

School Active Shooting Prevention and Response in the USA: Toward Policy Integration in Philippine Educational Institutions

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Abstract

Three rare but tragic active shooter incidents in Philippine schools highlight the vital need for evidence-based prevention and response policies. Once seen as a U.S.-specific issue, school shootings are now an emerging concern in the Philippines. This study uses qualitative document analysis and thematic comparison to explore U.S. prevention strategies, behavioral threat assessment models, Child Access Prevention (CAP) firearm laws, and adaptable emergency response procedures for potential implementation in the Philippines. Findings show that reactive actions, such as target hardening and armed security, have limited effectiveness and may create restrictive, anxiety-inducing environments. In contrast, behavioral threat assessment, anonymous tip systems, and standardized crisis protocols (such as ALICE) are more effective at reducing casualties, identifying warning signs, and supporting safer campuses. The study recommends a policy integration plan for the Department of Education (DepEd) and the Commission on Higher Education (CHED) to shift from reactive to proactive strategies to prevent school active shootings.

Introduction

School shootings have shifted from being mainly a U.S. issue to a global concern. The first major incident, at Columbine High School on April 20, 1999, resulted in 13 deaths and set an example for future attacks defined by planning and preparation. From June to September 2026, the Philippines experienced several tragic school violence incidents: On June 22, two students at San Jose National High School in Tacloban City killed three students before being apprehended. On August 18, a junior high student at Ateneo de Zamboanga University - Kreutz Campus shot a classmate and injured 23 others before taking his own life. On September 18, a Grade 9 student at Banga National High School used his father's handgun to shoot ten students, causing two fatalities and additional injuries before also taking his own life.

School rampage shootings are a highly visible form of targeted violence that disrupts education and raises public concern. As these incidents have increased globally, many countries have adopted various prevention and reaction strategies. In the U.S., efforts have focused on situational crime prevention and physical security measures, such as locked doors, visitor logs, ID badges, surveillance, metal detectors, and armed security (Borum et al., 2010; Jonson, 2017). However, studies show a gap between public views and actual data: while public fear spurs demand for more security, evidence shows these responsive measures have limited effectiveness and may negatively impact student health (Addington, 2009; Borum et al., 2010; Jennings et al., 2011; Jonson, 2017; Reeping et al., 2021; Rocque, 2012). Data from the American School Shooting Study (TASSS) of 652 K–12 incidents (1990–2016) show mass-victim massacres are rare (less than 3%), with over 56% of intentional firearm incidents resulting in no deaths and often occurring outside school hours or perimeter zones (Freilich et al., 2022).

Rather than relying on physical barriers or demographic profiling (Borum et al., 2010; Modzeleski & Randazzo, 2018; Vossekuil et al., 2002), research stresses addressing developmental courses and

behavioral warning signs before incidents occur. Levin and Madfis's (2009) Cumulative Strain Theory explains how ongoing and acute stresses can lead to violence, with studies showing that 77% to 81% of offenders display warning behaviors, such as sharing their plans in advance (Reeping et al., 2021; Vossekul et al., 2002). Modern prevention strategies therefore focus on evidence-based behavioral interventions, including threat assessment models like the Virginia Student Threat Assessment Guidelines (Borum et al., 2010; Cornell et al., 2009; Fein et al., 2002), teacher training in safety and mental health (National Center for Education Statistics, 2024), and statutory measures such as Child-Access Prevention (CAP) laws and secure firearm storage, which considerably reduce youth firearm injuries (Grossman et al., 2005; Miller et al., 2026; Monuteaux et al., 2019; Wippel et al., 2026). When prevention fails, schools use active shooter protocols such as "Run, Hide, Fight," ALICE, or Avoid-Deny-Defend to guide staff and students to flee, barricade, or confront the attacker (Jonson, 2017; Reeping et al., 2021).

While U.S. research on school shooting prevention—including physical security, threat assessment, CAP laws, and crisis protocols—is extensive (Borum et al., 2010; Freilich et al., 2022; Jonson, 2017; Reeping et al., 2021), there is a significant gap in adapting these strategies to Philippine schools. Current safety efforts in the Philippines focus mainly on natural disasters and general campus security, with limited planning for proactive active shooter prevention. This study examines U.S. strategies to inform practical policy development for Philippine educational institutions.

