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# DESIGNING A CURRICULUM IN ACTIVE SHOOTER BEHAVIORAL INDICATORS FOR STUDENTS IN INSTITUTIONS OF HIGHER EDUCATION IN THE STATE OF NEW JERSEY

**BY**

**DAVID J. SIEROTOWICZ**

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Submitted in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education
Seton Hall University
July 2019

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**SETON HALL UNIVERSITY**
**COLLEGE OF EDUCATION AND HUMAN SERVICES**
**OFFICE OF GRADUATE STUDIES**

# APPROVAL FOR SUCCESSFUL DEFENSE

**David Sierotowicz** has successfully defended and made the required modifications to the text of the doctoral dissertation for the **Ed.D.** during this **Summer Semester 2019.**

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## ABSTRACT

The research in this study was conducted to explore proactive preventative measures to address the increasingly violent problem of active shooter scenarios for institutions of higher education within the State of New Jersey. Colleges and universities pose a unique threat when assessing risk factors, as these venues are open and, as a result, do not afford substantial protection against a violent assailant. The State of New Jersey has traditionally embraced a reactionary model of response, learning from past incidents and adjusting necessitated tactics accordingly. Active shooter training has become commonplace on college campuses in the State of New Jersey, and each institution is mandated by the state attorney general's office to have a response policy specific to their venue. The law enforcement community, in conjunction with higher education administrations, have effectively organized comprehensive response protocols for an active shooter scenario. Unfortunately, current plans in a higher educational environment, are limited to reactive responses initiated after the initial act of aggression.

Current research has identified recognizable warning indicators and behaviors present in individuals that have conducted active shooting incidents in the past. This emerging research has the potential to guide a new proactive response methodology that is permeating the security mindset for college campuses. By identifying an individual that overtly manifests specific warning signs recognized by professionals from the study of past assailants, the possibility now exists for averting future incidents rather than simply reacting to them. By collating current research regarding warning behavior identification and using this information to create a contemporary higher education curriculum, individuals exposed to this material will essentially become force multipliers in the fight against future shootings.

Historically, violators of incidents of this nature emerge from the student population, suggesting that the peer group to which the attacker belongs are the community members most able to recognize these signs. Employing the framework developed by Stark and Lattuca (1997), the curriculum was carefully constructed with a focus on the undergraduate student population and designed for optimal learning by college students entering higher educational facilities in the State of New Jersey.

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I would like to express my deepest appreciation to Dr. Finkelstein, my dissertation advisor and mentor. Your time and guidance has enabled me to complete this project with continued motivation and enthusiasm throughout the entire process.

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## Dedication

This work is dedicated to my wife Lauren and my children, Haley and Gavin. Your patience and understanding amazes me and allowed this milestone to be completed successfully. I can never thank you enough.

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# Chapter I

## INTRODUCTION, PROBLEM, AND PURPOSE

### Introduction

Traumatic injuries and unnecessary loss of life that occurs in institutions of higher education during an instance of an active shooter or an active assailant pose a threat to innocent faculty, students, and staff. According to the Federal Bureau of Investigation, there have been 250 active shooter incidents between the years 2000-2017 with 2,217 casualties reported in the United States (Federal Bureau of Investigation, 2017). On average, almost 15 active shooter incidents occur each year. It should be noted that this number has dramatically increased since the turn of the century, with only one event occurring in 2000, resulting in seven reported casualties, and 30 incidents occurring in 2017 with 729 casualties.

When the focus turns to educational environments, 37 of these events from 2000-2017 have occurred at K-12 educational settings (14.8%), while 15 have taken place at institutions of higher education (6%). Although higher education reflects a small percentage of these occurrances, within this time frame, 68 people have been killed on college campuses in the United States in an active shooter incident, while 75 people have been injured ("2000 to 2017 Active Shooter Incidents", 2016). Campus security entities as well as local and state law enforcement are currently positioned in a reactive response role, and are fully prepared, using this methodology, to mitigate active shootings after they occur.

