

Preventing School Shootings: A Review of Current Practices

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Abstract

The purpose of this paper is to analyze what the current methodologies are to prevent and mitigate an active shooter scenario within educational environments. There are several common practices being utilized by educational institutions to prevent or mitigate casualties from an active shooter scenario, this paper explores which if any successfully fulfill their goal. Previous research highlights that many of the programs implemented are emotionally driven in a desire to do "something," but are often not researched based and end up being ineffective and costly. The rationale for further research is to discover which programs are effective, provide researched based examples of their success and offer areas of further research. Content analysis was utilized in completion of this research, which found that threat analysis, certain anti-bullying programs and multi-option responses aided in reducing the likelihood and increasing the survivability of an active shooter scenario within educational institutions. These findings are significant to inform educational institutions where their effort, time and money should be put towards to create a safer environment for students and staff.

Keywords: threat analysis, preventing school shootings, multi-option response, antibullying

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Introduction

The Federal Bureau of Investigation (FBI) “defines an active shooter as one or more individuals actively engaged in the killing or attempting to kill people in a populated area (U.S. Department of Justice Federal Bureau of Investigation, 2021).” The “active” portion of the definition denotes the ongoing nature of any one event. In 2013 the FBI began an initial review of active shooter incidents, compiling data such as location type (businesses, malls, schools, etc.), state, civilian deceased, law enforcement/security deceased, civilian injured, law enforcement/security injured, weapon types, shooters age, gender and incident outcome (U.S. Department of Justice Federal Bureau of Investigation, 2021). These have been compiled into a report that gives easy and quick access to this data and illustrates two alarming issues: 1) since tracking began active shooter incidents per year have increased reaching over 20 in 2010 and sustaining six straight years of over 20 incidents from 2014-2019, 2) Schools (K-12) are the third highest location for these incidents to occur and one of only four locations where these incidents total more than 40 occurrences (U.S. Department of Justice Federal Bureau of Investigation, 2021). These two points highlight the need for this paper to divulge how these incidents can be prevented and/or mitigated to reduce loss of life and the perceived threat to life.

Being born in 1985, I hit my formative years of development in the late 1990s and vividly remember the first active shooter incident I can recall in a school; it was 1999 and Columbine had just happened and was all over the news. This incident seemed to be the first of its kind and absolutely shook the entire nation. Questions began to flow as more details about the incident came across the news. Questions like how did their parents not know, didn't they have

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any friends, how could no one notice anything strange about them and why were they bullied and not helped. This event captured the nation, and it is still referenced to this day.

It took many years to move past Columbine, but as we did more tragic incidents took place, 2002 University of Arizona College of Nursing, 2006 Duquesne University, 2007 Virginia Tech and the first major elementary school in 2012 Sandy Hook Elementary (U.S. Department of Justice Federal Bureau of Investigation, 2021). Each one of these had a profound impact on how we viewed schools and their safety as a nation and caused numerous investigations into what can be done to prevent these occurrences from happening in the future and how to best protect our schools while still making a fun and comfortable learning environment for our children.

As a father of three school aged children, I wish to discover what if anything can be done to make primary and secondary schools safer institutions from these terrifying and heinous acts at the school and district level without the need to rely on lengthy legislation processes. This paper will seek to understand what the best practices for school safety are, determine if these practices were followed in an incident and if they were not why and suggest some ways to remove potential blockers in school to implement best safe practices. Through my extensive background with firearms through the military, law enforcement and security jobs I have held I recognize I am predisposed to certain biases about the solution to this issue, it is with that in mind that any solutions or suggestions for improved safety in this paper will be backed by peer reviewed sources and thoroughly vetted articles about what went well and did not go well in incidents as well as what the best practices are in this realm.

Thesis

This paper postulates that while active shooter incidents continue to rise and schools (K-12) tend to be a primary location for them to occur, these incidents are determined by factors that can be mitigated and prevent these incidents from occurring at our schools and reducing the fear of them occurring.

Theoretical Framework

Routine Activities Theory by Marcus Felson (McLaughlin & Muncie, 2015) is the idea that it takes a perfect harmony of three elements coming together for a predatory crime to occur. These three elements are motivated offenders, suitable targets and the absence of capable guardians. The foundation of Routine Activities Theory is that there will always be those deviant individuals within a society willing to commit crime, therefore it falls on society to address the other two elements which we can control, being suitable targets and capable guardians. The major issue with this theory is that it assumes that all offenders are making a rational decision to commit crime. It proposes that most crime occurs within the daily routine of people and the offenders witness and exploit tempting opportunities to commit crimes (Tibbetts & Hemmens, 2015).

The issue with this line of thinking is it negates the possibility of pre-planned criminal activity and proposes that offenders “stumble” into opportunities to offend that they cannot pass up. The research conducted for this paper illustrates that not all offenders are rational and that many plan out their crimes ahead of time. The shootings reviewed for the content of this work were planned and were not a “spur of the moment” or a “routine opportunity” within the offender’s day (U.S. Department of Justice Federal Bureau of Investigation, 2021). However, the strength of this theory lies in focusing on the other two aspects of offending, suitable targets and

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lack of capable guardians. It is these two aspects that the research aims to address and provide solutions for preventing these tragedies.

Due to the weakness of rational choice or lifestyle theory in explaining why criminals offend, we turn to anomie or strain theory, which was first developed by Emile Durkheim and expanded upon by Robert Merton. While rational choice theory is of the classical school of sociology, strain theory comes from the social structure school of thought on crime. Social structure theories posit that crime is caused by the way societies are structurally organized, they all focus on a common theme that certain groups of individuals are more likely to commit crime due to disadvantages or cultural differences resulting from the way society is structured (Tibbetts & Hemmens, 2015).

Durkheim focused on the specialization of labor within a society, as labor becomes more specialized (moves toward a more modern society) citizens have less in common and less interactions with one another creating varying sets of morals and values (Tibbetts & Hemmens, 2015). Merton focused his work on the United States and claimed that societies would have equal emphasis on a set of shared goals and the means to achieve these goals. He went on further to say the US epitomizes the kind of society that highlights the goals much more than the means, it is this disequilibrium in emphasis that Merton called anomie (Tibbetts & Hemmens, 2015). Durkheim believed that anomie was primarily caused by a society progressing too rapidly to adequately regulate interactions amongst its members, conversely Merton believed too much focus on the goals of wealth within the United States at the expense of conventional means causes anomie (Tibbetts & Hemmens, 2015).

Merton presents five adaptations to strain conformity, ritualism, innovation, retreatism and rebellion. Of these five adaptations it is the latter three innovation, retreatism and rebellion

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that we often see the most criminal activity derived from. Retreatism is interesting for the scope of this paper as Merton describes retreatists as those who do not seek to achieve the goals of society and they also do not buy into the idea of conventional arduous work. A famous retreatist is Ted Kaczynski also known as The Unabomber. Kaczynski left a prominent job as a professor at UC-Berkeley to live in isolation at a cabin in Montana with no human interaction for months on end. The following years of violence speaks to the contents of this paper and the theoretical framework being established in these two theories of offending (Tibbetts & Hemmens, 2015).

This paper aims to acknowledge that there will always be individuals willing to commit the act of mass shootings and designate schools to perpetrate that act, it also aims to highlight similarities within this unique group of offenders using anomie and the adaptation of retreatism to potentially highlight markers of potential shooters that authority figures may use in preventing violent actions. By researching best practices on preventing/mitigating mass shootings at schools and analyzing post incident critiques we may focus on the two strong aspects of routine activities theory by making the 'targets' (schools/students) less suitable, while also increasing the availability of capable guardians. It is through the lens of Routine Activities Theory and Strain Theory that this paper will be researched, and the findings discussed.

The Assessment

Even after over 25 years since the first major modern-day school shooting to make national headlines, there is still a dearth of data examining the effectiveness of various methods (Jonson, 2017). Schools are thought of as the ultimate safe place for children to experience learning both academically and socially, although school violence and disruption levels have seen a decline there is still the fear and potential for them to happen. In order to best protect our children many methods have been implemented without due regard to research nor best practice.

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Many institutions and governments are wasting millions of dollars on unproven methods (Jonson, 2017). The current body of knowledge on school shootings is growing rapidly but is still in infancy and will require more strenuous research to be conducted to obtain a more robust comprehension of the issue and its potential solutions.

