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ACTIVE SHOOTER IN THE EDUCATION SETTING

by

Clint Seal and Jason Wells

A Doctoral Project
Submitted to the Graduate School,
the College of Nursing and Health Professions
and the School of Leadership and Advanced Nursing Practice
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Nursing Practice

Approved by:

Dr. Stephanie Parks, Committee Chair
Dr. Nina McLain, Committee Member

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ABSTRACT

Active shooter incidents are increasing steadily and continue to pose a tremendous public safety problem, especially in the educational setting. In addition, the majority of faculty and students remain uncertain of exactly what actions to take if an active shooter event occurs on campus. The lack of education, awareness and policy drills can inadequately prepare students, faculty, and staff for an active shooter event. The recognition of this inadequacy has prompted further investigation by The University of Southern Mississippi's (USM) Nurse Anesthesia Program as it relates to Asbury Hall. An anonymous survey was sent to current students enrolled in the Nurse Anesthesia Program to collect data regarding the student's knowledge of USM's active shooter protocol procedure.

The current nurse anesthesia students enrolled at USM voluntarily and anonymously participated in the survey regarding USM's active shooter policy. Approximately 78 participants completed the survey questionnaire. The questionnaire results identified several areas of knowledge deficits regarding the current policy. Consistently, participants of the study had differing responses to questions about what to do during an active shooter scenario. Participants were unable to collectively agree on sequential, appropriate, and safe actions according to USM's current active shooter policy. According to a review of literature, as this paper will demonstrate, the development of an effective presentation and deliverance of USM's active shooter policy to new and current students can effectively enhance policy education and awareness to promote the public safety of the students and staff specific to Asbury Hall.

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LIST OF ABBREVIATIONS

<i>AACN</i>	American Association of Colleges of Nursing
“““ <i>CNHP</i>	College of Nursing and Health Professions
<i>CRNA</i>	Certified Nurse Anesthetist
<i>FBI</i>	Federal Bureau of Investigation
<i>NAP</i>	Nurse Anesthesia Program
<i>SRNA</i>	Student Registered Nurse Anesthetist
<i>USM</i>	The University of Southern Mississippi

CHAPTER I - INTRODUCTION

Mass shootings are increasing since the 1990s and pose a significant challenge for public safety (Blair & Schweit, 2014). Mass shootings and active shooters are defined similarly by the Federal Bureau of Investigation (FBI). As defined by the FBI, “Mass shootings are gun crimes in which four or more people are wounded or killed, not related to gang violence or another criminal act such as robbery, and where victims were not all family members” (Glasofer & Laskowski-Jones, 2019). Similarly, the term active shooter is “an individual actively engaged in killing or attempting to kill people in a confined and populated area with a firearm” (FBI, 2016). Data obtained on active shooter incidents, according to the FBI, are staggering and reiterate the seriousness of harm posed on public safety. The recent trend of public mass shootings reveals the necessity of improving protocols and preparations for such an event.

Problem Description

Background of the Problem

Data collected by the FBI in the United States between 2000 and 2017 report approximately 800 deaths, and over 1400 injuries occurred related to active shooter incidents (Blair & Schweit, 2014). This is an alarming public health concern and can place a tremendous burden on first responders. Also, there is an increasing potential for active shooter incidents to occur in the school setting. For example, over 150 active shooter incidents in the healthcare setting were reported between 2009 and 2011, which resulted in 235 deaths or injuries (Leppert et al., 2019). Locations of commerce and businesses are the most likely target for active shooter incidents, according to Schwerin et

al. (2021). Higher learning institutions, such as schools and universities, are the second-highest target for active shooters (Venafro, 2020).

Active shooter incidents have an immense impact on public safety. As stated previously, the impact is a human tragedy, death, and injury. The immediate aftermath of active shooter incidents can place a financial burden on victims, including healthcare professionals, patients, and administration in the process of recovery (Marshall, 2018).

Active shooter incidents in a healthcare/school setting present unique challenges for healthcare professionals, patients, students, and staff. This presents public safety problems to many, including healthcare providers, patients, staff members, administration, and first responders. This issue can occur at any time and in any workplace setting, making planning and preparation complicated. Although many institutions have active shooter policies, many policies do not consider the unique challenges specialty units or satellite buildings present. Furthermore, lack of awareness of active shooter policies can increase this disparity, significantly increasing the potential for disastrous impacts on human life (FBI, 2016).

From a broad and general viewpoint, the likelihood of a single healthcare facility or school being involved in an active shooter scenario is not considered high or likely. Nonetheless, the continuing upward trend of mass active shooters frequently occurs, and the efforts to learn from recent shootings and make appropriate adjustments have been minimal. Consequently, active shooter incidents emphasize the responsibility held by institutions and organizations to ensure the safety of those enrolled or employed to their best ability. According to Section 5 of the Occupational Safety and Health Act (U.S. Department of Labor [DOL], 2004), employers are required to furnish workplaces “free

from recognized hazards that are causing or are likely to cause death or serious physical harm” (n.p.). In other words, institutions have a legal responsibility to create a safe workplace from identifiable harm (Keller, 2019). According to Myers (2016), hospitals and institutions must have policies known to the entire staff and implement regular practice training with mandatory participation to effectively safeguard occupants and faculty. Preparation for an active shooter incident involves adequate planning and implementation (Myers, 2016). Therefore, it is prudent to develop a policy that effectively addresses expectations, roles, and realistic training to prepare staff for an active shooter incident.

Statement of the Problem

Active shooter incidents are increasing and pose a public safety problem, especially in the educational setting. In most facilities, facility-wide protocols may not address unique issues related to specialty units such as outlying classrooms. Furthermore, lack of education, awareness, and policy drills can inadequately prepare students, faculty, and staff for an active shooter event. Therefore, the lack of recognition of active shooter policies can increase this imbalance by creating avoidable scenarios that can impede one’s life. In summary, an active shooter policy is most effective and promotes public safety if proper education and preparation are in place (Schildkraut et al., 2019).

Significance of the Problem

Studies by Glasofer and Laskowski-Jones (2019) show insufficient knowledge of workplace policy protocols, little to no training exercises, and limited research regarding training models regarding an active shooter incident. Preparation and preparedness are crucial elements to improve outcomes during a disaster, such as an active shooter

incident. It is essential to develop a policy that addresses an active shooter incident that applies to an institution and all additional specialty units to minimize injury and promote public safety. Increasing the faculty and staff's preparedness can improve outcomes and decrease injuries and deaths during an active shooter event (Glasofer & Laskowski-Jones, 2019). In contrast, appropriate and well-developed policies can be ineffective if proper education and preparedness are not in place. The knowledge deficit and lack of preparedness regarding institution active shooter security protocols have the potential to rapidly escalate into chaotic situations leaving students, visitors, and faculty members in mortal danger (Leppert et al., 2019).