Literature Review

School rampage shootings are a profoundly tragic form of targeted school violence that shatters the learning setting and generates widespread public concern (Borum et al., 2010; Rocque, 2012). Following high-profile events such as Columbine High School (1999), Virginia Tech (2007), Sandy Hook Elementary School (2012), Marjory Stoneman Douglas High School (2018), and Robb Elementary School (2022), societal focus on school safety has escalated dramatically (Jonson, 2017; Reeping et al., 2021). Scholars point out the need to distinguish empirical trends in school violence from public fear driven by media salience (Burns & Crawford, 1999; Rocque, 2012; Jonson, 2017). Although mass-victim attacks have become more frequent in recent decades than in the 20th century (Freilich et al., 2022; Katsiyannis et al., 2018), overall student victimizations and youth violent crime have declined significantly since the mid-1990s (Borum et al., 2010; Freilich et al., 2022).

Levin and Madfis (2009) developed Cumulative Strain Theory (CST). This five-stage model explains how developmental strains lead to school violence: chronic strain, uncontrolled strain, acute strain, planning, and the event (Global Psychiatry Archives, 2022; Rocque, 2012). Chronic strain includes long-term issues including frustration, rejection, bullying, or family conflict, affecting up to 63% of offenders, with nearly half in negative home environments. Uncontrolled strain involves intense social isolation and affects 26% of offenders. Acute strain results from recent triggers, such as loss or tragedy, within six months. Planning involves preparation and rationalization over days or years. The event is the act of violence, facilitated by weapon access, skill, and lack of guardianship (Global Psychiatry Archives, 2022).

Meanwhile, open-source data collection has expanded understanding of school firearm violence in the U.S. A study by Freilich et al. (2022), introducing The American School Shooting Study (TASSS), analyzed 652 incidents from 1990 to 2016. It categorized incidents as 473 intentional shootings, 102 suicides, 73 accidental discharges, and 4 legally justified shootings. It found that mass-victim massacres are rare outliers within school violence. Over 56% of intentional incidents led to no fatalities, mostly occurring outside school, like parking lots, during non-school hours, frequently involving non-students in disputes or gang conflicts (Freilich et al., 2022).

Federal research agrees that demographic or psychological profiling is ineffective for identifying school violence offenders (Borum et al., 2010; Modzeleski & Randazzo, 2018; O'Toole, 2000; Vossekul et al., 2002). The Safe School Initiative (SSI) by the U.S. Secret Service and Department of Education found no reliable profile of a school attacker (Vossekul et al., 2002, 2004). Checklists often produce false positives and can unfairly target innocent youths (Borum et al., 2010; O'Toole, 2000). Instead, research stresses the importance of spotting behavioral leakage and pre-attack communication (Meloy & O'Toole, 2011; Modzeleski & Randazzo, 2018). Over 81% of targeted school violence incidents involved attacker communication of plans to others before the event (Reeping et al., 2021; Vossekul et al., 2002, 2004). Analyses from 2008–2017 show all perpetrators displayed concerning behaviors beforehand, with 77% sharing explicit plans (Reeping et al., 2021). Attacks are usually planned, with offenders obtaining weapons and preparing sites (Borum et al., 2010; Modzeleski & Randazzo, 2018; Vossekul et al., 2002).

After high-profile incidents, policy responses mainly focus on physical security and target-hardening strategies based on Situational Crime Prevention (Jonson, 2017; Rocque, 2012). These include armed School Resource Officers (SROs), metal detectors, tight access control, and emergency drills (Borum et al., 2010; Jonson, 2017; Reeping et al., 2021). However, many security tactics lack evidence of effectiveness and can harm school climate and student health (Addington, 2009; Jonson, 2017; Reeping et al., 2021). After over \$45 million in federal grants, the share of U.S. public schools with armed School Resource Officers (SROs) rose from 13% in 1994 to over 51% in 2014 (Addington, 2009; Jonson, 2017; Katsiyannis et al., 2018). Proponents say armed SROs deter crime and provide a quick response, but studies show they do not substantially reduce violent crime or stop mass shootings (Jonson, 2017; Na & Gottfredson, 2013). Incidents like Columbine and Virginia Tech happened despite armed officers on campus (Jonson, 2017; Madfis, 2016). Moreover, armed officers may increase student anxiety and lead to more disciplinary actions for minor misconduct (Addington, 2009; Jonson, 2017; Reeping et al., 2021). Over 90% of U.S. schools use security controls such as locked doors, check-ins, and visitor IDs (Jonson, 2017). However, studies show these measures do not significantly reduce serious violent crime (Jennings et al., 2011; Jonson, 2017). Authorized students and staff can enter, but outside perpetrators may bypass locks (Jonson, 2017; Reeping et al., 2021).