New Jersey's Attorney General Directive # 2007-01, created under the supervision of Attorney General Anne Milgram, dictates that policies must be established for an active shooter response at educational institutions in the State of New Jersey.

> Every law enforcement agency in the state shall have and maintain policies and procedures in the subject areas designated by the Attorney General to enhancing school security and safety: bomb threats; active shooter response; school lockdowns; school evacuations; and public information policies. (The State of New Jersey, Department of Law and Public Safety, 2007)

These policies and procedures focus on the aftermath of the event, but do not encompass training to combat the onset of an active shooter. Essentially, in the State of New Jersey, the law enforcement community is prepared to respond to an active shooter in a reactionary manner, but not prepared to mitigate the violent act before it happens, lacking a proactive component.

A recent Attorney General Directive, 2016-7, issued in March of 2018 by current New Jersey Attorney General Gurbir S. Grewal, suggests that a proactive mindset is essential to combat violent incidents of this nature in our schools within the State of New Jersey (The State of New Jersey, Department of Law and Public Safety, 2018). This 2018 New Jersey directive instructs law enforcement that in cases where information indicating violence in a school setting of any kind in New Jersey is received, this information must immediately be provided to the New Jersey Department of Homeland Security for further investigation. The directive was initiated in the wake of the shooting at the Marjory Stoneman Douglass High School in Parkland, Florida, in which 17 students were killed by a former student that had recently been expelled. This student

displayed signs indicating he possessed the potential for violence, even posting on a public website that he was going to be a professional school shooter (Chuck, Johnson, & Siemaszko, 2018).

Following the issuing of this directive, Attorney General Grewal further pledged to ensure the effectiveness of current reporting procedures for educational communities, "when there are warning signs that a student or other person may intend to harm students or educators" ("Attorney General Grewal Issues Law Enforcement Directive", 2018, para 8). This statement by New Jersey's highest-ranking law enforcement official acknowledges the need to expand and engage in contemporary strategies when confronting an issue of this magnitude. This directive, if then supplemented with proper education in the higher institution community of warning behaviors, can provide a basis for productive change in the fight against casualties resulting from active shooters on college campuses.

## Background

Throughout history, active shooter scenarios on college campuses have proven extremely dangerous and deadly. One of the earliest active shooter incidents in the United States occurred at the University of Texas, in Austin, Texas on August 1, 1966. In this incident, Charles Whitman, a student at the university as well as a former marine, ascended to the university's clock tower in the middle of campus carrying an arsenal and intent on harming innocent bystanders. Police and private citizens, armed with firearms, descended on the campus in an attempt to mitigate the violence. This incident lasted approximately 95 minutes, and its conclusion, 14 people were killed and another 31

wounded from Mr. Whitman's actions. This incident would mark the first mass shooting in an educational setting in the United States (Wallenfeldt, 2018).

Observations of the shooter, with 50 years of hindsight as a guide, offers a window into behavioral indicators overtly expressed before the incident. Mr. Whitman had reported severe headaches and was found, upon his autopsy, to have a large tumor on his brain. He killed his mother and wife before the campus attack, writing letters expressing he was unaware of his intentions for his killings, but was intent on committing this harm nonetheless. He also kept a detailed journal of his thoughts leading up to the shooting. "Whitman knew something was wrong with his brain. Before he set off on his rampage he left behind writings asking for an autopsy to reveal the source of his violent thoughts" ("Mind of a Rampage Killer", 2013). He had asked for an autopsy to be conducted on his brain as he perceived that his intentions were born from a sincere desire to kill.

On April 6, 2007, 40 years after the University of Texas killings, at Virginia Polytechnic Institue and State University, Seung-Hui Cho massacred 33 people on the university's campus. Cho had created a manifesto before the attack, posing with guns and empathizing with killers Eric Harris and Dylan Klebold, perpetrators of the infamous Columbine High School attacks in 1999. His history of mental illness was significant and chronicled by Virginia Tech counselors, mental health professionals, and classmates on campus (TriData Division, 2009). Cho's well-planned attack went so far as to include a plan to chain the doors to the campus's Norris Hall to ensure his victims would be unable to escape, and law enforcement would be unable to gain entry.