Purpose and Context

Stakeholders and Departments

It is important to utilize local and state resources to identify vital statistics, government plans, and data about active shooter policies (DHS, 2020). This information can help identify stakeholders closely related to active shooter policy implementation (DHS, 2020). For example, the FBI's data quickly identifies how vital disaster preparedness can improve staff and patient safety outcomes and decrease injuries' potential. Information obtained from these critical resources helps identify the first group of stakeholders and possible champions for securing a successful policy implementation.

University administration is a crucial stakeholder for this program. Multiple data sources, previously reported by Glasofer and Laskowski-Jones (2019) and Leppert et al. (2019), reveal how an active shooter policy can mitigate casualties properly by preparing and training staff to react in such an incident. Increased student, faculty, and staff safety are primary examples of why the administration should be a key stakeholder for this

policy implementation. In addition, as educational institutions become more involved in the community, an active shooter policy's success can instill trust and promote a sense of safety (National Threat Assessment Center [NTAC}, 2018). Furthermore, fostering confidence and a sense of protection within the community can motivate the community to become a crucial stakeholder in maintaining compliance and future success (NTAC 2018). These stakeholders can play a significant role in the successful implementation of this policy.

Policy Impact on Healthcare, Practices, or Outcomes

Successful education and implementation of an active shooter policy require a team approach. The primary staff needs to be represented at the table with the other primary stakeholders to implement the policy effectively (Siegelau, 2005). According to Siegelau (2005), involving stakeholders and encouraging input is critical to successfully implementing any change process. Furthermore, engaging stakeholders allows both the public and the faculty to benefit by addressing real safety concerns a potential active shooter incident places on a community.

Accreditation and Compliance

Educational facilities and workplaces are required to provide a safe workplace, free from recognizable harm (DOL, 2004). According to the FBI (Glasofer & Laskowski-Jones, 2019), active shooter incidents are becoming an identifiable hazard in the workplace. As an identifiable hazard, institutions have an increasing burden and responsibility to provide public-safety regarding active shooter incidents. The importance of disaster preparedness, such as fire, hurricane, or tornado drills, should expand to include education on active shooter incidents. Section 5 of the Occupational Safety and

Health Act of 1970 states that employers are required to furnish workplaces “free from recognized hazards that are causing or are likely to cause death or serious physical harm” (DOL, 2004). Therefore, institutions must address the identifiable public safety issue of an active shooter incident policy that effectively addresses expectations, roles, and realistic training and education to prepare staff and students for an active shooter incident.

Available Knowledge

Types of Violence

A common question around violent incidents involving firearms is the difference between motive or intent. Why do active shooter incidents occur? According to Schwerin (2020), a fundamental difference exists between most violent crimes and active shooter incidents. Active shooter incidents are often strategically planned. In contrast, violent crimes are often impulsive and emotionally based reactions to a situation. In either event, similarly, the assailant is responding to a grudge or a perceived personal transgression. Schwerin (2020) elaborates that understanding these incidents differentiates a violent crime that is a spontaneous isolated interaction between two parties and an active shooter incident methodically targeting many people. Therefore, this fundamental distinction, if recognized, may provide a warning for an active shooter incident.

A thorough understanding of various intents promotes recognition of potentially threatening situations and possible victims. According to Schwerin (2020), there are four primary intents: criminal intent, customer intent, worker-to-worker intent, and ideological violence intent. Recognizing and understanding these four primary intents can offer

insight into the *why* and provide warning signs to violent acts, including active shooter incidents.

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The second category involves customers or patients that initiate a shooting episode. The author explains that these situations relate to a preceding event that allows for a grudge to build and eventually leads to the shooter attaching their perceived enemy at their place of work. These violent events are focused on employees, clients, patients, students, inmates, or service-providing businesses (FBI, 2016). In the hospital setting, the targets of a patient or customer are social workers and psychiatrists. Social workers' rationale can be due to the reporting of behavior or actions that result in repercussions. One example is a parent losing the right to continue care for a neglected or abused child. Furthermore, psychiatrist's patients can develop irrational delusions about their provider and feel the urge to retaliate. These two areas of a target can relate to the other because one person is being perceived as the root source of a problem towards another person.

The third category consists of worker-to-worker relationships. It can be defined as the violence towards coworkers or managers by a current or previous employee (FBI, 2016). Schwerin (2020) describes this form as a violent incident that stems from a workplace conflict or difference that previously occurred. It is understood that the

attacker has the belief that they were unfairly treated by a colleague and attempts to create a sense of personal justice for the situation. In 2017, a formerly employed physician at a New York hospital instigated a shooting rampage when he returned to his previous employment site in an attempt to confront another physician (Foderaro, 2017). This incident resulted in the death of one physician and substantial injuries to others near the scene.

The fourth type includes those that involve those in a relationship, and the attacker confronts their partner at their place of employment (FBI, 2016). Statistically, the assailant is not an employee, but their (often female) partner is and sparks a dispute (Schwerin, 2020). The common thread issue pertaining to this form of violence is related to one side filing an order for divorce or a restraining order. The authors further conclude that these instances of violence frequently occur outside of the businesses and parking lots.

Lastly, the fifth type of violence is termed ideological. Schwerin (2020) states that this category of cases is on the rise in comparison to the previous examples. With ideological violence, the attacker has certain beliefs regarding an issue or stance. These occurrences tend to have only the goal of instigating mass widespread violence towards a large group of people.

Each form of violent intent is dangerous and can result in harm and wrongful death of those involved. It is worth noting the contrasting difference that isolates ideological forms of violence. Specifically, these cases focus on the number of individuals that can be affected by their attack. In healthcare and educational facilities,

the last couple of decades have witnessed more than 100 different terrorist attacks against healthcare facilities across 43 different countries (Schwerin, 2020). The author further states how these facilities are growing as a target due to the ability to create chaos in an environment with many people to impact more individuals that are unlike any other business or location.