There is a lack of a common database in which researchers may study and analyze the different methods schools, governments and districts have attempted to implement when attempting to prevent or in response to an active shooter scenario (Johnson, 2017). It is quite apparent that some of the difficulties lie in establishing a joint database of information for researchers to study. Primarily the lack of uniformity in language and definitions which creates differing results and disrupts reliability (Astor et al., 2010). If researchers, decision makers, community members and policy members cannot even agree on common terms and definitions, it makes discussing solutions and conducting research exponentially more difficult. A necessary first step would be to define what is considered an active shooting event as there are many conflicting definitions.

The FBI (2021) defines a mass killing as one in which an active shooter kills three or more individuals, other definitions have varying thresholds of casualties in an active shooter event to establish a mass killing (Borum et al., 2010) (Astor et al., 2010). A common working definition of what defines a school shooting should be agreed upon by field experts and should include definitions of an active shooter, a school shooting, differentiation between a school shooting and a shooting that merely takes place at school, this will allow establish a foundation in which research and policy making can sprout from while also eliminating inflated data that does not meet criteria. This would create a more accurate picture of the issue and allow for improved resolutions to be enacted.

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With a common language of the issue resolved, the field can begin to establish centralized databases focused on schools reporting violent crimes and threats that take place on the premises, much like the FBI's NCR or NIBS does for local law enforcement (Mayer & Furlong, 2010). Without this it is difficult for researchers to have reliable datasets putting program evaluations and research validity in jeopardy (Mayer & Furlong, 2010) (Astor et al., 2010). Though there is reporting associated with the No Child Left Behind Act, it is of limited value due to the variable approaches, use and the unrealistic standard of persistently dangerous schools, which has been shown to discourage schools from reporting any schools as such due to the harsh penalties that accompany it (Mayer & Furlong, 2010)(Astor et al., 2010)(Borum et al., 2010). These events are exceedingly rare, creating a scarcity of available events to research, especially control groups. Additionally national surveys, those that inform research, policy and practice have been designed with differing and sometimes conflicting purposes, producing conflicting data (Mayer & Furlong, 2010). This lack of a national database on school-based violence and threats makes trend analysis complicated due to limited and incongruent national-level measurements that span different time periods (Astor et al., 2010).

Many schools and researchers utilize an overly narrow definition of school violence and disruption, primarily with an academic focus at the detriment of students' social and emotional development (Cornell & Mayer, 2010). A broader view of school violence is needed to allow for a more comprehensive view of resolutions and detection of comorbid issues. This is significant given the prevalence of bullying being a root cause of creating feelings of not being safe at school and negatively impacting the atmosphere (Swearer et al., 2010). Bullying has been linked to a decline in academic performance, an increase in violent behavior and tendencies of other students and role strain by faculty members (Swearer et al., 2010) (Fox & Harding, 2005)

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(Cornell & Mayer, 2010). Linking major national surveys to established theoretical foundations and frameworks could help document the context of instances of school violence enhancing our understanding and enabling better solutions to be implemented (Cornell & Mayer, 2010) (Fox & Harding, 2005) (Swearer et al., 2010).

Translational research is another area of worthy discussion, many EBPs are shown to be effective in their intended outcomes in the small samples they were initially implemented, but when sized up to district, regional or national levels many fall short of the desired and observed outcomes seen on a smaller level (Astor et al., 2010). This creates issues of external validity stemming from program generalizability. Evaluations are often conducted with a non-representative convenience sample under controlled conditions, programs need to be evaluated in a variety of differing school settings with varying resources and be put under a more rigorous evaluation process to determine true effectiveness (Astor et al., 2010). Program implementation failures are large and costly, most can be associated with a lack of conceptualization, many did not have a pretest that indicated the program was even necessary in the first place. Many schools struggle to show community members whether programs are effective (Astor et al., 2010). A statewide monitoring system should be implemented in an attempt at improving programs and aid in identification of ones that work within differing regional and cultural settings (Astor et al., 2010).

Other notable challenges are the design and evaluation of evidence-based programs (EBP), though entities attempt to define defensible criteria, there are sizeable differences in standards for inclusion (Astor et al., 2010). Establishing an evidence base has proven troublesome as it is arduous to achieve internal validity, establishing a control group in a real-world setting as you would in the laboratory is impossible (Astor et al., 2010).

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These are but a few areas of potential improvement that subject matter experts can look at when deciding on how to determine how best to deepen the knowledge base in the field and create better programs for schools, students and their respective communities.

Though there are many more unanswered questions regarding school violence and disorder Mayer & Furlong (2010) leave us with a core set of questions that can drive future research and expand the knowledge base: “1) What are the standards of risk for harm, and how should they be defined? 2) What are acceptable and unacceptable degrees of risk and how do they mesh with societal commitment to address the risk? 3) What should be measured, how should it be measured and to what does it connect? 4) What are the primary research questions and the methodologies to answer them? 5) What future structures and approaches will help not only bridge the research-to-practice gap but promote increased effectiveness and synergy across research?”

Literature Review

Analysis of School Shooters

In 2021 the Federal Bureau of Investigation (FBI) released a 20-year report on active shooter incidents within the United States of America (USA) summarizing and compiling location types and categories, casualty breakdowns, shooter outcomes, shooter weapons, and shooter demographics (U.S. Department of Justice Federal Bureau of Investigation, 2021). One of the issues common amongst resolving this issue is a lack of common language, key terms and agreed upon definitions (Swearer et al., 2010).

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There are two major terms that are necessary to encompass the entire issue at hand, one being active shooter, which is a person or persons currently engaged in the harming or killing of others with a weapon or weapons (U.S. Department of Justice Federal Bureau of Investigation, 2021). The other is “mass killing,” which the FBI (2021) defines as an active shooter incident where three or more individuals were killed, while all occurrences of killing utilizing a weapon are technically active shooter incidents, not all would fall under the definition of a mass killing. During the period reviewed in the report (2000-2019) there were 333 active shooter incidents within the USA and District of Columbia, of those 333 only approximately 1/3 of incidents (135) met the mass killing threshold (U.S. Department of Justice Federal Bureau of Investigation, 2021).

The FBI (2021) report collected active shooter incident data from 2000-2019 and broke that data down by location. The area this paper is concerned with is active shooter incidents within schools, however some overall data helps illustrate the issue. Of the 345 shooters a sweeping preponderance were male (96%), this percentage holds up of the incidents solely at educational environments as well (U.S. Department of Justice Federal Bureau of Investigation, 2021). Of the 62 incidents that took place at educational environments 56% (36) of shooters were in their teens, the next closest age group (20s) accounted for only 17% of shooters at educational environments (U.S. Department of Justice Federal Bureau of Investigation, 2021). Of the 62 active shooter incidents that occurred in educational settings between 2000-2019 a majority of them occurred at high schools (40%) which also accounted for the bulk of the wounded and killed, 25% and 58% respectively, the only other institution to experience a double digit occurrence of incidents (18) was institutions of higher education (colleges, universities, school board meetings, etc.) which account for 29% of all incidents with 46% of the total wounded and

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31% killed within educational environments (U.S. Department of Justice Federal Bureau of Investigation, 2021). While data has been collected on active shooters and active shooter incidents, the US Department of Education and Secret Service conducted a systematic review of active shooting incidents concluding that there is no accurate or useful demographic or social profile of school attackers (Borum et al., 2010).

Media Influence on Feelings of School Safety

In today's world society depends on news media to obtain information about their world, there has been no greater influence on news media than the 24-hour news cycle which continuously informs and repeats news throughout the day. The 24-hour news cycle has been a large contributor to the hysteria and fear surrounding school shootings, research has shown that negative feelings about school safety spike after an active shooter event in an educational environment (Jonson, 2017) (Borum et al., 2010). The largest increase recorded occurred after the Columbine mass killing in which 55% of parents stated they feared for their eldest child's safety at school (Jonson, 2017), and shortly after "a Gallup poll found that two thirds of Americans believed that a similar incident was 'very likely' or 'somewhat likely' to happen in their community (Borum et al., 2010)."

