The answer is B - 10-20 times higher

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IS THERE A LINK BETWEEN MENTAL HEALTH AND GUN VIOLENCE?

By Maria Konnikova, NOVEMBER 19, 2014

A childhood picture of Jaylen Fryberg, the deceased gunman in the Marysville-Pilchuck High School shooting, with a goodbye message from a friend.

On Friday, October 24th, during the busy lunch hour in the school cafeteria of Marysville-Pilchuck High School, in Marysville, Washington, Jaylen Fryberg opened fire on his classmates, killing one student and wounding four others, three of whom later died from their injuries. Then he killed himself.

Just a week earlier, Fryberg had been crowned prince of the school's homecoming court—he was a community volunteer, student athlete, and all-around "good kid." But within hours of the shooting, that picture had changed. Quickly, media

outlets analyzed his tweets, Facebook page, Instagram account, and his text and Facebook messages. He was "full of angst" and "anguished." One media report concluded that "he just wasn't in the right state of mind." Another went further: he was a "depressed sociopath." Many writers pointed out that the Maysville school district had recently received a large federal grant to improve mental-health services for students. "We used to have a much greater social safety net," the district supervisor Jerry Jenkins told the Seattle *Times*. "Yes, he was popular, but there came a time when something changed. If people are educated to look for those, these are things they can do intervene," Carolyn Reinach Wolf, a mental-health lawyer with a specialty in school shootings, said. The suggestion underlying much of the coverage was that improvements in the mental-health system could have prevented the violence.

When mass shooters strike, speculations about their mental health—sometimes borne out, sometimes not—are never far behind. It seems intuitive that someone who could do something terrible must be, in some sense, insane. But is that actually true? Are gun violence and mental illness really so tightly intertwined?

Jeffrey Swanson, a medical sociologist and professor of psychiatry at Duke University, first became interested in the perceived intersection of violence and mental illness while working at the University of Texas Medical Branch at Galveston in the mid-eighties. It was his first job out of graduate school, and he had been asked to estimate how many people in Texas met the criteria for needing mental-health services. As he pored over different data sets, he sensed that there could be some connection between mental health and violence. But he also realized that there was no good statewide data on the connection. "Nobody knew anything

about the real connection between violent behavior and psychiatric disorders," he told me. And so he decided to spend his career in pursuit of that link.

In general, we seem to believe that violent behavior is connected to mental illness. And if the behavior is sensationally violent—as in mass shootings—the perpetrator must certainly have been sick. As recently as 2013, almost forty-six per cent of respondents to a national survey said that people with mental illness were more dangerous than other people. According to two recent Gallup polls, from 2011 and 2013, more people believe that mass shootings result from a failure of the mental-health system than from easy access to guns. Eighty per cent of the population believes that mental illness is at least partially to blame for such incidents.

That belief has shaped our politics. The 1968 Gun Control Act prohibited anyone who had ever been committed to a mental hospital or had been "adjudicated as a mental defective" from purchasing firearms. That prohibition was reaffirmed, in 1993, by the Brady Handgun Violence Prevention Act. It has only become more strictly enforced in the intervening years, with the passing of the National Instant Criminal Background Check System Improvement Act, in 2008, as well as by statewide initiatives. In 2013, New York passed the Safe Act, which mandated that mental-health professionals file reports on patients "likely to engage in conduct that would result in harm to self or others"; those patients, who now number more than thirty-four thousand, have had their guns seized and have been prevented from buying new ones.

Are those policies based on sound science? To understand that question, one has to start with the complexities of the term "mental illness." The technical definition includes any condition that appears in the *Diagnostic and Statistical Manual of Mental Disorders*, but the D.S.M. has changed with the culture; until the nineteen-eighties, homosexuality was listed in some form in the manual. Diagnostic criteria, too, may vary from state to state, hospital to hospital, and doctor to doctor. A diagnosis may change over time, too. Someone can be ill and then, later, be given a clean bill of health: mental illness is, in many cases, not a lifelong diagnosis, especially if it is being medicated. Conversely, someone may be ill but never diagnosed. What happens if the act of violence is the first diagnosable act? Any policy based on mental illness would have failed to prevent it.

When Swanson first analyzed the ostensible connection between violence and mental illness, looking at more than ten thousand individuals (both mentally ill and healthy) during the course of one year, he found that serious mental illness alone was a risk factor for violence—from minor incidents, like shoving, to armed assault—in only four per cent of cases. That is, if you took all of the incidents of violence reported among the people in the survey, mental illness alone could explain only four per cent of the incidents. When Swanson broke the samples down by demographics, he found that the occurrence of violence was more closely associated with whether someone was male, poor, and abusing either alcohol or drugs—and that those three factors alone could predict violent behavior with or without any sign of mental illness. If someone fit all three of those categories, the likelihood of them committing a violent act was high, even if they weren't also mentally ill. If someone fit none, then mental illness was highly unlikely to be predictive of violence. "That study

debunked two myths," Swanson said. "One: people with mental illness are all dangerous. Well, the vast majority are not. And the other myth: that there's no connection at all. There is one. It's quite small, but it's not completely nonexistent."