Active Shooters in the Educational Setting

The alarming rate of active shooter events in just the United States of America alone from 2000 to 2018 reached a staggering 277 times (FBI, 2016). From those events, the data reveals that 2,430 individuals were either killed or wounded by the attacker. It is worth noting that the previous statistic withholds the number of deaths of the shooter(s). The vast majority of these incidents were unrelated to healthcare facilities, but the rising trend of shootings across the board shows the potential of any location being the next target. However, around 3% of the nation's hospitals were involved with a shooting event during 2000-2011 (Motzer & Williams, 2010).

Furthermore, more than 18,000 of the 25,000 workplace assaults occur yearly in healthcare settings (Stephens, 2019). The author includes that this data is restricted to the 30% of nurses and 26% of physicians that formerly reported violent incidents. This alarming trend identifies healthcare workers and future healthcare workers as a high-risk population.

Educational facilities are unique in operational hours, accessibility, and security that can allude to this being a soft or easy target choice. Due to students' needs being a continuous and unending duty, entry access to the educational building is easily

accessible for students. The ability to gain access to targeted areas is a crucial obstacle for attackers, and without this capacity, it would be unlikely to be a successful attack. The lack of this barrier allows one to choose any time for entry and prepare for an attack. Motzer and Williams (2010) further discusses that facility security promotes false safety due to the lack of screening individuals entering the facility. Also, the staff's security staff are unlikely to bear arms of any respect that can defend against any firearm. Similar to most large facilities, there may be multiple entrances and access points that can be used. While some buildings limit the functioning entrances at night, continuous staff working in and throughout the facility can negate time-locked doors. These factors make educational facilities and locations quite vulnerable to criminal behavior and cannot defend or protect students, faculty, staff, and visitors from any form of legitimate harm.

As previously discussed, the common ground of an active shooting event can be tied with strong emotions that lead to the motivation to take action. Any facility can experience family issues, domestic violence issues, psychiatric issues, and workplace conflicts (Motzer & Williams, 2010). These various issues and ensuing solid emotions can cloud one's judgment and irrationally act upon them. More than 50% of violent episodes link these feelings with active and estranged relationships (Schwerin, 2020). Less common but relevant is the incidence involving current or former students and employees, combining the stressful and seemingly unbearable wash of emotions experienced with an individual or individuals that can be interpreted as the root cause enables retaliation efforts. This common ground between shooters and victims contrasts

with other mass shootings due to more than half of educational setting shootings involving a background between individuals.

The dense population of staff, students, and visitors facilitate a vulnerable setting with the potential to elicit a high casualty count. However, not all areas of a hospital allow individuals to immediately take shelter when danger occurs. Areas with patients requiring continuous monitoring, such as in the specialty units like operating rooms and emergency departments, propose daunting decisions for healthcare providers on what to do for the patient's safety and of their own.

Action Plans Against Active Shooters

A policy response procedural plan that describes the chronological steps of precisely what to do when an active shooter event occurs is the basis and foundation every institution must have. The United States Department of Homeland Security (DHS, 2020) identifies three steps to outline an essential and practical procedural guideline to help those engaged in an active shooter event. The DHS's three-step action plan instructs how to escape from a threat, how to hide and shelter-in-place, and how to engage if confronted with an active shooter.

Initially, the goal of the action plan is to evacuate and escape the threat. This premise encourages and recommends that one must be constantly aware and engaged in their surroundings. The importance of having an escape route and plan will enable the location of a predetermined safe place to reach. A crucial factor is immediate recognition of gunfire and not delaying evacuation due to debating if the situation is real or not. By hesitating and waiting for an active shooter's confirmation, the window of opportunity to

reach a safe spot can close. By doing so, this could pertain to leaving any belongings not in hand behind. The evacuation phase is time-sensitive and stresses the importance of prophylactic planning. Additionally, if possible, initiate others to follow with you and to help those in need of physically distancing themselves from the area.

Second, the alternative to escaping from danger is to determine where to hide within one's surroundings. The key for hiding is to determine and visualize the shooter's point of view to avoid being discovered. The ideal hiding location would be behind large objects that limit the penetration of ammunition. If applicable to one's surroundings, prevent the shooter from accessing the hiding location. This can be achieved by locking doors and barricading the door threshold with nearby objects to discourage and limit the shooter from entering.

Furthermore, it must be stated the importance of determining the proximity of the shooter. In situations that place one nearby the shooter, it is vital to remain as quiet as possible to prevent alerting the threat of one's location. Turn off any source of noise in the hiding area and limit movement to remain unseen and unheard. Also, calling 911 should be done once in a secured location to ensure proper authorities' are notified of the situation.

The third step in the action phase discusses the action against an active shooter. This is applicable when there is no other alternative situation available, and one's life is in danger. The importance in this circumstance is to exhibit boldness and bravery to be perceived as a threat to the shooter's plan. By acting aggressive and hostile, attempt to

prevent the shooter from causing harm by disabling or disrupting the actions. Objects in reach or nearby that can potentially be used as a weapon should be used to harm the shooter. Maintaining a firm stance on self-defense is pertinent to overcome the threat.

Training, Preparation, and Simulation

The ability of collegiate institutions to eliminate the threat of violence by an active shooter is an unattainable standard. This holds true as each college or university is vastly different in terms of campus layouts and its surrounding environment. The variations and differences between a rural setting campus compared to an institution located amid a largely populated city. Thus, each school's mission is to educate and inform students and faculty about the specific factors that apply to their situation. The use of a blanket policy protocol is insufficient and unacceptable.

Many barriers exist limiting the possibility of training simulations. Necessary funding, time, and upper management involvement are obvious barriers limiting training and simulation (Myers, 2016). Each institution varies on the amount of funding and time available. Also, a lack of upper administration involvement and support for the cause can impede training progress. These hurdles of moral and legal obligations fall on every institution to provide their public's safety (DOL, 2004). Students, staff, faculty, and administration must be thoroughly trained for their role regarding the policy guidelines.

For this reason, mandatory training should be performed annually involving the entire campus. This action is to assess and evaluate the baseline of an institution's ability to handle a real-world threat. Training and simulations allow the recognition of areas of

strengths and weaknesses. The integration and encouragement of local law enforcement, first responders, and SWAT teams are highly recommended to allow quick response times and limit the duration of an active shooter attack (DHS, 2020).

Rationale

Framework and Theories

Use theoretical models and frameworks has been utilized for years to examine a standard or policy thoroughly. This review's rationale will incorporate Kolb's learning style theory to expand the effectiveness and close the knowledge gap related to the current policy. This theory application is founded on enabling one to learn by using abstract concepts that assimilate to various applications (McLeod, 2017). Kolb's theory relating to learning styles includes a four-staged cycle sequence that complements and builds from the other. Once all four stages are addressed and executed, then and only then can effective learning be achieved (McLeod, 2017).