Stationary metal detectors are costly and often ineffective, as motivated perpetrators can bypass them (Hankin et al., 2011; Jonson, 2017). Incidents like Red Lake High (2005) illustrate this. Crisis protocols have shifted from passive lockdowns to frameworks like ALICE and Avoid-Deny-Defend, but drills must be conducted carefully to avoid fear and anxiety (Jonson, 2017; Reeping et al., 2021). Unlike physical

target hardening, behavioral threat assessment is an evidence-based approach to prevent school violence (Borum et al., 2010; Cornell et al., 2009; Modzeleski & Randazzo, 2018). Based on U.S. Secret Service protocols, the federal model delivers a structured way to identify, evaluate, and support possible threats (Fein et al., 2002; Modzeleski & Randazzo, 2018; Vossekuil et al., 2002). The federal threat assessment model involves multidisciplinary school teams, including administrators, psychologists, counselors, social workers, and law enforcement (Modzeleski & Randazzo, 2018). Threat assessment differs from zero-tolerance discipline; it focuses on addressing problems and providing support rather than immediate expulsion (Borum et al., 2010; Modzeleski & Randazzo, 2018). When a student shows concerning behavior or makes a threat, the team carries out an inquiry (Borum et al., 2010; Fein et al., 2002).

To operationalize threat assessment in schools, Cornell et al. (2004, 2009) created the Virginia Student Threat Assessment Guidelines, using a decision tree to distinguish between transient threats (frustration expressed that can be resolved without protection) and substantive threats (serious intent requiring safety plans and support) (Borum et al., 2010; Cornell et al., 2004). Field evaluations in hundreds of schools show that using these guidelines reduces suspensions, resolves conflicts, lowers bullying, and maintains safety (Borum et al., 2010; Cornell et al., 2009; Modzeleski & Randazzo, 2018). Threat assessment also integrates with MTSS, PBIS, and Red Flag laws (Alonge & Craig, 2020; Katsiyannis et al., 2018; Reeping et al., 2021). Establishing universal tier-1 supports, targeted tier-2 mental health interventions, and tier-3 management plans allows schools to address distress, promote bystander reporting, and prevent violence.

Although active school shootings have been viewed as an American issue, high-profile incidents in European countries such as Finland, Germany, Greece, Spain, and Russia have prompted more research on school violence in Europe (Böckler et al., 2013; Lindgren & Thodelius, 2017; Stetsenko et al., 2022). Studies show that sociological models, including Newman et al.'s (2004) five conditions (social marginalization, psychosocial vulnerabilities, cultural script access, staying under the radar, and weapon access) and Jack Levin and Eric Madfis's Cumulative Strain Theory, explain European cases (Lindgren & Thodelius, 2017; Stetsenko et al., 2022). Research finds that European offenders commonly face severe social marginalization, such as peer bullying, romantic rejection, masculinity issues, and conflicts with school authorities, along with psychosocial problems such as depression, suicidal thoughts, and crises (Lindgren & Thodelius, 2017; Sommer et al., 2014; Stetsenko et al., 2022).

European literature examines how transnational 'cultural scripts,' online shooting subcultures, and global copycat behaviors influence societies (Böckler et al., 2013; Lindgren & Thodelius, 2017; Stetsenko et al., 2022). Studies show European shooters often adopt nihilistic or misanthropic views, inspired by international 'anti-heroes,' mimicking their clothing, manifestos, and tactics, like those of Columbine or Anders Breivik (Lindgren & Thodelius, 2017; Stetsenko et al., 2022). Potential attackers sometimes hint at plans through pre-attack 'leakage,' sharing clues such as violent writings, manifestos, and photos of weapons on forums, social media, and messaging apps like Telegram (Lindgren & Thodelius, 2017;

Stetsenko et al., 2022). Sadly, these warning signs often go unnoticed or are dismissed as rebellious teenage jokes.