In 2002, Swanson repeated his study over the course of the year, tracking eight hundred people in four states who were being treated for either psychosis or a major mood disorder (the most severe forms of mental illness). The number who committed a violent act that year, he found, was thirteen per cent. But the likelihood was dependent on whether they were unemployed, poor, living in disadvantaged communities, using drugs or alcohol, and had suffered from "violent victimization" during a part of their lives. The association was a cumulative one: take away all of these factors and the risk fell to two per cent, which is the same risk as found in the general population. Add one, and the risk remained low. Add two, and the risk doubled, at the least. Add three, and the risk of violence rose to thirty per cent.

Other people have since taken up Swanson's work. A subsequent study of over a thousand discharged psychiatric inpatients, known as the MacArthur Violence Risk Assessment Study, found that, a year after their release, patients were only more likely than the average person to be violent if they were also abusing alcohol or drugs. Absent substance abuse, they were no more likely to act violently than were a set of randomly selected neighbors. Two years ago, an analysis of the National Epidemiologic Survey on Alcohol and Related Conditions (which contained data on more than thirty-two thousand individuals) found that just under three per cent of people suffering from severe mental illness had acted violently in the last year, as compared to just under one per cent of

the general population. Those who also abused alcohol or drugs were at an elevated, ten-per-cent risk.

Internationally, too, these results have held, revealing a steady but low link between mental illness and violence, which often coincides with other factors. The same general pattern also emerges if you work backward from incidents of gun violence. Taking a non-random sample of twenty-seven mass murders that took place between 1958 and 1999, J. Reid Meloy, a psychiatrist at the University of California, San Diego, found that the perpetrators, all of whom were adolescent men, were likely to be loners as well as to abuse drugs or alcohol. Close to half had been bullied in the past, and close to half had a history of violence. Twenty-three per cent also had a history of mental illness, but only two of them were exhibiting psychotic symptoms at the time of the violence. When you accounted for the other factors, mental illness added little predictive value. Swanson's own meta-analysis of the existing data, on the links between violence and mental health, which is due out later this year, shows the same basic formula playing out in study after study: mental-health problems do increase the likelihood of violence, but only by a very small amount.

Psychiatrists also have a very hard time predicting which of their patients will go on to commit a violent act. In one study, the University of Pittsburgh psychiatrist Charles Lidz and his colleagues had doctors at a psychiatric emergency department evaluate admitted patients and predict whether or not they would commit violence against others. They found that, over the next six months, fifty-three per cent of those patients who doctors predicted would commit a violent act actually did. Thirty-six per cent of the patients thought not to be violent in fact went on to

commit a violent act. For female patients, the prediction rates were no better than chance. A 2012 meta-analysis of data from close to twenty-five thousand participants, from thirteen countries, led by the Oxford University psychiatrist Seena Fazel, found that the nine assessment tools most commonly used to predict violence—from actuarial ones like the Psychopathy Checklist to clinical judgment tools like the Structured Assessment of Violence Risk in Youth—had only "low to moderate" predictive value.

There is one exception, however, that runs through all of the data: violence against oneself. Mental illness, Swanson has found, increases the risk of gun violence when that violence takes the form of suicide. According to the C.D.C., between twenty-one and forty-four per cent of those who commit suicide had previously exhibited mental-health problems—as indicated by a combination of family interviews and evidence of mental-health treatment found at the scene, such as psychiatric medications—while between sixteen and thirty-three per cent had a history of psychiatric treatment. As Swanson points out, many studies have shown an even higher risk of suicide among the mentally ill, up to ten to twenty times higher than the general population for bipolar disorder and depression, and thirteen times higher for schizophrenia-spectrum disorders.

When it comes to the other types of firearms fatalities, though, it seems fairly clear that the link is quite small and far from predictive. After an incident like Sandy Hook or Virginia Tech, policymakers often strive to improve gun control for the future—and those efforts often focus on mental health and the reporting of prior records, as in the case of Connecticut. But if you look at people like Jaylen Fryberg, Mason Campbell, or Karl

Pierson, you see no formal diagnosis of mental illness, and often, no actual signs of instability, either. Even when there are signs, as in Pierson's case, they often remain undiagnosed: Pierson was sent home from a mental-health evaluation with a clean bill of health. We'll never know whether counselling could have helped Fryberg. Perhaps it could have. But policymakers should also be focussing on other metrics that may have far more to do with such events than mental illness ever has.

In all of his work, Swanson has found one recurring factor: past violence remains the single biggest predictor of future violence. "Any history of violent behavior is a much stronger predictor of future violence than mental-health diagnosis," he told me. If Swanson had his way, gun prohibitions wouldn't be based on mental health, but on records of violent behavior—not just felonies, but also including minor disputes. "There are lots of people out there carrying guns around who have high levels of trait anger—the type who smash and break things," he said. "I believe they shouldn't have guns. That's what's behind the idea of restricting firearms with people with misdemeanor violent-crime convictions or temporary domestic-violence restraining orders, or even multiple D.U.I.s."

"We need to get upstream and try to prevent the unpredicted: how to have healthier, less violent communities in the first place," Swanson said. Mental illness is easy to blame, easy to pinpoint, and easy to legislate against in regards to gun ownership. But that doesn't mean that it is the right place to start in an attempt to curtail violence. The factors responsible for mass violence are messy, complex, and dynamic—and that is a far harder sell to legislators and voters alike. As Swanson put it, "People with

mental illness are still people, and people aren't all one thing or another."

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