

## U2 Annotated Bibliography

What are the effects on the human psyche for people who were eyewitnesses in a shooting? This question has been looming over me since December of last year. I was on the A train going to Broadway Junction around 3:10 PM when I saw two men arguing on the train. At first I didn't think much of it because it didn't involve me and I was already used to situations like this that get resolved with the other person getting off the next stop. The shooter approached the other man who was right across from me. From what started as fists being thrown led to a gunshot on a moving train. As the days went by it haunted me knowing that my life could've been ended if the shooter missed. I didn't notice many changes at first but over time I noticed myself becoming more anxious on the train knowing that at any point something can happen and as the train is moving no one can do anything but panic and move to the next cart. I wondered if I wasn't a victim in this shooting and it had some effect on me. I wondered how it may feel for others. Many people have different experiences so I don't expect my results to be the same, however I do expect them to be similar in that it has some negative effects. People who witness shootings are likely to have effects on the person's mental health.

Public Health, "Mass Gun Violence Is Affecting My Mental Health" Jan 21 2019,  
<https://www.publichealth.columbia.edu>. In this article the author discusses gun violence and its

effect on Americans as a whole. He brings up an anecdotal experience from his youth. When he was younger he and his partner were inside of a store in a Brooklyn neighborhood when someone walked into the store. The figure approached the man and asked if he was alone and in a frantic panic he left the store. He also stated around this time many school shootings already happened. One of which is the Columbia High School in Littleton Colorado when thirteen people were shot dead and 21 were injured. The author claims many people live in fear of the next mass shooting and this takes a detrimental toll on the mental health of many Americans today. The author also notes secondary trauma of mass shootings through media such as television etc. They build upon this claim by saying there is evidence to support that individuals develop similar symptoms such as post traumatic stress disorder without having witnessed first hand trauma. He continues on in the rest of the article by claiming gun violence does indeed have negative effects on a person who witnessed it such as changes to epigenetic changes, mood changes, depression, anxiety and other persistent illnesses. I agree with this article because being that close to a weapon so dangerous designed to kill can strike fear in the hearts of many. H.P Lovecraft once stated the oldest and strongest emotion of mankind is fear. Fear is a survival instinct which is what kept the human race alive for many years so it's no surprise when someone is so close to a shooting the first reaction is get away as fast as possible. Even when the person gets away there's no doubt that experience will stick with them and will hold onto that fear in case another incident like that occurs. "But what the barrage of mass gun violence has done to our sense of security is detrimental—not only to those who have come in direct contact with it, but to those like me who have internalized the secondary trauma of mass shootings experienced through television and

social media.” “There is strong scientific evidence that chronic stress causes epigenetic changes, which have lasting effects on our health and behavior by altering the way our genes function. Chronic stress acts differently on the body than acute trauma: it accumulates over time and silently alters our DNA. Long-term exposure to stress has been linked with the development of mood disorders, depression, anxiety, and other persistent illnesses.”

Denise-Marie Ordwaym, “How School Shootings Hurt Student Achievement And Enrollment”, December 2 2021, <https://journalistsresource.org>. Denise wrote about how school shootings affect enrollment in schools across the United States. She offers studies that offer insights into how student performance and enrollment can fall following a shooting on campus. She also takes into note the aftermath and what schools do after this tragedy occurs. She claims schools spend money on building repairs and security upgrades as well as student mental health services such as guidance counselors. In addition she says student enrollment drops since higher income families leave the area which can intensify socioeconomic segregation. Many students exposed to these shootings are more likely to be chronically absent than kids at similar schools with no shootings. I agree with the points Denise made here because school shootings affect the community as a whole, not just the students who were unfortunately killed/ injured. It's a teacher's job to protect the students and keep them calm. After all a school is a place of learning and where young minds come to be molded into future members of society. When this peace is disturbed the school has to respond. Expending resources to maintain the mental health of the student body in the forms of security or guidance counselors are expensive as a public school is a non profit organization. This money could have been used in other methods such as buying new