Finally, European countries' policy responses and prevention strategies vary, reflecting different legal and state approaches (Stetsenko et al., 2022). After major incidents, several nations, including Russia, enacted stricter firearm laws and increased oversight. European governments emphasize digital surveillance, requiring teachers to monitor social media and limit online anonymity (Stetsenko et al., 2022). However, many educational systems encounter systemic problems such as lack of mental health services, underpaid staff, and poor violence prevention (Stetsenko et al., 2022). Scholars argue that effective school-based violence prevention needs multidisciplinary threat assessments, anti-bullying programs, and behavioral supports, rather than scapegoating video games or surveillance (Böckler et al., 2013; Lindgren & Thodelius, 2017; Stetsenko et al., 2022).

Methodology

This study uses qualitative document analysis to examine global strategies for preventing and responding to school shootings. The study retrieved peer-reviewed articles from the Scopus database, focusing on high-impact literature on school violence, active-shooter responses, and educational security policy. The literature search targeted journals in criminology, public safety, and educational policy, enabling comparisons of models in the United States and Western nations. Data collection encompassed evidence on access control, security infrastructure, anonymous tip lines, crisis protocols, threat assessments, and mental health interventions. The study used comparative thematic analysis to evaluate national frameworks and provide policy guidance recommendations for the Philippine education system. The strategies reviewed included proactive preventive methods such as behavioral monitoring, community risk identification, and firearm storage awareness, as well as reactive emergency responses such as active-shooter drills and law enforcement protocols.

Results

School Active Shooting Prevention Strategies in the United States

Empirical Basis of School Active Shooting Prevention Strategies

Active school shootings in the United States pose a major public safety and public health challenge, commanding intense national media attention and legislative debate (Alonge & Craig, 2020; Jonson, 2017; Reeping et al., 2021). High-profile school shootings have repeatedly broken the presumption of security within school environments, prompting administrators and lawmakers to enact preventive safety measures rapidly (Borum et al., 2010; Jonson, 2017; Reeping et al., 2021; Rocque, 2012). However,

criminological research stresses a persistent divergence between popular perception and empirical reality regarding school firearm violence (Borum et al., 2010; Jonson, 2017; Rocque, 2012).

To establish an objective baseline for school gun violence, the American School Shooting Study (TASSS) created a database of 652 K–12 school shootings in the US from 1990 to 2016 (Freilich et al., 2022). Disaggregation showed 473 (72.5%) were intentional shootings, 102 (15.6%) self-directed incidents, 73 (11.2%) accidental discharges, and 4 legally justified (Freilich et al., 2022). Data show most intentional school gun violence is nonfatal: 56% had no fatalities, with about eight fatal incidents annually (Freilich et al., 2022). Mass shootings causing three or more deaths were rare, less than 3% of intentional incidents (Freilich et al., 2022). Additionally, 58.1% of intentional shootings happened outside the school (e.g., parking lots), 56.5% outside school hours, and 42.3% involved non-student offenders linked to community or gang disputes (Freilich et al., 2022).

Physical Target Hardening and Armed Security

Following public active shooting tragedies, school districts across the United States heavily implemented situational crime prevention strategies intended to harden physical facility perimeters and lessen environmental opportunities for violent crime (Borum et al., 2010; Jonson, 2017; Reeping et al., 2021; Rocque, 2012). Physical target hardening in United States K–12 schools involves structural and technological modifications grounded in situational crime prevention principles designed to delay or impede an active shooter's access (Jonson, 2017). Common hardening interventions include access-controlled single points of entry, ballistic glass, electronic surveillance, bullet-resistant doors, and automated lockdown systems (Jonson, 2017). Another widely adopted countermeasure is deploying armed security, including armed School Resource Officers (SROs), specialized security guards, and armed school personnel, to provide a rapid tactical response during an active shooter event (Jonson, 2017; Peterson et al., 2021).