Although the general public's intense feelings on these events tends to dissipate over time, such as in the years following Columbine when it dissipated to only 20% of parents stating they feared for their eldest child's safety at school (Jonson, 2017,), within a year of Columbine 71% of parents stated that this active shooter event changed their views on how safe their children were at school and fewer than 40% regarded their children as 'very safe' and only 50% as 'somewhat safe' (Borum et al., 2010). The intense nature of these horrific, albeit rare, incidents often confuse and cloud the reality of how isolated these events are.

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While the media may portray these incidents as a new pattern of violence spiraling out of control in what should be our safest institutions, the numbers do not support this sensationalized viewpoint, empirical study of primary source documents when comparing media depictions of school shootings with investigative and court records highlight that in many cases the media depictions of events are incomplete or inaccurate (Jonson, 2017) (Borum et al., 2010).

Crime in the US, particularly violent crime, has been on the decline for years in general and specifically violent crimes on school grounds (Jonson, 2017). Prior to the Columbine active shooter incident between 1992-1997 the number of young people ages 5-18 killed while at school ranged from a low of 28 in 1994 and 1996, to a high of 34 in 1992 and 1997, during the next 15 years no academic year would exceed 33 deaths with eight under 20 (Jonson, 2017). During the year of the Columbine active shooter incident 17 students were killed at school, while more than 2500 young people ages 5-19 were murdered outside of school and over 9,700 were killed in accidents (Borum et al., 2010). Educational environments can expect to see a homicide on the grounds once every 6,000 years, in the 10-year period from 1996-1997 to 2005-2006 there was an average of 21 student deaths per year on school grounds, which represents less than one percent of the annual homicides of youth ages 5-18 in the United States (Borum et al., 2010).

The intense publicity about these events can create a phenomenon known as “moral panic,” Jonson (2017) states moral panics occur “when a condition, episode, person or group of persons emerges to become defined as a threat to societal values and interest” and “once someone or something is defined as a threat, it becomes excessively portrayed by the media, often exaggerating the magnitude of the particular threat.” Jonson (2017) goes on to declare that “the moral panic concludes when either the panic recedes as time passes and the current panic is replaced by a new threat or social changes are seen.” These ideas by Jonson (2017) highlight

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both the forgetfulness of the public of such events, as parental fear dissipated in the months following the Columbine and Virginia Tech incidents and the emotional responses that follow.

Active shooter incidents are also not a “new” occurrence as the general media and citizen consensus view them to be, there have been tablets found dating back to 2000 BC that depict multiple instances of school violence in Mesopotamia, in *Centuries of Old* there are numerous accounts of assaults, riots and shootings in European schools from the Middle Ages to the 19th century, educators in colonial America also frequently dealt with violent student mutinies and public concern with school safety and order in the US persisted throughout the 19th century (Cornell & Mayer, 2010) (Mayer & Furlong, 2010). Even before the Columbine incident there were two such incidents in 1997 at Pearl High School in Pearl, MS and Heath High School in West Paducah, KY as well as an incident in 1998 at Thurston High School in Springfield, OR, but none of the same intense media coverage was dedicated to these very similar occurrences as was to Columbine (Jonson, 2017).

While these mass killing events are horrific and troubling, the moral panic that emerges from them, spurred on by intense and often incomplete and misguided media coverage leads to policy decisions to be emotionally made (Jonson, 2017) (Borum et al., 2010) (Swearer et al., 2010). These emotional policy decisions lead to programs that are not evidence based and are not best practice, this can lead to millions in wasted funds and man-hours and ultimately may leave the schools no safer than before the programs were instituted (Jonson, 2017) (Swearer et al., 2010) (Borum et al., 2010).

Are School Shooting Prevention Programs Working

Active shooting events cause panic, increase parental fears and decrease beliefs of safety while at educational environments (Jonson, 2017), these emotions often lead to public outcry for something to be done. Over the years the programs most found in place are emergency response plans, mass notification systems, threat assessments, crisis teams, zero-tolerance policies, metal detectors, access control measures, armed police on the grounds, bullying prevention programs, armed teachers and active shooter response plans (Jonson, 2017) (Erickson, 2001). As stated above by Jonson (2017) many of these policies are a visceral reaction to a tragic event and do not consider the current research or best practices and are often implemented with little to no research on whether they are actually effective in reducing or preventing active shooter incidents within educational environments (Jonson, 2017) (Borum et al., 2010) (Erickson, 2001).

Most of the common responses we find can be categorized as situational crime prevention (Jonson, 2017), this perspective is based on routine activities theory which posits criminals make a rational choice to commit a crime based on opportunity (McLaughlin & Muncie, 2013). The issue with this line of thinking is it negates the possibility of pre-planned criminal activity and proposes that offenders “stumble” into opportunities to offend that they cannot pass up (Tibbetts & Hemmens, 2014). As many after-action reports have illustrated there were signs before the event that indicated the students plans (Erickson, 2001) (Idaho School Safety and Security Program, 2021) (Safe Havens International, 2016). Jonson (2017) states that “situational crime prevention can be characterized as compromising measures (1) directed at highly specific forms of crime (2) that involve the management, design or manipulation of the immediate environment in as systematic and permanent way as possible (3) so as to reduce the opportunities for crime and increase the risks as perceived by a wide range of offenders.” This

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narrow view allows for many issues within educational institutions to be missed and create an environment not felt to be safe by students which can lead to an active shooter incident or other forms of deviance (Swearer et al., 2010).

The number of schools employing armed private security or school resource officers (SROs) has skyrocketed from only 13% in 1994 to over 51% in 2014, financial incentive was provided by the Department of Justice to institute this response, to the tune of over \$745 million (Jonson, 2017). The current state of research is inconclusive on whether SROs are effective, evaluations of these measures, however, have shown they often have little to no effect on criminal activity on school grounds and may even increase fear and anxiety amongst the student body (Jonson, 2017).

It is also important to note that both Columbine and Virginia Tech, had SROs and security guards which did not deter the shooters, during the Columbine incident one of the shooters exchanged gunfire with the SRO before proceeding to the library to murder more students (Jonson, 2017). Five officers plus the police chief were present on campus the morning of the Virginia Tech incident, the shooter was aware of their presence as he had dealt with them months prior to the incident, in both cases none of the shooters were deterred by known police/security presences (Jonson, 2017).

Often due to the time and resources it takes to hire security or an SRO access control measures are implemented first and are the most common methods seen regarding increased school security (Jonson, 2017). These measures may include locking exterior doors, screening visitors, requiring identification (ID) badges for students and staff, metal detectors, installing video surveillance or many others (Borum et al., 2010) (Jonson, 2017). A 2000 survey of all public middle and high schools revealed that half of them locked and monitored their doors, with

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96% of those stating they did it in response to highly publicized school crimes (Jonson, 2017). By 2015 the percentage of schools who expressed locking and monitoring doors grew significantly to over 90% following the incidents at Virginia Tech and Sandy Hook (Jonson, 2017).

These measures are often implemented without consulting current research, in 2011 a national study of 954 high schools was published, it revealed that few security measures had any preventative impact, specifically access control measures on either violent or serious violent crimes, in fact the reality is that most active school shooter are students, faculty or staff who have the proper ID to gain entry and have a valid reason for being there, all the shooters from Columbine, Pearl, Heath and Virginia Tech were all current students of the schools (Fox & Harding, 2005) (Jonson, 2017). At both West Side Middle School and Sandy Hook, the shooter circumvented access control by pulling the fire alarm and waiting for students and faculty to evacuate before firing from the woods and shooting the glass out around the locked doors respectively (Jonson, 2017).

The effects of surveillance cameras on reducing violent/disruptive behavior on school grounds has not been extensively studied and studies on them in other settings have provided mixed results (Jonson, 2017) (Borum et al., 2010). There has also been little empirical research to support the use of metal detectors within school grounds, however metal detectors have been shown to decrease students' perceptions of trust and caring while also increasing feelings of being unsafe (Jonson, 2017) (Borum et al., 2010).

Another method of active shooter prevention has been profiling and warning signs, this method is not supported by current research and as with zero-tolerance policies has a propensity to mislabel students and disproportionately target minorities (Cornell & Mayer, 2010) (Borum et

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al., 2010). Active shooter incidents at schools are so rare that most students who fit the profile will never initiate an incident and some who are planning one do not fit the profile at all, making this an ineffective method (Borum et al., 2010). The Secret Service and Department of Education conducted a review of targeted shooting incidents and found no accurate or useful profile of school attackers (Borum et al., 2010).