These two devastating incidents, occuring 40 years apart, depict the capacity for violence on a college campus in the United States. Both incidents suggest that methodology police use to mitigate events of this nature has generally remained consistent, involving a strict reactionary response. Advances in contemporary policing have continued to make great strides, but are still positioned to respond after the event has commenced. The goal historically has been to reduce injuries and loss of life through rapid, tactical response, implementing knowledge gleaned from past incidents, in conjunction with modern police equipment.

Contemporary law enforcement has adapted to these looming threats, becoming more organized, tactically sound, and better equipped with weaponry in their response to active shooter scenarios in the hope of lessening the outcome severity. Medical equipment such as tourniquets and pressure dressings is issued to officers performing emergency medical treatments on victims exposed to violent acts. Advanced firearms and tactical teams have been incorporated into current law enforcement strategies to deal specifically with events of this nature. College students and faculty receive training in protocols for active shooter scenarios. Law enforcement preparation and response have surpassed the tactics employed in 1966 at Texas University, and even those at Virginia Tech in 2007.

Despite the advancements described above, preparation for active shooter events remains reactive nature; plans are enacted only after the deadly incident has commenced. Due to the inherent nature of response modality, severe injury or death will continue to occur on college campuses if the current mindset does not adjust.

The Federal Bureau of Investigation released a study in June of 2018 on active shooter incidents from 2000-2013, focusing on pre-attack behavioral characteristics of shooters before the onset of the event (Silver, Simons, & Craun, 2018). This study was conducted in reaction to the 30 active shooter incidents in the United States all occurring in 2017, the most significant number recorded nationally in one year. The mindset behind the study was to change the traditional view that active shooters snap or "go crazy" and commit a violent act. This mindset leads to hopelessness in the fight against active shooter incidents because mitigation would therefore always be reactionary. The FBI study findings were significant as they bear the markings of a prevention mindset, suggesting that it is possible to uncover warning signs overtly displayed by the shooters before the event. Silver, Simons, and Craun remarked, "By articulating the concrete, observable pre-attack behaviors of many active shooters, the FBI hopes to make these warning signs more visible and easily identifiable" (2018, p. 6). The FBI focused on what happened before the attack to attempt to identify individuals on a course towards violence.

One of the significant findings of this study, which examined 63 incidents between 2000 and 2013, identified that active shooters experienced multiple stressors before the shooting (Silver, Simons, & Craun, 2018). These stressors included mental health issues, interpersonal conflicts, financial pressures, substance abuse, and many others. It should be noted that a mental health stressor can merely be defined as a depressive mood, anxiety, or paranoid behavior and does not necessarily refer to a clinically diagnosed disorder. Of these stressors, it was noted that active shooters experienced an average of 3.6 stressors within the year preceding the attack.

Another interesting finding gleaned from the study was that each shooter displayed four to five risk behaviors that were overtly observable to those around them. Concerning behaviors are defined as behaviors openly exhibited by shooters prior to the incident that are observable to others. Most prevalent of these concerning behaviors were leakage, in which a killer communicates their intent to harm to a third party. Other concerning behaviors were identified as troubled interpersonal conflicts, mental health issues, school or work performance decline, aggression, violent media usage, and change in appearance including hygiene and weight. These concerning behaviors were observed through various means to include verbal communication, physical actions, written communications, and online conversations. It should also be noted that the majority of active shooters crossed venues and displayed these concerning behaviors in multiple ways (Silver et al., 2018).

Another significant finding of the study was that active shooters were not, as traditionally believed, loners. Almost three-quarters of those studied lived with another person, while the majority had regular interactions with others daily one year before the attacks. This is a crucial finding in the sense that these behaviors—if peer groups in college communities are taught to identify them—can identify a potential shooter before this person commits a heinous act.