The initial stage involves a concrete experience or circumstance. This stage relates to an original situation that one may face or a reenactment of a previously established experience (McLeod, 2017). In this stage, the focus is the ability to assimilate information and exhibits the trait of feeling an experience. The second stage is classified as reflective observation and the processing of information. An example of this stage can be simply defined as watching, overserving, or processing questionnaires. One crucial aspect in this stage is detecting any discrepancies from the initial experience and the time of reflection and understanding (McLeod, 2017). The third stage is termed abstract conceptualization. During this step, there is the forming of an analysis and generalizations that help form a conclusion. The creation of new and different ideas or

adjustments can be applied to an existing abstract concept (McLeod, 2017). Simply, one can learn from their previous experience or situation and can adapt accordingly. Finally, the fourth stage is the physical active experimentation process. It is at this time that the previously discovered ideas and modifications are applied to the situation (McLeod, 2017). By testing a new hypothesis, the creation of a new and unique experience is possible. This completes the circular stage process and allows for the theory to repeat itself.

Kolb's theory can be further used by applying the four stages in a two-by-two axis matrix (McLeod, 2017). The x-axis is termed the processing continuum and includes how one approaches a task at hand. The y-axis is termed the perception continuum and relates to an emotion that is provoked and how it makes one think and feel. Also, two stages are included inside this matrix on each axis line and combine to describe the four learning styles. The four terms created are diverging, assimilating, converging, and accommodating. The terms enable the ability to classify a person's traits and attributes and illuminate areas of strength.

A diverger is the concrete experiences and reflective observation stages that describe one as analytical and discovering value. Individuals that are in this category prefer feeling, watching, and collecting information to creatively solve a problem (McLeod, 2017). They are likely involved in group projects and are more open to different opinions and suggestions. Divergers are interested in other people and can have strong emotions and imaginations.

An assimilator includes the stages of abstract conceptualization and reflective observation. Individuals who form this style are fascinated with different concepts as

observers (McLeod, 2017). This learning style must have a logical approach with a transparent elucidation. These individuals can grasp broad information and concentrate data into a logical format. This group thrives in areas involving data information handling and science. They prefer reading, lectures, and being able to thoroughly consider a whole process.

The converges stem from combining abstract conceptualization and active experimentation stages. This style identifies technical learners that are independent and practical thinkers (McLeod, 2017). These individuals are best at finding actual uses for ideas and concepts. Converging learners are less focused on people and relationships and prefer problem-solving and finding solutions. This group is likely to trial new ideas and determine how to apply the concept.

The last type of learning preference is an accommodator that is the product of concrete experience and active experimentation. Those that prefer this style can adapt accordingly to changes to solve a problem. This includes those that want hands-on experiences and rely on intuition instead of analysis (McLeod, 2017). Accommodating individuals utilize others and their analysis and data collection. This style learner enjoys new challenges and situations with the ability to execute a proposed plan. The style includes much of the general population.

The application of Kolb's learning model theory to the current active shooter policy would involve each area of learning style and promote effective learning. A singular presentation of information limits the current active shooter policy. As Kolb discussed, the inclusion of an experience and the subsequent feelings and reflection allows a comprehensive thought process to occur (McLeod, 2017). This type of learning

helps to ensure that all individuals are given the ability to learn the information presented to their unique preferences. Individuals that have been adequately engaged can most effectively learn information. Therefore, this theory's practice with the current active shooter policy will eliminate the current knowledge gap between the policy guidelines and the actual execution. The importance of learning and application cannot be understated, especially in situations that involve potential threats to one's safety and health.

DNP Essentials

The requirements for this DNP project for the USM College of Nursing and Health Professions (CNHP) include meeting the American Association for Colleges of Nursing (AACN) DNP Essentials. According to the American Associations for Colleges of Nursing (AACN), eight essentials are required for advanced nursing practice (AACN, 2021). This project specifically meets seven of the eight AACN essentials required for advanced nursing practice (Appendix C).

Essential One: Scientific Underpinnings for Practice. This project specifically meets Essential One by incorporating natural and social sciences to improve education for a policy recommendation for an active shooter incident.

Essential Two: Organizational and Systems Leadership for Quality Improvement and Systems Thinking. Essential Two is specifically met because this project incorporates organizational models, evidence-based interventions, and learning styles to improve knowledge and safety in the event of an active shooter incident.

Essential Three: Clinical Scholarship and Analytical Methods for Evidence-Based Practice. This project integrated research and current guidelines to develop a quality improvement practice change promoting awareness of the active shooter policy.

Essential Five: Health Care Policy for Advocacy in Health Care. The goal of this project was to recommend a policy change to improve awareness and education that affects safety concerning an active shooter incident.

Essential Six: Interprofessional Collaboration for Improving Patient and Population Health Outcomes. This project actively promoted collaboration with a panel of experts and professionals, including faculty, students, and law enforcement, to improve safety outcomes and disaster preparedness.

Essential Seven: Clinical Prevention and Population Health for Improving the Nation's Health. This Essential focused on public health and safety by addressing an identified knowledge deficit for an active shooter incident.

Essential Eight: Advanced Nursing Practice. This project utilized evidence-based interventions and learning styles to enhance population health and community safety.

Specific Aims

Active shooter incidents are increasing steadily and continue to pose a tremendous public safety problem, especially in the educational setting. For this reason, the importance of thorough training and practicing a simulation of an active shooter scenario should promote the safety of the faculty, staff, and student body. The central focus of this project is to identify any lack of knowledge or insufficient training of students, faculty, and staff related to the current active shooter preparedness policy for the CNHP at Asbury Hall on the campus of USM. The goals set by the authors of this

project are to assess the staff and student's knowledge of what to do in the event of an active shooter event and can execute the current active shooter policy guidelines. This can be evaluated by conducting a questionnaire survey to the faculty and student body followed by a training drill during the CNHP orientation. The use of quantitative research will allow for data collection from surveys presented to the CNHP administrators to determine if a knowledge deficit is present regarding the active shooter policy.

