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Management of Public Health Disasters
Case Study: Robb Elementary shooting

Introduction:

Gun violence in the United States (U.S.) is a large and growing public health problem as rates of gun violence continue to rise. Specifically, school shootings have been at an all-time high. In 2022 to date, as of Oct 1, there have been at least 95 incidents of gunfire in schools leading to 40 deaths and 76 injuries.¹ The prevalence of school shootings in the U.S. is quite significant, with roughly a 57-fold increase in the number of school shootings as all other industrialized nations *combined*.¹ In this case study, the focus is on the school shooting in Uvalde, Texas, which took place on May 24th, 2022.

Facts of the Case:

Over the course of an hour, a gunman killed 19 students and two teachers at Robb Elementary school, located in Southwest Texas. Prior to his eighteenth birthday, the gunman showed an interest in obtaining a firearm and asked two people to purchase a gun for him. He announced his plans obliquely on social media, stating that he would do something in May that would “make him famous and put him all over the news.”² The gunman could legally purchase a firearm on May 16th, 2022. He bought a Smith & Wesson AR-15 style rifle and 375 rounds of ammunition, spending a total of \$4,896 on weapons, ammunition, and accessories.² On May 24th, the gunman began his shooting spree, beginning by shooting his grandmother, who survived the attack.

After stealing his grandmother's vehicle, the shooter arrived at the school at 11:28 A.M. Making his way to the west side of the school, he was seen by a teacher who then called 911 and warned students to retreat to their classrooms. A few minutes later, at 11:31 A.M., a faculty coach communicated using a school radio that there was an active shooter as the gunman walked towards the building, firing multiple rounds between vehicles in the school parking lot and through the windows of classrooms. The gunman was then able to enter the school as none of the exterior doors were locked, in violation of school policy.² The gunman entered classroom 111, choosing a classroom where the door did not properly lock (also in violation of school policy); the classroom's teacher, Arnulfo Reyes, had reported the need for repairing the door in the past. The gunman fired a minimum of 100 rounds in over two and a half minutes inside classrooms 111 and 112, which were connected.² Five minutes after the shooting began, law enforcement entered the building. Nonetheless, the gunman continued firing, and after 11 rounds, he stopped. This caused law enforcement to retreat and try to barricade the gunman inside the classroom rather than treat him like an active shooter. Due to the lack of leadership, inadequate communication, chaotic clustering of law enforcement, and lack of a clear chain of command (*who was in charge* of the response?) the gunman was killed by one of the responding officers at 12:50 P.m. This was about 1.5 hours after the gunman had stepped foot on the school's campus, and after at least six 911 calls that students and teachers had placed in classrooms 111 and 112, pleading for the officers they heard outside to come and save them.

Epidemiological aspects of the event:

There is a lack of a standard definition of a mass shooting. The FBI considers a mass shooting to have happened when four or more people are injured or dead, whereas the Stanford database defines mass shootings as incidents where three or more people are killed or injured.

Some definitions consider a mass shooting only to occur in public rather than in private spaces.³ It can be quite complex to study mass shootings, as the exact number of mass shootings in the United States ranges depending on how one defines a mass shooting. Nonetheless, in 2022 alone, there have been 133 mass shootings, as the United States has many more firearms per capita compared to other countries: about 120 guns per 100 individuals.³

Due to mass shootings being considered a rare event (they account for less than 1% of all firearm injuries in the U.S.), research on the topic was blocked for over two decades by congressional leaders who faced pressure from the NRA.⁵ Only since 2018 has extensive research been undertaken into the US phenomenon of mass shootings. We do know however, 98% of all mass shootings are carried out by males, and the majority are non-Hispanic white (61%), and under the age of 45 (82%).³ Motivators for mass shooters vary, although the most common motivation seemed to be domestic violence; however, since the early 2000s, the infamy and media attention that has accompanied mass shooters has been a significant motivator for other mass shooters that only continues to increase.³ School shootings tend to occur after school holidays or breaks and disproportionately occur in the morning.³ Similarly to the Robb elementary shooter, 60% of mass shooters plan their terror attack for more than a month, and 44-50% of mass shooters announce or post their plans on social media platforms.³

Elementary schools are more prone to experience mass shootings: 59 mass shootings occurred between 2020-21 compared to high schools (57 incidents).⁴ The most common location happened to be the parking lot (51 incidents)⁴ which is where the Uvalde shooter also began shooting. In the years 2020-21, a total of 93 school shootings with casualties took place, as studies suggest that the number could have been higher had it not been for the Covid-19 pandemic.¹ Nonetheless, in the year 2020-21, 118 casualties (46 deaths and 72 injuries) were due to school shootings.⁴ To date, there have been 33 school shootings that resulted in death or injury, and the Robb Elementary School shooting happened to be the sixth, with 21 people killed and six injured. Data suggests intentional violence due to firearms is only rising as firearm-related deaths, and crude death rates increased from 2017 to 2020 in all age categories.¹ Black children between the ages of 12-18 were most at risk of being killed by a firearm (33.37 per 100,000), followed by American Indian and Alaska Native children (18.87 per 100,000).¹

Management of the event:

The tragedy of the Robb Elementary shooting forced the U.S Congress to act, passing landmark legislation that was to curb gun violence, making it harder for individuals to acquire firearms.¹ Nonetheless, even with legislation and funding for research on gun-related deaths and injuries for the first time in 25 years,³ more needs to be done to address the issue of gun violence, specifically mass shootings; perhaps framing this as a public health issue that requires immediate attention could be the first step.

Communications of the event:

The communication from law enforcement of the Uvalde school shooting was inconsistent with reality. Although law enforcement initially received praise for their actions from fellow officers and individuals on the scene of the mass shootings,² this praise would soon turn into anger, resentment, and fear as the public and parents of the victims came to learn that due to miscommunications regarding authority, urgency, and adequate actions, law enforcement officers waited outside an unlocked classroom for approximately 45 minutes as the gunman took the lives of innocent children.

Conclusion:

The Robb elementary school shooting was another example of why the issue of "firearms within the public's hands" should be framed as a public health issue rather than a political one. Along with passed policies and legislation reflecting the public's need for safety, reassurance, and psychological well-being.

References:

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