Zero-tolerance policies have become wildly popular and have resulted in thousands of students being expelled from schools each year, for what used to be minor infractions such as bringing a water pistol to school, firing a paper clip from a rubber band or pointing your finger as a gun at someone in a playful game of cops and robbers on the playground (Cornell & Mayer, 2010). There have been disturbing findings of racial and ethnic inequities in school discipline for decades, labeled the school discipline gap (Cornell & Mayer, 2010). According to Cornell & Mayer (2010) the “school discipline gap has ominous implications in multiple domains, from the persistent achievement gap and higher dropout rates observed in disadvantaged minority youth to their lower socioeconomic status and disproportionate involvement in the criminal justice system in adulthood (Cornell & Mayer, 2010).” Bluntly zero-tolerance policies have robbed faculty and administrators of their discretion, criminalized once playful behavior, mislabeled students and as Borum et al (2010) illustrates, there is a paucity of evidence to support the wide use of zero-tolerance approaches.

In relation to zero-tolerance policies comes from a section of the Elementary and Secondary Act of 1965, which was amended by the No Child Left Behind Act of 2001, which “required that states develop policies permitting a student to attend a safe school within the district if he or she attends a persistently dangerous school or becomes the victim of violent crime (as defined by the state) while in school or on school grounds (Borum et al., 2010).” This

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amendment has been titled the Unsafe School Choice option, the Acts responsible for this provision did not provide explicit language to define what a persistently dangerous school is (Borum et al., 2010). While the U.S. Department of Education has provided guidance on this matter, their recommendations are non-binding and as such many states, districts and schools have had to formulate their own policies on what defines a persistently dangerous school (Borum et al., 2010). Seeing that there is a lack of formal guidance on defining an educational institution as “persistently dangerous,” many states have elected to utilize the number of suspensions and expulsions as the criterion of determination (Borum et al., 2010).

While this data is readily available, the validity of this approach has not yet been determined and has the potential to lead to the same discriminatory outcomes and mislabeling research has shown exist with zero-tolerance policies (Borum et al., 2010) (Cornell & Mayer, 2010). In 2003 only 52 schools nationwide were defined as “persistently dangerous” with an overwhelming majority of states (44 of 50), along with major cities including Los Angeles, Chicago, Detroit, Miami, Cleveland, San Diego, Baltimore and Washington D.C. declaring that not one single school within their area of responsibility met the requirements to be labeled as persistently dangerous (Borum et al., 2010).

While fashionable opinions on school safety may be derived from big Hollywood films such as *Blackboard Jungle* and *Dangerous Minds*, where rebellious youth from impoverished and high crime neighborhoods engage in disrespectful and disruptive behavior to outright violence and danger. This portrayal creates the appearance of a ‘special case’ of delinquent students attending school in a high-crime community that leads to a persistently dangerous school, this however is a dramatization and by no means is confined to this perceived ‘special case’ (Cornell & Mayer, 2010). The net effect of the Unsafe School Choice Option of the No Child Left Behind

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Act of 2001 has discouraged state education agencies and local districts from openly dealing with schools that experience high rates of criminal violence, in 2007 it was proposed by the Safe and Drug-Free Schools and Communities Advisory Committee that this provision be revised when the next No Child Left Behind Act is reauthorized (Borum et al., 2010).

Reframing School Shootings as School Safety

School shootings are a complex problem that crosses a myriad of areas including academic achievement, school violence and disruption, and prevention approaches (Cornell & Mayer, 2010). School violence is not a singular problem that can be solved by a singular solution, rather it involves a variety of challenges and problems that require a multipronged approach to address the varying continuum of issues from playful misbehavior to disrespectful, hostile and progressively more violent transgressions (Cornell & Mayer, 2010).

Over the past five decades there have been many congressional hearings on the perceived uptick in student violence, from the 1975 senate report concluded that homicide, rape, robbery and assault in schools were increasing dramatically (Cornell & Mayer, 2010). This conviction was confirmed by the Safe Schools Act of 1968, the Gun Free School Zones Act of 1990 and the modified Gun Free School Zones Act of 1996, although these concerns are not new, academic interest in studying this phenomenon is (Cornell & Mayer, 2010). A 2009 Google Scholar search on school violence generated more than 15,000 articles, although the term school violence is insufficient to fully encompass the topic of school safety, it shows the impressive size of the current literature (Cornell & Mayer, 2010). Data from Zimring and Hawkins (1997) showed that although lethal violence occurs more often in the United States than other industrialized countries, the overall rate of crime to include non-violent crime is remarkably similar (Borum et al., 2010).

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The “get tough” approaches to targeting general crime are unlikely to reduce the murder rate as they concluded that homicides were unconnected to other criminal activity (Borum et al., 2010). Borum et al. (2010) recommends applying this analysis to distinguish school homicide from the overall school crime problem as well. The frequency of student homicide and suicide is much lower at school than outside of it, for example in the 2004 academic school year there were 21 homicides of youth ages 5-18 at school but over 1500 outside of school (Borum et al., 2010)!

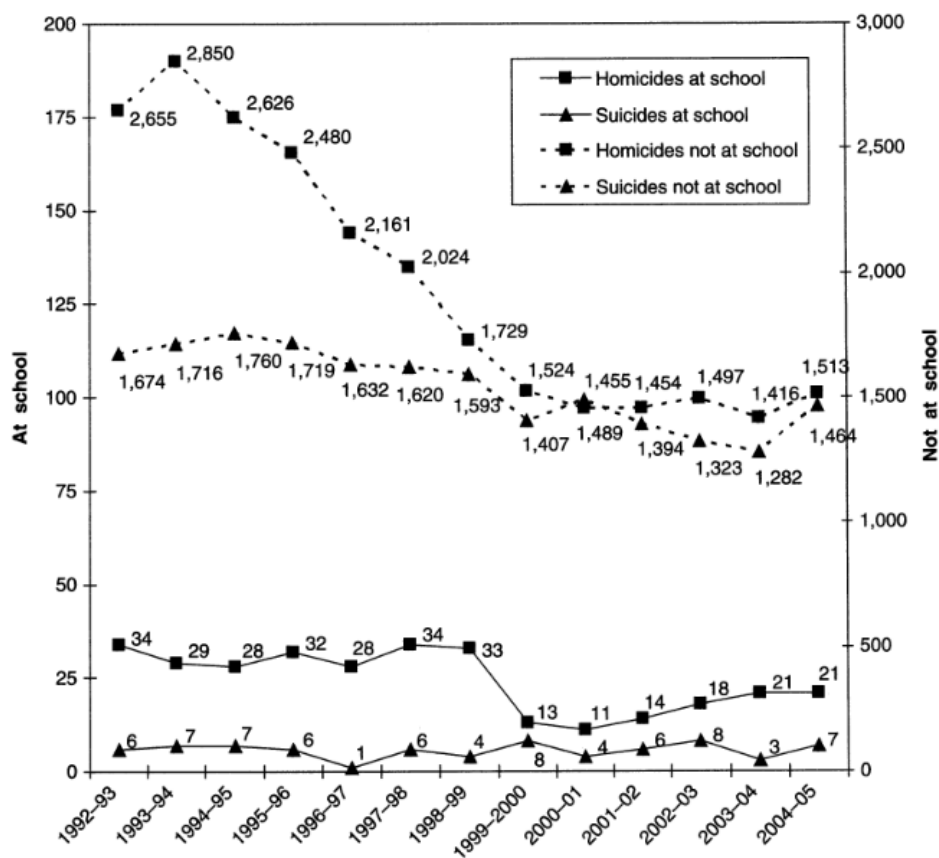


FIGURE 1. Student homicides and suicides at school and not at school. Cases refer to victims of homicide and suicide, ages 5 to 18. “At school” means on school property, at a school-sponsored event, or while traveling to or from school or a school-sponsored event. Data obtained from the School-Associated Violent Deaths Surveillance Study of the Centers for Disease Control and Prevention (Modzeleski et al., 2008).