Summary

Active shooter incidents are a real threat to modern businesses and educational facilities. Disaster preparedness for an active shooter incident is crucial to mitigate the loss of life, business, and finances. Developing an active shooter policy plan using a team approach is imperative for effective crisis mitigation. In most facilities, facility-wide protocols may not address unique problems related to specialty units such as outlying classrooms. Furthermore, lack of education, awareness, and policy drills can inadequately prepare students, faculty, and staff for an active shooter event. Although an active shooter policy is in place at the USM Hattiesburg campus, the extent to which students are educated on the policy and understand location-specific plans in the event of an active shooter is unclear. Studies show that most organizations have an active shooter policy, yet the plans and details of the policy are not largely known or practiced. Consequently, vulnerabilities exist for students, staff, and faculty on how to respond and effectively implement the policy in the event of an active shooter incident. In summary, an effective active shooter policy can only be effective and promote public safety if proper education and preparation are in place.

CHAPTER II – METHODOLOGY

Introduction

Active shooter incidents in a school setting present unique challenges for faculty, staff, and students. This issue can occur at any time and in any area of the workplace setting, making planning and preparation complicated. Although many institutions have active shooter policies, many policies do not consider the unique challenges specialty units or satellite buildings present. Furthermore, lack of awareness of active shooter policies can increase this disparity, significantly increasing potential disastrous impacts on human life. The development of an effective questionnaire regarding USM's active shooter policy can effectively assess the knowledge and awareness of the students and staff specific to Asbury Hall.

Context

This project was implemented in connection with the current emergency protocol policy of The University of Southern Mississippi. This urban-setting university had approximately 14,500 students enrolled at the start of the 2019 academic year. According to The University of Southern Mississippi Facts and Information (2019), the student demographic were 37% males, 63% females, in addition 85% were Caucasian and African American. For this project, a single program department was used for analysis and intervention. The educational department of focus that was involved in this study has an estimated 75 faculty members and 800 students annually. At the time of this study, the student population consisted of undergraduate and graduate students.

Each year the incoming student body begins their academic year with a generalized orientation with information regarding their degree path. Students are

oftentimes scheduled to complete multiple days of orientation that discuss various topics before the commencement of academic courses. The entire orientation content that is presented to the new student class collectively has importance and requires attention. However, this continual presentation of information can lead to inattention and may result in certain topics being easily forgotten. For this reason, orientation topics discussing policies that are deemed uncommon or unlikely may lack the ability to grasp the attention of students. The safety and health of the student body and faculty are unnecessarily at risk without a solid foundation of learning regarding emergency protocol policies, such as an active shooter scenario.

Design

Qualtrics Survey Development

After IRB approval (IRB Protocol # 21-123), a Qualtrics survey was developed to assess the current educational level of students and faculty in the nurse anesthesia program. The 10-question survey was developed to test the level of understanding of the current USM Active Shooter policy.

Participant Recruitment

Participants were recruited through an email sent to students and faculty of the nurse anesthesia program. The email stated that volunteers were being sought to provide feedback about the current active shooter policy at The University of Southern Mississippi. The email contained a disclaimer assuring the participants of their anonymity and the confidentiality of the data being collected. Participants were assured that participation was voluntary and that non-participation would not result in any repercussions.

Intervention

A knowledge assessment questionnaire was administered through the USM Qualtrics survey tool to assure anonymous evaluations through a link sent via email to the target population. The questionnaire surveyed a voluntary convenience sample of Student Registered Nurse Anesthetists (SRNAs) and Certified Registered Nurse Anesthetists (CRNAs) at Asbury Hall regarding the active shooter preparedness policy of Asbury Hall, the Nurse Anesthesia Program (NAP) at USM.

Evaluation

The central focus of this project was to identify any lack of knowledge or insufficient training of students, faculty, and staff related to the current active shooter preparedness policy for the CNHP at Asbury Hall on the campus of USM. The goals set by the authors of this project were to measure the knowledge of staff and students of what to do in the event of an active shooter event. Data collection, processing, and reporting involved the dissemination of the questionnaire results. Since an overwhelming majority of the panel acknowledged a lack of awareness of an appropriate response and/or existence of an active shooter policy, a knowledge gap was identified. Evaluation of the Qualtrics survey provided critical feedback regarding the knowledge of the current active shooter preparedness policy for the CNHP at Asbury Hall on the campus of USM. To ultimately promote safety, the results of the survey will accomplish the goals set by the authors of this project by identifying a lack of knowledge of a crucial disaster plan. Furthermore, the dissemination of the information collected in this project may provoke future plans to address these knowledge deficits and ensure faculty, staff, and students know what to do in the event of an active shooter event and can execute the plan.

Summary

As previously mentioned, active shooter incidents in the education setting present unique challenges for faculty, staff, students, and security personnel. An active shooter event can occur at any time and in any area of the workplace setting, making planning and preparation complicated. Although many institutions have active shooter policies, many policies do not consider the unique challenges presented within specialty units or satellite buildings. Furthermore, lack of awareness of active shooter policies can increase this disparity, significantly increasing potential disastrous impacts on human life. To fully understand the extent to which students, staff, and faculty at a facility understand the details of an active shooter policy, a quantitative study was administered to the population to be studied in the project. Based on the findings of this needs assessment, the development of an effective presentation and delivery method of USM's active shooter policy can effectively enhance policy education and awareness to promote the public safety of the students, faculty, and staff specific to the location of the nurse anesthesia program in Asbury Hall.