Behavioral Threat Assessment

Given the limits and potential harms of physical target hardening, behavioral threat assessment has become the primary evidence-based approach for preventing active shootings (Borum et al., 2010; Fein et al., 2002; Modzeleski & Randazzo, 2018; Vossekuil et al., 2004). Created through a collaboration between the U.S. Secret Service National Threat Assessment Center (NTAC) and the U.S. Department of Education after the influential Safe School Initiative (SSI), which examined 37 targeted school attacks involving 41 offenders, this federal threat assessment model uses protective intelligence techniques in K–12 settings (Fein et al., 2002; Modzeleski & Randazzo, 2018; Vossekuil et al., 2004).

Anonymous Threat-Reporting Systems

Anonymous threat-reporting systems, such as tip lines and mobile apps, have become prominent proactive tools for identifying threats. According to NCES data from 2021–2022, 62.4 percent of K–12 schools used a formal anonymous system, such as online submissions, hotlines, or drop-box writing (NCES, 2022). A 2022 randomized controlled trial involving over 700 middle school students in Miami showed that schools with such systems experienced fewer violent incidents, especially when they responded quickly and effectively to tips (Hsieh et al., 2022). Students also reported on their feelings of safety, school connectedness, and trust in classmates. The system seemed to help prevent declines in these perceptions that were seen in schools without such systems (Hsieh et al., 2022).

Safety and Security Training for Teachers

During 2021–22, most public schools and districts trained teachers and aides in school safety and security. Specifically, 93% taught safety procedures, such as emergency response (National Center for Education Statistics, 2024). Additionally, 88% trained staff on schoolwide discipline policies related to issues like cyberbullying, bullying, violence, and substance use. About 87% received training to identify at least one behavior associated with safety or discipline concerns, and 81% focused on classroom management strategies. Beyond procedural training, most schools also taught intervention methods to address safety-related student situations effectively. For example, 84% trained staff in positive behavioral interventions, 74% in crisis prevention and response, and 67% in strategies for intervention and referral for students exhibiting mental health symptoms (National Center for Education Statistics, 2024).

Secured Gun Storage and Child-Access Prevention (CAP) Laws

Approximately 6.7 million American children live in homes with at least one loaded and unlocked firearm (Miller et al., 2026). Laws requiring secure storage and CAP laws hold gun owners responsible when children can or do access unsecured firearms. Since most school shooters under 18 obtain guns from their homes, secure storage is important for preventing school gun violence. Research shows that households locking both firearms and ammunition have a 78% lower risk of self-inflicted firearm injuries and an 85% lower risk of unintentional injuries among children, compared to households that do not lock either (Grossman et al., 2005). Another study suggests that if half of the households with children and at least one unlocked gun locked all their guns, about one-third of youth gun suicides and accidental deaths could be avoided, possibly saving 251 lives per year (Monuteaux, Azrael, & Miller, 2019). On the other hand, restrictive state firearms laws are significantly associated with fewer school shootings without evidence of increasing violence, supporting firearm regulation as an effective intervention for youths (Wippel, Haynie, & Riedman, 2026).

Active Shooter Crisis Procedures

Since no preventive model can ensure complete safety, emergency response procedures are vital to increasing victims' survival chances during an active shooter incident (Jonson, 2017; Reeping et al., 2021). Approximately 95% of K–12 public schools conduct active shooter drills annually (Reeping et al., 2021). Traditional lockdown protocols instruct occupants to lock doors, switch off lights, close blinds, stay quietly in a concealed corner, stay low, and remain passive until law enforcement declares the area safe (Jonson, 2017; Reeping et al., 2021). To tackle the limitations of passive hiding, multi-response protocols like ALICE (Alert, Lockdown, Inform, Counter, Evacuate), Run/Hide/Fight, and Avoid/Deny/Defend provide adaptable, situation-dependent responses based on proximity to the threat (Jonson, 2017; Reeping et al., 2021). Occupants are trained to evacuate immediately if a safe, clear escape route exists. Removing potential victims from the scene prevents the attacker from having targets. When immediate evacuation is unsafe because of the threat's proximity, occupants lock doors and create solid physical barriers with heavy desks, tables, cabinets, and chairs. Since 69% of active shooter events end within five minutes, barricading makes classrooms harder targets, forcing shooters to bypass the room. As a last resort, when a shooter enters an occupied space, occupants are encouraged to distract, disrupt, and physically incapacitate the attacker with thrown objects and collective resistance (Jonson, 2017).