## Statement of the Problem

College campuses are uniquely dangerous in violent situations due to their nature as open venues. A complex organizational structure paints a clear distinction between a university and a primary or secondary school encountering shooting scenerios. One cannot merely close the doors to a college to shut out a violent offender. Individuals

cannot be screened before entering college campuses, nor can univerities be completely sealed prevent violators from accessing them. Security guards and magnetometers cannot protect students at an institution's points of ingress due to the domain landscape. Considering these particular characteristics of college campuses, it is necessary to target the potential for active shooter events at these sites in a progressive manner. The ability to mitigate an active shooter event before its onset is essential to ensuring the adequate safety of the students, faculty, and administration on campus.

Research in the form of historical case studies suggested that early indicator warnings are present and observable in advance of active shooter incidents, yet viable behavioral indicators of students with a propensity for violence often go undetected in higher educational environments. Government entities including the Federal Bureau of Investigation, United States Secret Service, and United States Department of Education have conducted research to this effect. Each study has concluded behavioral warning indications are often present and detectable before the assault and as a result, disruption of an attack is possible.

The disconnect lies in limited access to pertinent information that can offer safety to college campuses. By presentating this information to those in a position to effect change can interrupt this process. A study conducted by the United States Secret Service in conjunction with the United States Board of Education revealed that in 93% of the cases studied, the perpetrator’s peer group, including friends, classmates, and siblings, recognized warning behaviors in active shooter cases (Pollack et al., 2008).

Although the findings of these studies are publicly accessible, training modules catered towards the identified population, peer groups of students in higher education

communities in the State of New Jersey, have yet to be developed and implemented. As a result, the available information does not reach the community best equipped to effect change. Early intervention involving dissemination of these indicators via course curriculum to higher education students in the State of New Jersey could result in the mitigation of these tragedies before their onset on college campuses.

## Purpose of the Study

The purpose of this study is to view this "active shooter" on campus problem from a fresh perspective and attempt to collate and organize pertinent information access through which broader campus communities can mitigate these events before their onset. Through acquisition of behavioral indicators of violators that committed mass shootings throughout history, a depiction of observable conduct before an attack can be developed. It is essential for law enforcement to not only effectively respond to these critical incidents once they have occurred, but to find new ways to combat active shooter incidents before their initiation. Due to the inherent danger of college campuses and the reactionary nature of typical responses to critical events, a fundamental gap emerges. It is therefore the responsibility of law enforcement, working in conjunction with the higher education community, to devise more effective methods of prevention to keep students secure.

By collating and synthesizing all available behavioral indicators observed in prior active shooter incidents, a curriculum for new students to college campuses can be created. This curriculum will make students aware of the nature of behavioral indicators of campus violence, and enhance their detection abilities in their educational

environment. This curriculum would also enable the dissemination of this information to students, the population best able to observe these visible indicators.

The law enforcement community, in combination with the medical wellness professionals, are starting to compile "guides" and behavioral signs based on extensive research into school shooting cases. Publications such as the Federal Bureau of Investigation, "Study of Pre-attack Behaviors of Active Shooters in the United States between 2000-2013" (Silver, Simons, & Craun, 2018), and the United States Secret Service's research, "Safe School Initiatives" (Drysdale, Modzeleski, & Simons, 2010), are advancing an emerging field geared towards proactive methodology. There remains, however, a glaring disconnect, as this information is not necessarily reaching the front lines of the New Jersey educational community. Armed with this information, it becomes increasingly vital that it is disseminated in the proper format to our students promptly. The purpose of this study is twofold: (1) to collate and synthesize the behavioral indicators or warning signs of individual that may commit a mass casualty incident in a college setting, and (2) to establish a curriculum to disseminate this information to students of higher educational institutions in New Jersey.

It is essential to note the critical characteristics described are common to active shooters in all venues. Even if a historical incident did not take place in higher education setting, the identified characteristics of persons possessing an ability to conduct these violent acts remain significant regardless of location.

## Guiding Questions

Question #1: What is a desirable curriculum module to facilitate the education of college students in behavioral indicator commonalities exhibited by perpetrators before active shooter events, thus enabling these students to act preemptively prior to an attack?

Question #2: What content and instructional processes should be included in the curriculum module to create the most effective curricular design for the target learner population of students at higher educational institutions?