CHAPTER III – RESULTS

Analysis

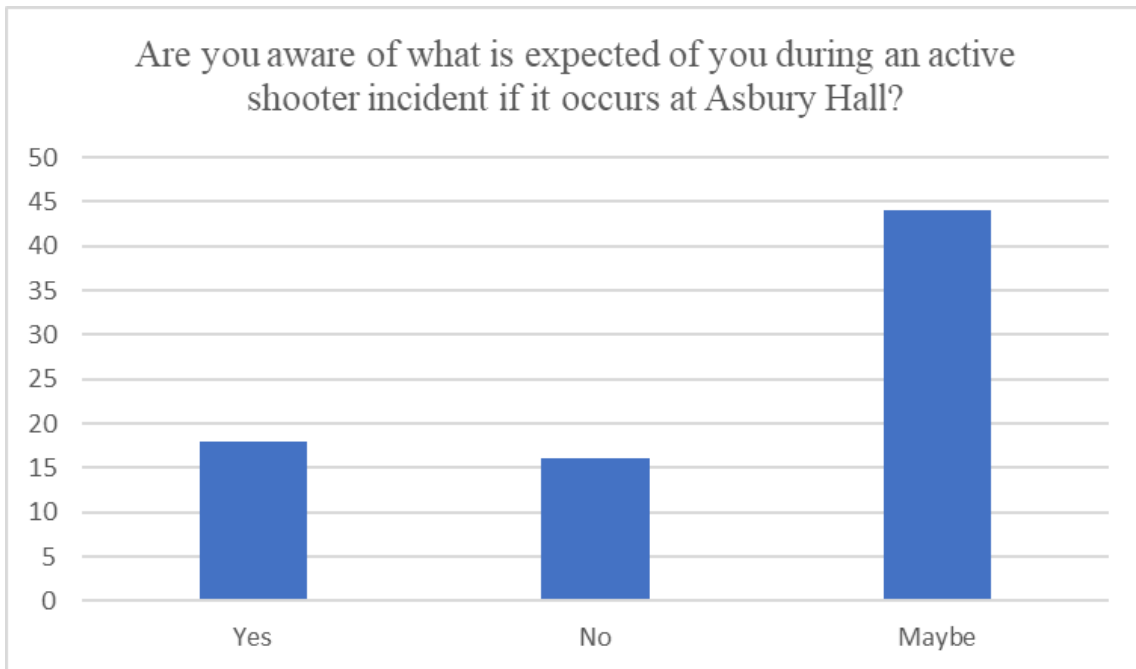
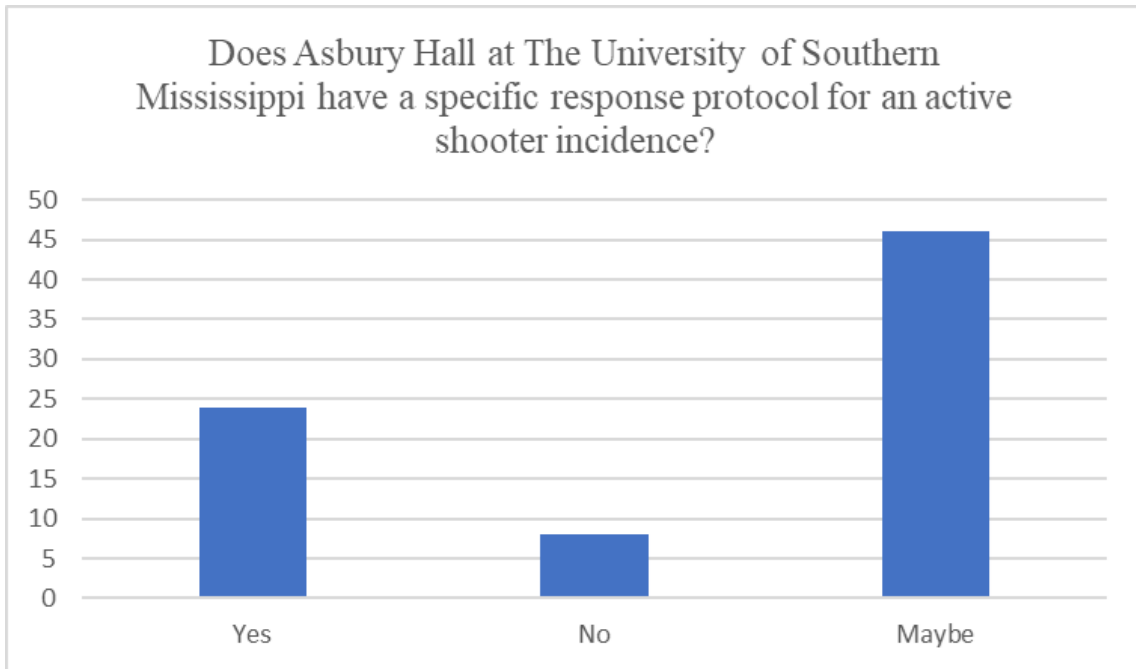
The purpose and goal of this project were to evaluate the understanding and knowledge of USM's active shooter policy for the NAP. This study was voluntarily performed by currently enrolled nurse anesthesia students at USM. They were asked to complete a questionnaire form that discussed USM's active shooter policy and what they are to do in such an event. Approximately 78 participants completed the survey questionnaire and the compiled results remain anonymous. The questionnaire results identified several areas of knowledge deficits regarding the current policy. Participants of the study were unable to collaborate and agree on any one question. Most of the participants did know what to do in an active shooter event, however, several were unsure of the appropriate actions to take. For this reason, there is an undisputed belief that further actions are needed in order to close the knowledge gap. The development of an effective presentation and deliverance of USM's active shooter policy may effectively enhance policy education and awareness to promote the public safety of the faculty, students, and staff specific to Asbury Hall.