Homicide rates were not found to be significantly different between rural and urban areas or public versus private schools, most school associated homicides, much like other juvenile homicides, tend to revolve around gangs, drugs or other interpersonal disputes where the school is simply the site of convenience where their target may be found and not the target itself (Borum

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et al., 2010). Because of this distinction in occurrences, the U.S. Secret Service and Department of Education Safe School Initiative dubbed school shootings where it was important to the attacker that the shooting occur at the school and not merely their intended target happen to be at the school as “targeted school-based attacks (Borum et al., 2010).” With this data before us we can clearly see that students are much safer within school walls than outside of them, contrary to media sensationalization, moral imperative and community (parent, student and faculty) sense of school safety (Borum et al., 2010) (Jonson, 2017) (Swearer et al., 2010).

However even though our schools may be statistically much safer than is portrayed, there is still an underlying issue of outbursts of violence that result in not only deadly consequences but can have cascading effects on many other facets of school operations and student well-being. School safety is the common denominator for research involving education, juvenile justice, mental health, social welfare, school, clinical, community psychology, sociology and related disciplines (Cornell & Mayer, 2010). There are several common concerns uniting these diverse fields of research to include “a) coordinated and efficient functioning of schools with other organizations serving youth, b) positive investment, engagement and collaboration among all stakeholders, c) physical and psychological well-being of students and their families and d) consistent progress in achieving desired outcomes in the academic and social-emotional-behavioral realms (Cornell & Mayer, 2010).” Thereby signifying a coalescence of inquiry centered around school order and safety creating a new sphere of research, this sphere is relevant to studies of the achievement gap, teacher attrition, classroom management and motivation, dropout prevention, community poverty and cultural disenfranchisement amongst a host of other educational research topics (Cornell & Mayer, 2010). In short “safe and orderly schools are the sine qua non for efficient and effective academic programs (Cornell & Mayer, 2010).”

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There is a growing body of evidence over the past 15 years demonstrating how school disorder impairs learning achievement, it shows that both bullies and their victims are at risk for both short and long-term adjustment difficulties such as academic problems, psychological difficulties and social relationship problems (Cornell & Mayer, 2010) (Swearer et al., 2010). Student misbehavior not only causes classroom disruptions, but it also robs teachers of precious instructional time and has an added long-lasting impact. According to Cornell & Mayer (2010) “teachers can suffer from emotional strain and burnout that damage their feelings of commitment and self-efficacy, leading to negative and depersonalizing attitudes towards students,” which can lead to teachers missing signals or precursors from students (Cornell & Mayer, 2010) (Fox & Harding, 2005).

According to a national survey in 2003, 242,000 teachers reported being threatened with injury with a weapon and 120,000 reported being physically attacked, the effect is not only felt by teachers but students as well, the distractions are often compounded by anxiety over bullying and fear of personal safety, six percent of secondary students in 2005 reported school avoidance during the past 6 months citing fear of attack or harm (Cornell & Mayer, 2010). According to Swearer et al (2010) there have been links between anger, aggression, violence, hyperactivity, externalizing problems and later delinquency and criminality. But bullies are not the only students suffering, victimization has been shown to lead to illnesses, school avoidance, poor academic performance, increased fear and anxiety and depression, suicidal ideations are also prevalent amongst bullies, victims and bully-victims (Swearer et al., 2010).

A variety of models and mechanisms concern researchers and have been shown to lead to lower academic performance (Cornell & Mayer, 2010). Studies have highlighted peer conflict (bullying) and peer rejection, victimization and threats of violence that produce psychosocial

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adjustment problems (depression, anxiety, attentional problems and social withdrawal) that lead to school avoidance and reduced motivation to engage in learning activities (Cornell & Mayer, 2010). To this point “37 countries showed a significant negative association between student and peer victimization reports and national measures of math achievement (Cornell & Mayer, 2010).”

Research has also shown that classroom aggression by a few students can increase aggression in others, there is also evidence that low level incivility may be a key factor in student adjustment and psychological well-being, the National Crime Victimization Survey from 2001-2005 found that “measures of day to day incivility accounted for about double the explained variance of student anxiety, fear and avoidant behaviors, in comparison with an alternate model using reports of theft and more overt personal harm without incivility variable (Cornell & Mayer, 2010).” While there is no solid agreement on what the term incivility means it can cover a gambit of behaviors such as general acts of social exclusion, intimidation, outright bullying and hateful (racist and bigoted) language (Cornell & Mayer, 2010). These behaviors have been shown to have specific harmful effects on students to include increased aggressive behaviors, more negative future expectations and perceptions of a less school environment, which we have shown earlier is factually not the case but feelings and perceptions of safety can often have a more profound impact than whether or not someone is actually safe (Cornell & Mayer, 2010).

As stated in the previous paragraphs there are several specific ways a school environment may feel unsafe to both students and staff members, but what if the incivility and feelings of unsafeness were merely a byproduct of the organization itself? What if these instances of active shooting were not merely ‘crazy kids’ but like the popular novel, were a series of unfortunate events? Events that were missed and if put together, would have sent alarms and warning signs

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to those who had the ability to make a difference before violence and tragedy erupted. This is the idea behind Fox & Harding's (2005) research on organizational deviance, they posit that "rampage school shootings can profitably be viewed as instances of organizational deviance, in which routine, normative actions in an organizational context can lead to highly suboptimal outcomes." This simply means that the normal functioning of educational institutions may be what is the issue in missing many of the signs and signals that may signify a student needs help. They go on to describe its on-set, "organizational deviance occurs when events that are created by or in organizations do not conform to an organization's goals or expectations and produce unanticipated and harmful outcomes (Fox & Harding, 2005)."

While arguments are not made to condemn or criticize any one individual within educational institutions, there are numerous examples of staff and faculty missing obvious warning signs of students in distress and a potential risk to themselves or others. Fox & Harding (2005) highlight several key areas within educational organizations that may lead to the missing of warning signs, structural secrecy, loose coupling, role strain, routine signals, institutional memory loss, goal ambivalence and organizational environment and culture. A loosely coupled organization is one in which the individual parts are minimally dependent upon one another for their functioning (Fox & Harding, 2005). Even though there may be several layers of educational standardization (national, state, district) enacted at any given time, schools do not respond well to policy mandates, teachers still have massive amounts of autonomy within their classrooms and decide exactly how those standardizations are implemented.

Policy changes enacted without severely modifying incentives or organizational structures and cultures have little to no impact on daily classroom routines (Fox & Harding, 2005). Disciplinary actions were also found to be loosely coupled, although there are disciplinary

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programs enacted at educational institutions (zero-tolerance, etc.), it is often up to the teachers discretion whether or not to initiate those processes or how to administer discipline within their classrooms, this can lead to inconsistent administration of the disciplinary programs or worse unfairly applying them based upon known or unknown prejudices contributing to the racial and ethnic inequities oft found in school disciplinary programs previously stated by Cornell & Mayer (2010) (Fox & Harding, 2005).

This loose coupling leads to a lack of necessary communication between the components of educational institutions, whether it be about academic performance changes, disciplinary issues, or issues outside of school. This knowledge often goes unshared between relevant parties and results in what Fox & Harding (2005) describe as structural secrecy. Structural secrecy is merely the failure of pertinent information sharing among relevant parties due to structural aspects of the organization, such as divisions of labor, hierarchy or specialization of tasks and goals (Fox & Harding, 2005). Structural secrecy goes hand-in-hand with loose coupling and is exacerbated in a school environment, education of students is primarily handled by teachers, discipline is primarily handled by administrators, physical wellbeing is often handled by school nurses, counseling (both academic and therapeutic) is handled by guidance counselors, each one of these areas is highly segregated but paramount in gathering relevant information on a student's total wellbeing.

Often educational institutions do not have any formal method for the information each one of these areas has on a particular student to be shared with the others and problematically many faculty members do not wish to share this knowledge as they believe in a "clean slate" for their students (Fox & Harding, 2005). The lack of sharing between faculty members at any given school then results in information loss which allows many students to fall through the cracks,

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many times this is how post incident interviews contain a litany of quotes orbiting around a central theme “I never thought they’d be the one to do something like this” or the attackers are often described as “the quiet kid,” never known to make much trouble or be overly disruptive, in summary, structural secrecy impedes the flow of information amongst staff members making it extremely difficult to identify and aid troubled students and dramatically increasing the chance for things to go wrong (Fox & Harding, 2005)(Cornell & Mayer, 2010)(Tibbetts & Hemmens, 2015) (Mayer & Furlong, 2010) (Idaho School Safety and Security Program, 2021).

