exposure to the shooting is associated with increases in perceived school disorder and some measures of fear and risk of victimization, as well as decreases in the likelihood of reporting guns at school. Two caveats, however, should be provided. First, there appears to be a decaying effect over time; the Parkland Effect was largely absent by four weeks post-shooting. Even with the heightened social and mass media coverage after the shooting, the effect on student attitudes appears transient. Second, school and student socio-demographic characteristics need to be considered. In this study, the differences in responses for students attending predominantly black and more disadvantaged schools and those enrolled in mostly white and less disadvantaged schools are striking. There was virtually no effect in the former but pronounced effects in the latter.

Figure 2. Change Scores from W1 to W2 by County