School Active Shooting Reaction Strategies in the United States

Evolution of Law Enforcement Reaction Protocols

In active school shootings, immediate emergency response is essential (Jonson, 2017; Reeping et al., 2021). After Columbine in 1999, law enforcement tactics shifted. Before, officers established a perimeter and waited for SWAT to enter (Alonge & Craig, 2020; Jonson, 2017). Criminological studies showed this allowed assailants to control the interior for about 47 minutes (Jonson, 2017; Modzeleski & Randazzo, 2018). As a result, agencies now require officers to form contact teams and enter immediately to engage the threat (Alonge & Craig, 2020; Modzeleski & Randazzo, 2018). Most shootings resolve in under 10 minutes, often before SWAT arrives, making quick action vital to reduce casualties (Jonson, 2017; Reeping et al., 2021).

Traditional Passive Lockdown of Schools

At the institutional level, K-12 schools have consistently relied on traditional passive lockdown procedures for emergency response planning, with about 95% of public schools in the U.S. following this approach (Jonson, 2017; Reeping et al., 2021). These protocols direct classroom teachers and students to lock interior doors immediately, turn off lights, draw shades, hide from sightlines, gather silently in hidden spots or under desks, and remain still until emergency responders arrive. Occupants are also expected to remain passive and sheltered in place until law enforcement officials officially clear the building and declare the area safe (Jonson, 2017; Reeping et al., 2021).

Multi-Option Active Response Methods

To overcome the major limitations of passive hiding, many American school districts have adopted multi-option active response methods like ALICE (Alert, Lockdown, Inform, Counter, Evacuate), Run/Hide/Fight, and Avoid/Deny/Defend (Jonson, 2017; Reeping et al., 2021). These strategies, based on situational crime prevention principles, replace rigid passivity with flexible, situational decision-making that depends on the threat's proximity (Jonson, 2017; Reeping et al., 2021). They include three main tactical responses: Evacuation / Fleeing (Run), where occupants far from the threat evacuate using safe routes to reduce target availability and casualty risk; Enhanced Barricading (Hide / Deny), where occupants lock doors and erect physical barriers with furniture to turn classrooms into hard targets; and Countering / Active Resistance (Fight), where, as a last resort, occupants actively attempt to incapacitate the attacker by throwing objects, creating noise, and resisting physically (Jonson, 2017).

Deployment of Law Enforcers and Inter-Agency Coordination

The deployment of armed law enforcement personnel and School Resource Officers (SROs) is a primary on-site active response component in over 51% of U.S. public schools (Jonson, 2017; Katsiyannis et al., 2018). Proponents argue that armed SROs provide immediate tactical deterrence and rapid crisis response (Jonson, 2017; Rocque, 2012). Furniture barriers can turn classrooms as hard targets; Countering/Active Resistance (Fight) involves occupants, as a last resort, actively attempting to incapacitate the attacker by throwing objects, creating noise, and physically resisting (Jonson, 2017).

Post-Incident Recovery and Mental Wellness Support

To manage both the immediate as well as the long-lasting impacts of a school shooting, federal and local policies implement emergency response protocols and psychological recovery plans (Federal Emergency Management Agency, 2021). Local authorities follow standardized Family Reunification Procedures to safely move students from the scene to a designated off-site location to reunite them with guardians (The "I Love U Guys" Foundation, 2021). Furthermore, to support financial and psychological healing, the U.S. Department of Education provides the Project SERV (School Emergency Response to Violence) grant, which offers federal funding to affected school districts for crisis counseling, trauma-informed mental health services, and temporary security measures (U.S. Department of Education, 2022).

Discussion

School shootings have evolved from being mainly an American concern to becoming a major global security threat. In the Philippines, the tragic series of school firearm incidents from June to September 2026 challenged previous beliefs about the safety of Philippine schools. Traditionally, Philippine school safety planning has focused mainly on natural disasters like typhoons, earthquakes, and floods. The lack of uniform procedures for active shooter situations led to confusion and chaos among school administrators, teachers, and law enforcers during recent incidents. Therefore, incorporating empirical research, criminological theories, and proven procedures from the United States offers a model for policy

integration within the Department of Education (DepEd) and the Commission on Higher Education (CHED).