What unites these areas into problems starts with the goal ambivalence that schools and society in general has. This ambivalence is specific to what the primary goal schools serve in the lives of their students, many Americans and teachers alike believe their primary goal is merely traditional subject academics. While this is an important goal, it is narrowly focused and contributes to many signs and signals being lost. If behaviors do not disrupt traditional learning, then often they are ignored and forgotten (information loss), if they are disruptive then that student is often removed from class so that traditional learning can continue without ever addressing the issue of why that student is being disruptive in the first place (Fox & Harding, 2005) (Mayer & Furlong, 2010).

Much of this goal ambivalence could be chalked up to a lack of resources, with so much expected of schools and without goal coherence you get varying degrees of focus on a myriad of different areas. While traditional academic education is the default, focusing on educating the students and not merely teaching subject matter may lead teachers into conversations otherwise unobtainable with students when merely being subject focused, “teach the student not teach merely history to students (Fox & Harding, 2005).”

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Part of the issue is role strain, a lack of resources or more accurately a consolidation of duties and responsibilities makes it difficult for any organization to reach goals, our educational institutions are no different. Many teachers are overburdened with larger classroom sizes, which restrains personalized instruction and prohibits the development of relationships between students and teachers that would allow them to discern potential signs of trouble or distress (Fox & Harding, 2005). Teachers, unfortunately, are not the only examples of being overburdened, many school guidance counselors are expected to pull double duty and not only advise students academically but also attempt to tend to their emotional and mental wellbeing as well, often they are not professionally trained for the latter (Fox & Harding, 2005). Some schools are fortunate enough to employ licensed school therapists, while they have the training and expertise desired to assist students, often the paperwork mounts and makes it difficult for them to render care to the best of their abilities (Fox & Harding, 2005).

The path to becoming an educator in modern times can be a long and arduous process. You will need to first attend a college or university and obtain your bachelor's degree after successfully graduating from high school, upon graduating you will then need to apply to the program or teaching focus of your choice in order to obtain licensure, pass any tests, officially apply for your teaching license and then apply for and be hired into your first teaching role (Teach, 2019). For many this is where training stops, any further development varies depending on state and district requirements, from nothing to any number of conferences held throughout the nation. In Minnesota every school year on the third Thursday and Friday of October, school is out for what is called MEA, which stands for the Minnesota Educator Academy, this is the largest single professional development conference in the state and draws thousands of educators

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from all over the state to participate in the day long workshop (Mitchell, 2023) (Education Minnesota, 2023).

While this is a unique opportunity for continued professional development, it is not a nationwide requirement and teachers may go on receiving no further formal training than what was required to obtain that first teaching job. Much like law enforcement, specifically patrol officers, the duties and roles educators are expected to play in schools continues to grow, often outpacing the amount of training they have received further exacerbating the issue of role strain within educational institutions (Fox & Harding, 2005). Many teachers agree with the philosophy of addressing students' non-academic development, but many find themselves incapable of doing that, whether due to a lack of training or not enough time to devote the one-on-one attention a particular student may need (Fox & Harding, 2005). Teachers from both Heath and Westside professed they lacked training on how to identify students with non-academic difficulties and the little professional development they did receive was largely academic focused, how to incorporate new technology into the classroom, best practices for teaching, team building or improving standardized test scores (Fox & Harding, 2005). The size of classrooms has also been an issue on teachers' ability to adequately help all their students, one teacher at Westside stated "there's just no physical way to do everything that needs to be done to one student... You might get to know a person if you didn't have but 15-18 kids. But when you've got 30 kids in a classroom, there's no way (Fox & Harding, 2005)."

The goal ambivalence faced by many schools over the educational development of students on one hand and the emotional and social development of them on the other, often creates role conflict in addition to the role strain previously discussed on educators. With the introduction of standardized testing many teachers felt they had less time to focus on non-

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academic learning in their classrooms in an effort to ensure students performed well on the new testing, this has caused some teachers to deny students access to counseling services as they fear the absence from the class will cause them to fall behind and reflect poorly on the teacher (Fox & Harding, 2005).

A counselor at Westside expressed “there’s a struggle between the structure of the academic process and the needs, the emotional needs, of these kids (Fox & Harding, 2005).” While teachers face a lack of training on the social and emotional needs of students the ones with this training (counselors) are often overburdened with paperwork and workload, if teachers view 30 students per class as too many then counselors may be especially encumbered. “At the time of the shooting at Heath, the counselor faced a student-to-counselor ratio of almost 600 to 1 (Fox & Harding, 2005).”

The role strain, role conflict and goal ambivalence between educators, administrators and faculty members all contribute to students in non-academic distress slipping through the cracks and potentially becoming school shooters. In conjunction with bullying, information loss, structural secrecy and the ‘clean slate’ principle, many signs and signals can be missed or flat out ignored leading to the educational institution becoming organizationally deviant, resulting in the potential for an increased chance in school violence (Fox & Harding, 2005) (Cornell & Mayer, 2010) (Swearer et al., 2010).

Researched Based Solutions

As H.L. Mencken wrote in 1920, “there is always a well-known solution to every human problem – neat, plausible, and wrong (Cornell & Mayer, 2010).” As described in the above section, there are many avenues that communities, administrators and the educational institutions

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themselves desire or initiate as they clamor for feelings of safety within schools. Clearly illustrated above are numerous common practices that research has shown to be ineffective, and often a massive waste of resources for minimal to no gain and in some cases negative gains. However, not all hope is lost, there are several researched based methods that have been found to be effective in combating school shootings. There are two-time frames to look at when discussing school shootings, 1) before the shooting, preventing it from ever happening in the first place and 2) during the shooting, what is effective to maximize survivability and subdue the shooter.

Lockdowns

There are two main schools of thought on what should be done by victims during an active shooter scenario, 1) traditional lockdown and 2) multi-option responses. In the traditional lockdown approach, individuals are instructed to lock interior doors, turning off lights, staying low to the ground, move to corners of the room away from doors and windows and remain silent until police arrive (Jonson, 2017). Of the 62 active shooter incidents that took place within educational institutions in the FBI's (2021) 20-year review from 2000-2019, a large majority, over 30%, of the shooters were restrained by citizens. This information is indicative of the second school of thought, multi-option responses.

They go by numerous names such as Run, Hide, Fight; Avoid, Deny, Defend; Alert, Lockdown, Inform, Counter, Evacuate; whatever the name they all contain three core concepts: 1) leaving the scene of the shooting, avoiding danger all together is the safest and best course of action 2) locking down and barricading the room if a safe escape is not feasible, unlike traditional lockdown whereby the doors are merely secured, multi-option adds barricading to encourage the shooter to move on to a different room; barricades do not need to last long as the

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average mass shooting (69%) lasts less than five minutes and finally 3) actively resisting the shooter, in every scenario there is one room or location where the shooting begins, for those caught in that initial area the first two options are not feasible and so multi-option responses instructs to fight for your life (Jonson, 2017) (FBI, 2020). While many schools and businesses have enacted multi-option responses, the research examining their true effectiveness is lacking, however we can look to previous shootings to glean their effectiveness.

During both the Columbine and Sandy Hook shootings, a substantial amount of the killings occurred with students taking a passive response by merely hiding and hoping the shooters did not find them, a scant few students fled even though the option was readily available and none fought back (Jonson, 2017). While it is not necessarily feasible to research these methods in a control environment there are events that have occurred that allow us to get a gleaning at the potential effectiveness of varying methods, the Virginia Tech shooting is one such case.

In the two classrooms that implemented simple lockdown procedures (did not barricade), the amount of lives loss was tragically great, of the 36 individuals present 22 were killed and eight were injured or more alarmingly said 83% were killed or injured (Jonson, 2017). Contrastly, the three rooms at Virginia Tech that utilized a multi-option approach (barricaded the rooms), of the 44 present a drastically reduced amount suffered tragedy with seven killed and nine wounded, or only approximately 36% suffering death or injury (Jonson, 2017).