## Significance of the Study

The knowledge provided to the students within a curriculum based on credible indicators from past attacks could prevent potential future attacks from occurring. This method could reduce or positively transform police response, minimizing exposure of the higher education community and responding officers to violent confrontation. Behavioral indicators of active shooters, observed up to a year before the attack, have begun to be collected by federal law enforcement agencies including the Federal Bureau of Investigation and the United States Secret Service. Unfortunately, a disconnect has been observed between the collection of this valuable information and its dissemination in a palatable and constructive manner to target populations on New Jersey campuses. With all of the current research available, there still has been no effort to bridge the gap between behavioral risk indicator identification and dissemination of these indicators to the student population of New Jersey college campuses. Through the insights they derived from the curriculum, students would be armed with the ability to promptly report

this behavior to authorities or campus officials before an attack takes place, perhaps putting a stop to the killing.

# Chapter II

## REVIEW OF PERTINENT LITERATURE, RESEARCH, AND THEORY

### Introduction

The literature review is comprised of two main components, which are intended to guide the attainment of the final research objective, a dynamic and impactful course curriculum. The first component of the literature review contains an overview of the current literature available on active shooter behavioral indicators displayed prior to the onset of an attack. This includes historical reforms in active shooter response from a law enforcement perspective, current threats posed to higher education related to active shooters, and a review of active shooter cases relevant to higher education. Also included in this component is the basis for arguments favoring a proactive model versus a reactionary response, and pertinent research relating to the identification of attributes overtly recognizable in active shooters prior to an attack.

The second component of the literature review delves into factors related to student learning that must be addressed when developing a college curriculum. Included in this portion is Stark and Luttuca's (1997) framework describing the elements of a college curriculum, and a contemporary profile of a college student in the State of New Jersey. Also explored is the existing structure of college orientations in an effort to establish parameters for logical implementation practices of this curriculum within a college setting. Current implementations of similar curriculum formats are also examined.

Active shooter events have unfortunately been the cause of multiple injuries and deaths on college campuses in the United States. Contemporary law enforcement must continue to evolve to ensure the safest possible environment for the citizens that they are responsible for protecting in institutions of higher education. Current law enforcement tactics for active shooters on college campuses in the State of New Jersey are predominantly reactionary. Reactionary methods should be supplemented with strategies that are proactive and can potentially avert an assault before its commencement, avoiding further casualties from occurring.

Recent research points to the interruption of attacks through the recognition of behavioral indicators of assailants prior to the offense. As a result, relevant studies regarding the identification of behavioral indicators of active shooters will be carefully examined. Once analyzed, collated, and synthesized, the intended outcome is the formulation of a course curriculum for college students in the State of New Jersey drawing on common elements and themes from this research. It is therefore necessary to also examine the information processing theories centric to the identified population of college freshman students. Finally, the essential elements of a successful course curriculum will be studied.

The final result of the research topics would, therefore, be the construction of a practical course curriculum for college students in the State of New Jersey regarding the recognition of behavioral indicators of active shooters. This curriculum will provide the bridge and resulting integration between information available on this topic and its dissemination to the population best equipped to effect change on college campuses.

## Background

FBI analysts have revealed the alarming rate in which active shooter casualties have spiked since the turn of the century (Federal Bureau of Investigation, 2017). Reviewing Figures 1 and 2, it is alarmingly evident that the current reactionary policing tactics, which are intent on saving lives, should be supplemented with more proactive strategies. Figure 1 illustrates the number of active shooter incidents in general from 2000 to 2017, while Figure 2 depicts the casualties from active shooters in the United States from 2000 to 2017.