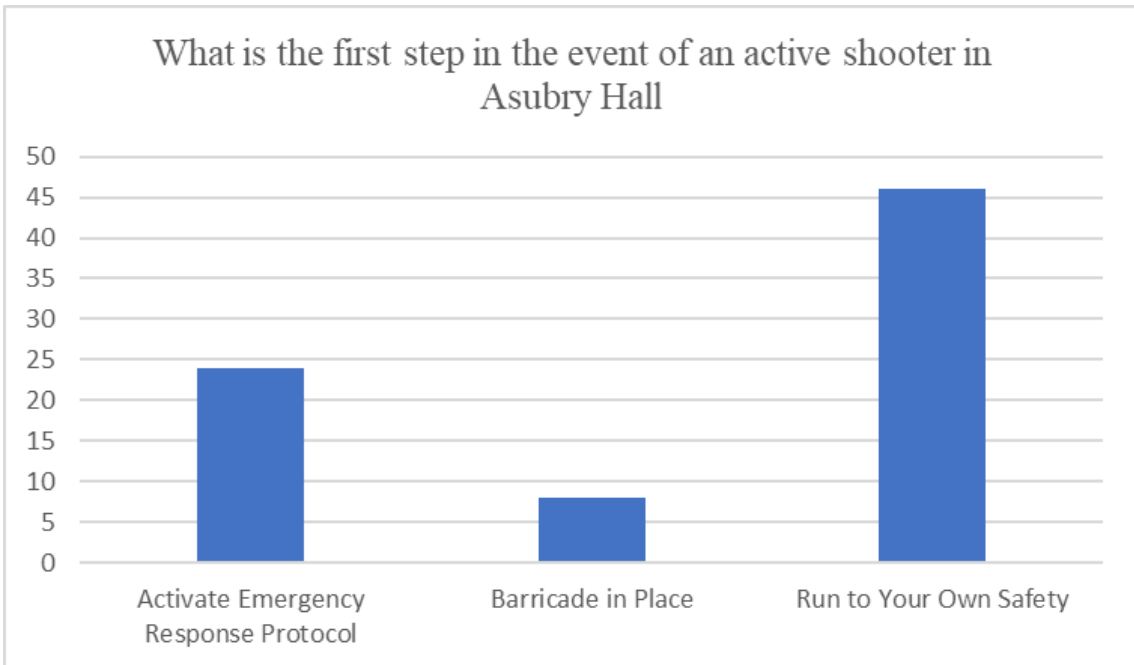
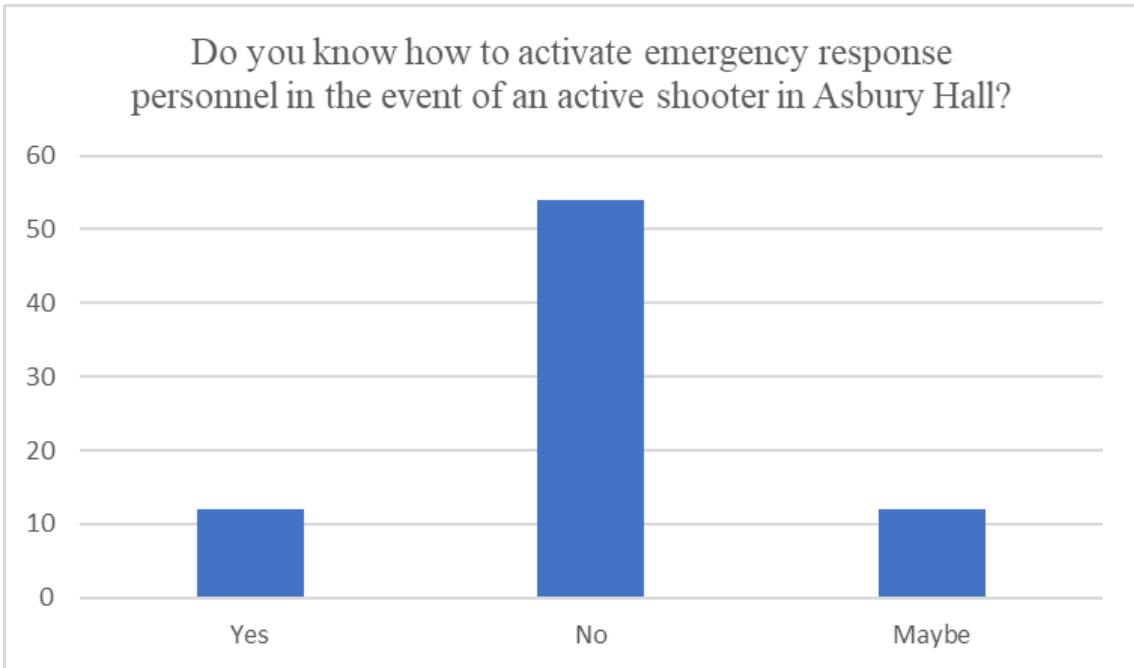
Report of Findings

The survey questionnaire was emailed to all currently enrolled student registered nurse anesthetists (SRNAs) at USM. The email incorporated an invitation to participate in the survey by clicking on a link. The link navigated to the Qualtrics domain, which this project chose for anonymous data collection. Two weeks after the survey was emailed to all potential participants, there were a total of 78 individuals that agreed to complete the survey. The following are the surveyed questions and responses of the volunteers.

Table 1

Survey Questions and Results





Implementation into Practice

According to the data collected following this survey, there is a clear need for additional teaching and training for the students enrolled in the NAP at USM. This data confirmed the hypothesis of this project. A uniform or collective agreement of the action plan, detailing what everyone is to do during a crisis is not known. The dissemination of data collected identifies a knowledge deficit exhibited by the current students.

Ethical Considerations

The ethical considerations were thoroughly addressed throughout this project. The focus areas to ensure an ethical foundation include the confidentiality of survey participant's identity, accurate data collection and handling, interpretation, and presentation. All data collected for analysis stemmed from voluntary participants and remained anonymous. The conduct of a trial scenario was maintained professionally in order to generate accurate and valid information regarding student and faculty baseline knowledge of the current active shooter policy. Utilizing participant time is the only known risk to the survey. In addition, no direct contact took place.

Summary

Utilizing Qualtrics, an anonymous data collection system, 78 participants voluntarily participated in a survey questionnaire regarding their personal knowledge of USM's active shooter policy. The survey questionnaire preserved ethical integrity by maintaining confidentiality, accurate data collection, and synthesis of results. Based on the data collected and evaluated in this project, knowledge deficits regarding the current active shooter policy are evident. The data confirmed the hypothesis of this project. In

summary, the dissemination of data collected identifies a knowledge deficit exhibited by the current students.

CHAPTER IV – DISCUSSION

Introduction

Active shooter incidents in the education setting present unique challenges for faculty, staff, students, and security personnel. An active shooter policy and disaster preparedness can mitigate the loss of life and disruption to the business. (FBI, 2016). In an attempt to identify a knowledge gap, this project used a voluntary questionnaire to quantify the extent of knowledge and understanding students, staff, and faculty at USM NAP possess of the current active shooter policy in regards to Asbury Hall.

Interpretation

Active shooter situations are exceptionally traumatic events that occur without any type of notice. For that very reason, the undeniable importance of preparation and readiness is crucial for the safety of each individual involved. An astounding 77% of participants were unsure or did not know what was expected of them during an active shooter event inside Asbury Hall. Only 15% of participants stated they did know how to activate emergency response personnel if an active shooter event occurred. The survey of current NAP students at USM helped to show those invested in this project how essential further education is to close the knowledge gap. The goal and sole purpose of this project was to help define and to prove that a deficit of understanding truly existed for current NAP students concerning an active shooter scenario.

Limitations

As with most things in life, limitations are always present. For example, an area of improvement for this project is the number of participants involved in the survey. The addition of more participants might have shown a greater degree of knowledge deficits

across the campus and the student body as a whole. Another area of limitation with this project is the unavailability to analyze a post-test following the presentation of this project's additional information. Unfortunately, time restraints did not permit the presentation to take place.

Future Implications

Based on the data collected and evaluated in this project, knowledge deficits regarding the current active shooter policy are evident. The central focus of this project has been achieved. Further studies would likely show the same knowledge deficit in other colleges and departments on campus. The results of this project could lead to addressing these knowledge deficits and promoting awareness of the active shooter policy. Future implications of the data collected from this project could lead to the promotion of the safety and well-being of students, faculty, and staff, not only in Asbury Hall but possibly the entire USM Campus.