After high-profile tragedies, policy responses mainly focus on physical security measures based on Situational Crime Prevention. These include access-controlled entry points, ballistic glass, metal detectors, CCTV surveillance, and armed security guards (Addington, 2009; Borum et al., 2010; Jonson, 2017; Reeping et al., 2021; Rocque, 2012). Over 90% of U.S. public schools have locked-door policies, and more than half employ armed School Resource Officers (SROs), supported by \$45 million in federal grants (Addington, 2009; Jonson, 2017; Katsiyannis et al., 2018; NCES, 2022). However, rigorous studies show that such physical measures have little to no statistical effect in preventing shootings or reducing campus violence (Jennings et al., 2011; Jonson, 2017; Na & Gottfredson, 2013; Reeping et al., 2021). Since most attackers are current or former students with legitimate access, hardware alone cannot stop internal threats, and shooters often bypass barriers by shooting out windows or pulling fire alarms (Jonson, 2017; Reeping et al., 2021; Rocque, 2012). Also, armed SROs failed to prevent or deter mass casualties during major incidents like Columbine, Virginia Tech, and Marjory Stoneman Douglas (Alonge & Craig, 2020; Jonson, 2017; Madfis, 2016; Rocque, 2012). Heavy physical security can cause harmful side effects, turning schools into restrictive environments that increase student anxiety, weaken trust, and criminalize minor infractions (Addington, 2009; Borum et al., 2010; Jonson, 2017; Reeping et al., 2021).

Unlike reactive target hardening or flawed demographic profiling, behavioral threat assessment is the leading evidence-based approach to prevent active shootings (Borum et al., 2010; Fein et al., 2002; Modzeleski & Randazzo, 2018; O'Toole, 2000; Vossekuil et al., 2002, 2004). This model, developed collaboratively by the U.S. Secret Service National Threat Assessment Center (NTAC) and the U.S. Department of Education after the Safe School Initiative (SSI), employs multidisciplinary teams to evaluate whether an individual's behavior suggests they might be headed toward violence (Fein et al., 2002; Modzeleski & Randazzo, 2018; Vossekuil et al., 2002, 2004). Threat assessment functions as a supportive, problem-solving method that contrasts with punitive zero-tolerance policies, aiming to address personal crises and connect at-risk students with mental health resources (Borum et al., 2010; Modzeleski & Randazzo, 2018).

Field tests of the Virginia Student Threat Assessment Guidelines across hundreds of schools confirm that standardized threat assessment guidelines effectively distinguish transient verbal threats from substantive violent intent, resolving over 70% of cases without long-term school exclusion (Borum et al., 2010; Cornell et al., 2004, 2009; Modzeleski & Randazzo, 2018). Schools that implement threat assessment report lower bullying rates, fewer long-term suspensions, improved school climate, and greater student willingness to report threats (Borum et al., 2010; Cornell et al., 2009; Modzeleski & Randazzo, 2018). Furthermore, integrating anonymous threat-reporting systems (used in 62.4% of U.S. schools) allows students to report behavioral leakage safely; randomized controlled trials show that anonymous tip lines significantly reduce campus violence while preserving students' sense of safety and trust in institutions (Hsieh et al., 2022; NCES, 2022).

Since no preventive model can ensure complete security, active response procedures are crucial for victim survival during an active shooting (Jonson, 2017; Reeping et al., 2021). After the 1999 Columbine High School attack, law enforcement tactics shifted from old perimeter containment methods to a strategy of immediate contact-team entry aimed at locating and neutralizing the threat (Alonge & Craig, 2020; Jonson, 2017; Modzeleski & Randazzo, 2018). Active shooting incidents are typically brief, so first responders need quick tactical responses, and occupants need prompt protective actions (Jonson, 2017; Reeping et al., 2021).

At the institutional level, 95% of U.S. public schools conduct active shooter drills, mainly using passive lockdowns like locking doors, turning off lights, and gathering quietly (Jonson, 2017; Reeping et al., 2021). Research highlights flaws in passive hiding: during shootings in places like Columbine, Red Lake, and Sandy Hook, passive strategies create small, immobile targets, increasing lethality. To reduce risks, active response plans such as ALICE, Run/Hide/Fight, and Avoid/Deny/Defend promote flexible, situation-based actions (Jonson, 2017; Reeping et al., 2021). These include: (1) Evacuation (Run) when exits are available; (2) Barricading (Hide/Deny) with furniture; and (3) Counter (Fight) as a last resort to distract the attacker (Jonson, 2017).