Within this small subset of non-traditional research the point of a more active response versus a passive one is hammered home, of the three rooms 1) students lied on the floor holding the door shut with their feet, the shooter passed by this room and there were 0 fatalities or injuries 2) the second room first adopted simple lockdown, the shooter claimed five lives and

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injured another six, after this two students barricaded the door with their bodies and prevented the shooter from coming in a second time resulting in no further casualties 3) the final room enacting multi-option response a professor barricaded the door with his body and everyone save two were able to safely evacuate through the window (Jonson, 2017).

The Virginia Tech shooting is a unique ‘natural experiment’ that allows researchers to glean what methods work and those that do not. While further research needs to be conducted it is apparent in the slim data that is available that a more active multi-option response increases the likelihood of surviving an active shooting scenario. Instead of making the building a harder target, which has been shown to be defeatable, multi-option responses instead make the victims themselves hard, dynamic targets that are much more difficult for the shooter to victimize (Jonson, 2017).

Threat Assessment

While multi-option responses address an effective way to handle currently being in an active shooter scenario, the real question we should be asking takes from step one of multi-option, which is to avoid danger altogether. With that in mind the following describes the most seen reason behind active shooters within schools and how to potentially avoid having them happen altogether. While there is little research on the effective prevention of outside individuals coming on to school property and committing a mass shooting, to which they represent a small number, a large majority of educational environment shooters 56% and 17%, were teens or in their twenties respectively (U.S. Department of Justice Federal Bureau of Investigation, 2021).

From these numbers it is reasonable to assume (but further research is needed) that a wide margin of educational environment shooters are current or former students. With this in mind research and case study have pointed to one large common denominator for this type of

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acting out behavior, simply put bullying is a large part of why students resort to such heinous acts, that and their distress went unseen and unaddressed by faculty (Swearer et al., 2010) (Fox & Harding, 2005) (Cornell & Mayer, 2010) (Borum et al., 2010).

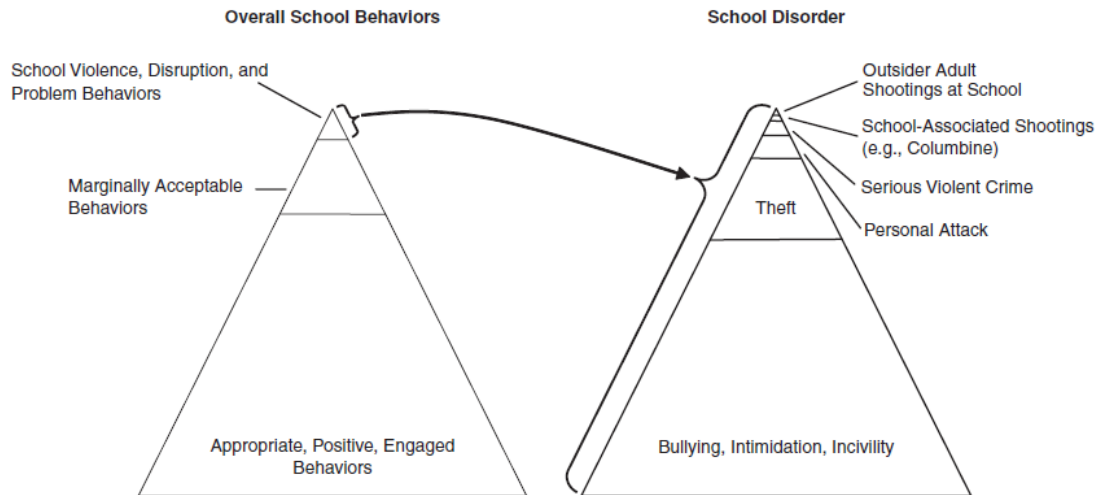


FIGURE 1. *Conceptual representation of school disorder compared with overall student behaviors. Adapted from "School violence and disruption" by M. J. Mayer, 2008, SAGE Encyclopedia of Educational Psychology, pp. 880-888, Thousand Oaks, CA: Sage.*

Over the past 15 years there has been a growing body of research illustrating that both bullies and their victims are at risk for both short and long-term adjustment difficulties, any student can make a threat, a minute number have a persistent violent intent that leads them to engage in the planning and execution of a school shooting (Borum et al., 2010). The FBI, U.S. Secret Service and the U.S. Department of Education suggest that schools use a threat assessment approach (Borum et al., 2010). Threat assessment differs from traditional profiling in that investigations are triggered by the student's own threatening or concerning behavior and not merely those who match a preset profile (Borum et al., 2010). This is advantageous in that it allows for the removal of previously stated biases and overrepresentation of minorities that happens at an alarming rate with zero-tolerance policies and traditional profiling (Borum et al., 2010) (Cornell & Mayer, 2010).

The threat assessment contains 11 guiding investigative questions which help assess the situation, if a student is believed to pose a threat than steps are taken to prevent the threat from being carried out, these steps may include notifying law enforcement, warning potential victims to the development of an intervention plan designed to resolve the conflict (Borum et al., 2010).

***Eleven Key Investigative Questions for Assessing Threats
of Targeted Violence in Schools***

1. What are the student's motives and goals?
 2. Have there been any communications suggesting ideas or intent to attack?
 3. Has the student shown inappropriate interest in any of the following?
 - a. school attacks or attackers
 - b. weapons (including recent acquisition of any relevant weapon)
 - c. incidents of mass violence (terrorism, workplace violence, mass murderers)
 4. Has the student engaged in attack-related behaviors?
 5. Does the student have the *capacity* to carry out an act of targeted violence?
 6. Is the student experiencing hopelessness, desperation, and/or despair?
 7. Does the student have a trusting relationship with at least one responsible adult?
 8. Does the student see violence as an acceptable—or desirable—or the only—way to solve problems?
 9. Is the student's conversation and "story" consistent with his or her actions?
 10. Are other people concerned about the student's potential for violence?
 11. What circumstances might affect the likelihood of an attack?
-

Note. Adapted from Fein, Vossekuil, Pollack, Borum, Modzeleski, and Reddy (2002).

Researchers at the University of Virginia developed a set of guidelines when addressing reports of student threats of violence in response to the FBI and Secret Service reports (Borum et

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al., 2010). These guidelines became known as the Virginia Threat Assessment model and were field tested in two different instances, the first was over a period of one year in 35 schools spanning K-12. Across the 35 schools there were 188 threats of violence, a majority (70%) were resolved through an explanation or apology with some resulting in disciplinary actions and counseling and seen as transient threats, the remaining 30% were deemed substantive and required protective action and the development and implementation of a plan addressing the underlying conflict, follow-up interviews revealed no threats were carried out (Borum et al., 2010). The second field test took place in Memphis City Schools, it examined 209 cases, of these 110 involved explicit threats to shoot, stab or kill someone as well as other threats to attack someone, commit a sexual assault or burn down or blow up the school. The Memphis field test highlighted the demographics of referred students, it found that 38% of the students were receiving special education services compared to the 12% baseline of the school and 71% had been academically retained at least one year (Borum et al., 2010).

The solutions threat assessment teams enacted included in-school support services, mental health counseling and psychiatric treatment, in 61% of cases the student was able to return to their previous school, only five students were not recommended for placement and only three were incarcerated, there were no reports of any of the threats being carried out across all sources of information posttest (Borum et al., 2010). Though both field tests show the positive results that threat assessment can obtain, there is need for more rigorous and randomized controlled design as there is an absence of comparison groups (Borum et al., 2010). Students exposed to the Virginia Threat assessment guidelines reported a reduction in bullying over the past 30 days, increased willingness to seek help with bullying and threats of violence and a more positive perception of the school climate, additionally schools utilizing these guidelines had

fewer long-term suspensions during the 2006 school year than schools implementing other assessment approaches (Borum et al., 2010).