Conclusions

Based on the data collected and evaluated in this project, knowledge deficits regarding the current active shooter policy are evident. According to the review of literature, lack of awareness and disaster preparedness of active shooter policies can significantly increase the potentially disastrous impacts on human life. As stated previously, many institutions have active shooter policies, but most policies do not consider the unique challenges specialty units or satellite buildings present. This remains true with Asbury Hall and the students in the NAP. The NAP knowledge barriers of the active shooter policy present a safety concern.

The data collected from this project accomplishes the authors' central focus of identifying the lack of knowledge related to the current active shooter preparedness policy for the CNHP at Asbury Hall on the campus of USM. Furthermore, the future implications this valuable data presents can be utilized to address major safety concerns. In conclusion, active shooter events are real threats to the safety of our community. Safety can be promoted with preparedness, knowledge, and understanding of how to react and utilize an active shooter policy.

APPENDIX A – DNP Essentials

Essential I	Scientific Underpinnings for Practice	This project specifically meets essential one by incorporating natural and social sciences to improve education for a policy recommendation for an active shooter incident.
Essential II	Organizational and Systems Leadership for Quality Improvement and Systems Thinking	Essential two is specifically met because this project incorporates organizational models, evidence-based interventions, and learning styles to improve knowledge and safety in the event of an active shooter incident.
Essential III	Clinical Scholarship and Analytical Methods for Evidence-Based Practice	This project integrates research and current guidelines to develop a quality improvement practice change promoting awareness of the active shooter policy.
Essential V	Health Care Policy for Advocacy in Health Care	The goal of this project is to recommend a policy change to improve awareness and education that affects safety concerning an active shooter incident.
Essential VI	Inter-professional Collaboration for Improving Patient and Population Health Outcomes	This project actively promotes collaboration with a panel of experts and professionals, including faculty, students, and law enforcement to improve safety outcomes and disaster preparedness.
Essential VII	Clinical Prevention and Population Health for Improving the Nation's Health	This focuses on public health and safety by addressing an identified knowledge deficit for an active shooter incident.
Essential VIII	Advanced Nursing Practice	This project utilizes evidence-based interventions and learning styles to enhance population health and community safety.

APPENDIX B – IRB Approval Letter

NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.
- Face-to-Face data collection may not commence without prior approval from the Vice President for Research's Office.

PROTOCOL NUMBER: IRB-21-123

PROJECT TITLE: Active Shooter: Are We Prepared?

SCHOOL/PROGRAM: School of LANP, Leadership & Advanced Nursing

RESEARCHER(S): Clint Seal, Jason Wells, Stephanie Parks

IRB COMMITTEE ACTION: Approved

CATEGORY: Expedited

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

PERIOD OF APPROVAL: April 29, 2021

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

APPENDIX C – Questionnaire

Active Shooter: Are We Prepared? Questionnaire

Clint Seal, The University of Southern Mississippi, DNP Project

Active-Shooter Incident Preparedness

1. An active shooter is defined as:
 - a. Any person who is actively using deadly physical force on another
 - b. Any armed person who has used deadly force and continues to do so on additional victims (C3 Pathways, 2019)
 - c. Any armed suspect that has access to victims and may harm them
2. Does Asbury Hall USM have a specific response protocol for an active shooter incidence? (Yes or No) OR Does USM have an active shooter plan? This identifies a problem because YES they do and few are likely aware.
3. Are you aware of what is expected out of you during an active shooter incidence? (Yes or No) Your ultimate goal is to run to your safety Glasofer (2019).
4. Do you believe an active-shooter policy and training program can improve safety? (Yes or No)
 - a. According to Glasofer (2019), preparedness is critical to safely react to active shooter incidents. S
5. How do you activate an Active-Shooter protocol at Asbury Hall USM? Call 911 or 601-266-4986
6. If you cannot remember how to activate an active shooter incident should you call 911? (Yes or No)
7. What is the first step in the event of an active shooter incident? Run to your safety, then activate the active shooter policy or call 911. (Blair & Schweit, 2014).
8. What is the closest exit to your classroom in the event of an active shooter? (locate and identify exits in the building)
9. What are the 4 “outs” nationally known during an active shooter incident? Get out, Hideout, keep out, take out (Mccarty & Nixon, 2019)
10. Most active shooter incidents last 2 minutes or less. (True or False)
 - a. According to FBI 2014, most active shooter incidents last 2 minutes or less, making it extremely important for timely active-shooter code activation and trained staff response (Blair & Schweit, 2014).

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[2/#:~:text=The%20recommended%20protocol%20for%20those%20responsible%20for%20others,the%20facility%20or%20area%20as%20quickly%20as%20possible.](https://servicemasterdsi.com/4671-2/#:~:text=The%20recommended%20protocol%20for%20those%20responsible%20for%20others,the%20facility%20or%20area%20as%20quickly%20as%20possible.)

How to Respond to an Active Shooter

GET OUT HIDE OUT TAKEOUT

- Move away from the shooter! Have an escape route
- Call 911! Calmly Quickly and accurately describe the shooter: description, location, and weapons!
- If you are not able to GET out, Hide out! Barricade doors and windows, Out of sight, Out of mind!
- If in imminent Danger TAKE out! Act with aggression. Throw items! Incapacitate the shooter

1. Calling 911 will quickly activate USM active shooter response. Be ready to quickly and calmly give an accurate description of the incident (describe shooter(s), location, weapons, and name, if known)
2. Hide out, if you are unable to get out! Warn others to take shelter and hide. Go to a room and lock and barricade doors and windows.
3. Take out, if you are unable to get out or hide out, defend yourself at all costs do not surrender

INTERACTING WITH LAW ENFORCEMENT

- **DO NOT** expect officers to assist you as you get out
- **DO NOT** present a threat to officers. Law enforcement must assume everyone is a threat.
- **DO NOT** point at them or the shooter, make quick moves, run toward them, scream, yell or have anything in your hands
- **DO** raise your arms, spread your fingers, and spread arms and legs!

USM TRAINING VIDEO FOR THE ACTIVE SHOOTER SITUATION "SHOTS FIRED!"

- [Active Shooter Situation Training Video \(yuja.com\)](#)

[Active Shooter Situation Training Video \(yuja.com\)](#)

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