textbooks, upgrading computers or buying materials that can help benefit the learning experience. However due to this unforeseen tragedy this money now has to be redirected for the safety of the students. I also agree with her points made on students being absent due to a shooting. The parents overall concern is the child's safety and wellbeing and if that is compromised the parents rather the child miss a couple days which unfortunately has the child be left behind and chances to repeat the grade. "School shootings are associated with increased spending of \$248 per pupil, on average. Schools spend this money primarily on capital projects such as building repairs and security upgrades and on student support services such as mental health and psychological services." "Student enrollment at local public and private schools drops after a school shooting as higher-income families leave the area. The researchers note that the resulting shift in student demographics could exacerbate existing disparities across schools and intensify socioeconomic segregation." "Children who attend public schools where a shooting occurred are, on average, 1.8 percentage points more likely to be chronically absent than kids at similar schools that have had no shootings. Students exposed to school shootings are 1.3 percentage points more likely to repeat a grade, on average."

Dave Mosher, "Here's What Can Happen To Your Brain And Body When You Shoot A Gun" Oct 10 2017, <https://www.businessinsider.com/>. In this article Dave goes into detail what happens when someone shoots a gun and the effects it has on the brain and body. The brain releases neurochemicals such as adrenaline, cortisol, serotonin, dopamine, and norepinephrine. The aftermath of the bullet leaving the chamber can leave the shooter feeling many emotions such as intense fear, anxiety, or aggression after shooting. Dave also notes for people practicing

to use a firearm in order to pull the trigger you realize you're going to use this weapon to aid you. Despite these targets being paper people have recalled seeing the paper as an enemy pulling the trigger is an act of aggression. There is a baggage that comes with shooting a gun which the training is designed to bypass however the sad reality is that never truly goes away. It has also been recorded that blood pressure, heart rate and breathing go up. This is likely to be our flight or fight response. A survival tactic used when someone feels their life in danger. As a result, the heart begins to race, blood vessels constrict, and blood pressure skyrockets, in turn rapidly delivering oxygen and sugar to muscles. Other bodily functions that aren't important at the moment are put on hold in response to this threat. For example the digestive system pauses temporarily as isn't required at the moment to keep you alive. I agree with these statements because when you're holding a weapon that has been designed to take a life you can feel multiple feelings at once. You can feel scared you possess such power in your hands, you can feel elated as you have the power to take a life if you so please. The human body wasn't designed for such experiences which is why people will never shake off those emotions because it's not something that comes natural to us and generally when someone sees a gun or holding one no one cannot deny the tragedies caused behind this weapon. "The brain rapidly releases cortisol, adrenaline (aka epinephrine), and other hormones like serotonin, dopamine, and norepinephrine. This can lead novice shooters to feel intense fear, anxiety, or aggression after shooting." "In order to pull that trigger, you're standing your ground, and you're going to use this weapon to help you. There is that 'fight' part of it," Fleming said. "I know it's just a paper target, but some people are seeing that as the enemy. Pulling the trigger is an act of aggression." "As a result, the heart begins to

race, blood vessels constrict, and blood pressure skyrockets, in turn rapidly delivering oxygen and sugar to muscles.”

During this research I found many results ranging from second trauma to gun violence, to school shootings affecting attendance and the community as a whole, to what it's like firing a gun and what goes through a shooter's mind. But all these draw back to one thing which is the mental health going through a physical change. Students not attending school due to fear of another tragedy happening which results in guidance counselors needed to help troubled students. Second hand trauma from witnessing a tragedy causing post traumatic stress disorder, anxiety, depression etc. Shooters having neurochemicals rushing due to flight or fight response. I was surprised at the fact students are more likely to be absent in the aftermath of a shooting because of fear which can result in them being left behind due to them missing too much content and being left behind. This is important because it shows an already existing problem that has way more deleterious effects than previously anticipated. People who should know this information are politicians. The reason why I say this is because they are the ones that can issue these changes. As a community our voices can be heard however change won't be effective unless someone of higher power responds and heeds the call. With a issue this big it should be responded to quickly since our youth will be future leaders and if we want to guarantee the safety and future of them we must listen to them and aid them at all costs.