Empirical data from the 2007 Virginia Tech shooting natural experiment in Norris Hall supports the greater effectiveness of multi-option active responses. In two classrooms using traditional passive lockdowns without barricades, the gunman entered freely, causing 22 deaths and 8 injuries out of 36 occupants—an 83.3% casualty rate (Jonson, 2017). Conversely, in three classrooms where occupants used active responses, there were only 7 deaths among 44 occupants, a 15.9% casualty rate, with no casualties in rooms that were fully barricaded. Researchers stress that active shooter drills should be age-appropriate and trauma-informed, involving school psychologists, to avoid emotional harm to students (Reeping et al., 2021).

Research Limitations and Implications

A key limitation of this study is its dependence on qualitative document analysis and open-source database monitoring, which can be affected by biases in media reporting, incomplete psychological records, or unrecorded nonfatal firearm discharges. Furthermore, although the comparative thematic analysis integrates extensive U.S. literature, applying these models to the Philippines reveals notable infrastructural, socioeconomic, and institutional differences. Specifically, Philippine educational institutions often face overcrowding, with large classes (40–50 students), open-air structures lacking solid perimeter corridors, and a significant shortage of qualified mental health professionals such as guidance counselors and licensed school psychologists. Additionally, establishing multidisciplinary threat assessment teams in these resource-limited settings may face operational challenges due to high counselor workloads and limited clinical referral networks.

The findings suggest that the Department of Education (DepEd) and the Commission on Higher Education (CHED) in the Philippines should move beyond reactive, physical targets like metal detectors,

guards, and visitor logs. These measures have limited proven effectiveness and can foster restrictive, anxious school environments. Instead, schools should establish multidisciplinary Behavioral Threat Assessment Teams, similar to models used by the U.S. Secret Service and Virginia Guidelines, to evaluate behavioral signs indicative of potential violence without relying solely on exclusionary zero-tolerance policies. Additionally, schools should implement anonymous national threat-reporting tools, such as mobile apps, to gather early warning information from bystanders. They should replace passive lockdowns with trauma-informed, active response options like ALICE or Run, Hide, Fight, and support legislation for safe-storage laws (Child-Access Prevention) to prevent youth access to weapons.

In addition to advancing the discourse on school active shootings, the findings of this study highlight opportunities for future research into the root causes of the rare but tragic school shootings in the Philippines. Longitudinal studies are necessary to collect primary epidemiological data on school firearm violence, weapon sourcing, and youth developmental risks across both urban and rural Philippine schools, thereby informing localized, evidence-based policies. Further research should assess the feasibility of integrating foreign safety protocols into Philippine educational institutions, including evaluations of funding, staffing, and the psychological impact of regular emergency drills on students and teachers. Comparative analyses between public and private schools, as well as urban and rural schools, are also warranted to identify differences in preparedness and resource needs. Another important area for future study is how new safety strategies align with existing Philippine disaster laws and policies. Researchers should investigate how to integrate active shooter plans with current safety systems to avoid unnecessary complexity or stress, ensuring any adopted measures are practical, legally compliant, and genuinely effective in safeguarding Filipino students.

Conclusion

The study concludes that physical security measures, such as armed guards and metal detectors, are predominantly reactive and frequently fail to prevent school shootings, while also contributing to heightened anxiety within school environments. Instead of relying on these barriers, Philippine schools should adopt proactive, evidence-based safety strategies. The Department of Education and the Commission on Higher Education should establish multidisciplinary behavioral threat assessment teams to detect warning signs early. Schools should also implement anonymous reporting systems so students can discreetly report potential threats. Furthermore, schools should replace passive lockdown procedures with flexible, active-response methods such as ALICE or Run, Hide, Fight. Legislative action is also necessary to enact child-access prevention laws mandating secure firearm storage at home, thereby reducing minors' access to weapons. Together, these proactive policies are expected to foster safer, more supportive learning environments across the Philippines.

Declarations

Author Contribution

The lone author wrote the whole manuscript.

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