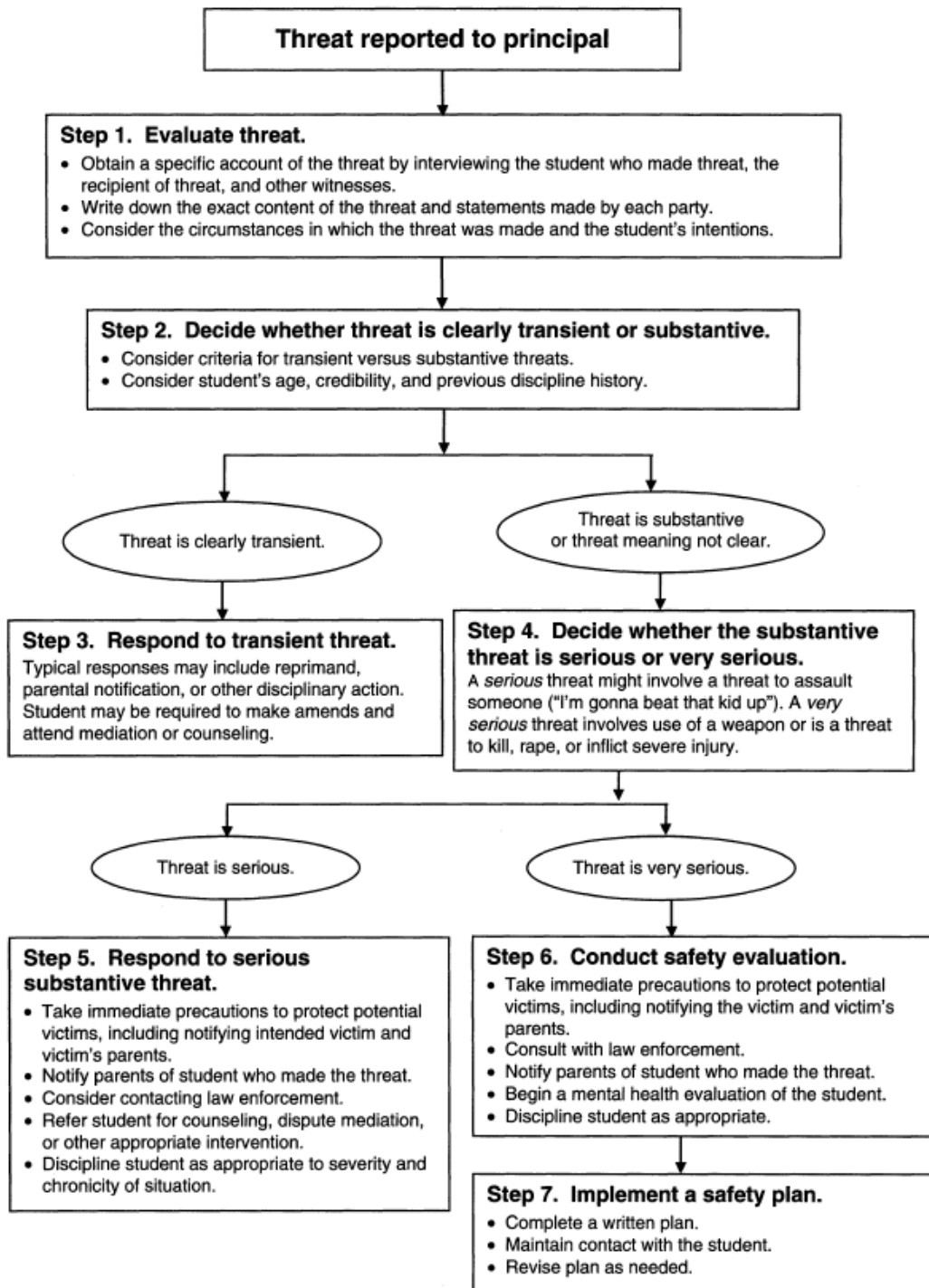


FIGURE 2. Decision tree for Virginia threat assessment guidelines. Adapted from Cornell and Sheras (2006), with permission from Sopris West Educational Services.

Conclusions and Recommendations

Though there is an abundant amount of research to be conducted the current knowledge base does allow for several enlightening conclusions to be made, firstly schools need to be aligned on their purpose and that purpose needs to be broader than mere academic instruction (Borum et al., 2010) (Cornell & Mayer, 2010) (Fox & Harding, 2005). Though this concept seems fairly new, taking a cross-disciplinary view of school shootings as more than the singular event and instead dissect the overall order and atmosphere of the school seems to allow for superior solutions to be discovered and aid in disrupting and reducing the chances of an active shooter event to be enacted by a student in the first place (Cornell & Mayer, 2010) (Borum et al., 2010) (Fox & Harding, 2005). Casting a wider view and backtracking from the shooting event itself to understand how the student arrived at a mass killing as their only option has proven helpful. Schools need to focus on addressing the emotional, social and mental wellbeing of students in conjunction with academics, which creates happier school atmospheres, better performing and a reduction in school dread (Cornell & Mayer, 2010) (Fox & Harding, 2005).

Many programs implemented to prevent school shootings have so far been proven to either provide a net neutral or in some cases negative effects (Jonson, 2017). Most methods are enacted out of emotion in reaction to the most recent media sensationalized event, little to no examination is given to best-practices or the current research, resulting in wasted resources that many districts do not have (Jonson, 2017) (Borum et al., 2010). More deference to current research is needed when administrators and policy makers decide what methods to implement in response to school shootings.

Of the numerous methods implemented current research concludes that two main methods show promise, the Virginia Threat Assessment and multi-option responses (Jonson,

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2017) (Borum et al., 2010). The Virginia Threat Assessment aims to address threats of violence before they ever become an event and keep students in school. A secondary benefit is that it requires an actual threat to be reported which aids in removing disturbing biases seen in zero-tolerance policies (Borum et al., 2010). This approach also encourages communication between faculty members and students which can increase students felt sense of safety and improve school atmosphere.

Research shows that students often are aware of concerning behaviors before faculty members are, as was the case in the Ruby Middle School and Arapahoe High School shootings (Safe Havens International, 2016) (Idaho School Safety and Security Program, 2021). Often students are made aware through social media as students may share their plans on social media and other disturbing content before executing the act (Idaho School Safety and Security Program, 2021). Implementing confidential tiplines that may be utilized by both students and faculty could help reduce the likelihood of information loss (Fox & Harding, 2005) (Mayer & Furlong, 2010) (Idaho School Safety and Security Program, 2021) (Safe Havens International, 2016) (Erickson, 2001). The establishment of a social media threat detection system in conjunction with local police or a fusion center could further enhance early detection of troubled students (Idaho School Safety and Security Program, 2021).

Multi-option responses like Run. Hide. Fight. seek to provide victims with tools to survive an ongoing active shooter event. Their strength is in their adaptability to the specific situation you may find yourself in at any given point during an active shooting event (FBI, 2020) (Idaho School Safety and Security Program, 2021). Though there is little case study on this, after action reports such as those on the Virginia Tech shooting provide a unique room-by-room observations of differing methods allowing for conclusions to be made on what is effective based

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upon the casualties suffered while implementing varying methods for survival (Jonson, 2017). Other reports, such as the Ruby Middle School and Arapahoe High School shootings, also recommend multi-option responses and that teachers and students should be trained in situational awareness and be trained in tactical decision making (Safe Havens International, 2016) (Idaho School Safety and Security Program, 2021).

While both methods seem viable in reducing the likelihood of school shootings and increasing their survivability, it must be acknowledged that there is no more research that needs to be conducted across differing schools and environments. With regard to the Virginia Threat Assessment, many teachers and faculty members are already overwhelmed with class sizes, goal conflicts and ideologies, the utilization of concepts found in the Incident Command System (ICM) and Whole Community approach found within the Emergency Management field may assist in filling in the gaps of resource scarcity and role strain (U.S. Department of Homeland Security Federal Emergency Management Agency, 2018) (U.S. Department of Homeland Security Federal Emergency Management Agency, 2019) (Erickson, 2001).

These methods have been utilized in numerous successful emergency management plans by districts across the nation in preparation for such disasters (Safe Havens International, 2016) (Erickson, 2001). While it is noble to call for an end to these painful events and regardless that there are several proven methods to reduce the likelihood of these rare events and increase survivability in their midst, “there are no absolute solutions to this complex and painful problem. Just as it has not been possible for governments to end mass casualty violent incidents, terrorism, and wars, putting an end to school violence is a noble and desirable but unrealistic goal (Safe Havens International, 2016).”

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