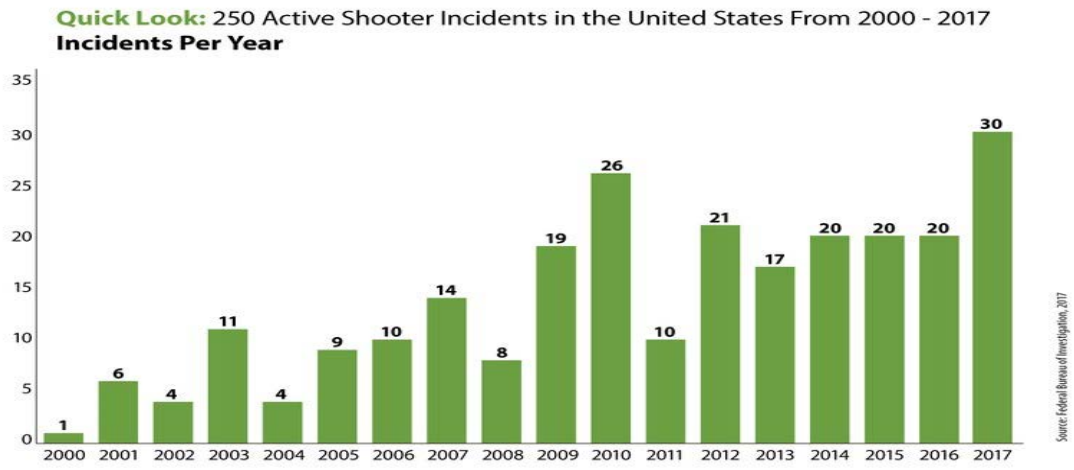


*Figure 1.* Active Shooter Incidents in the United States From 2000-2017 (Incidents Per Year).
2000 to 2017 Active Shooter Incidents, 2017, retrieved from https://www.fbi.gov/about/partnerships/office-of-partner-engagement/active-shooter-incidents-graphics Copyright 2017 by the Federal Bureau of Investigation.

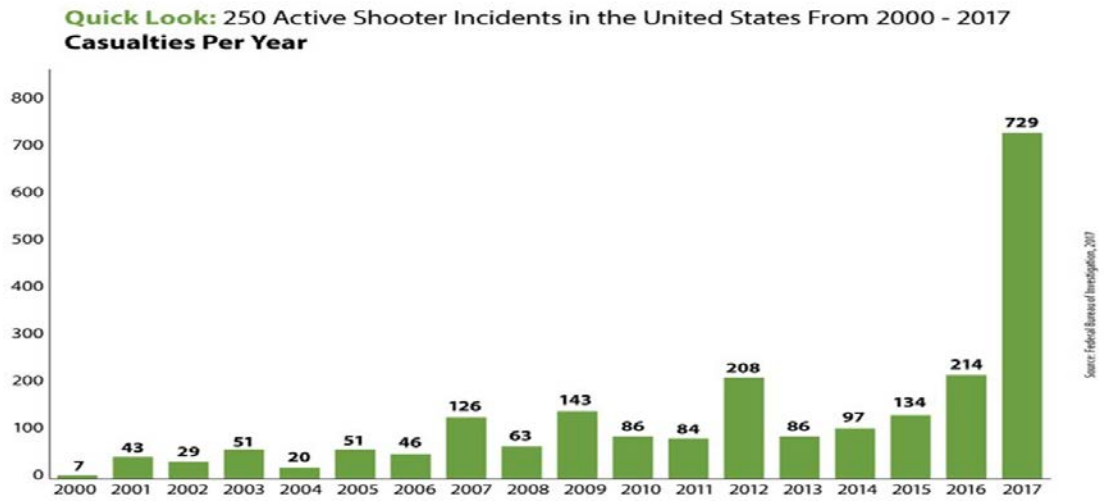


*Figure 2.* Active Shooter Incidents in the United States From 2000-2017 (Casualties Per Year).
2000 to 2017 Active Shooter Incidents, 2017, retrieved from https://www.fbi.gov/about/partnerships/office-of-partner-engagement/active-shooter-incidents-graphics Copyright 2017 by the Federal Bureau of Investigation.

In September 2014, the FBI released a study of the pre-attack behaviors of active shooters in the United States between the years of 2000-2013. Behavioral analysts carefully studied the personal characteristics of all attackers as reported by those closest to them before the attacks. Their findings indicate that these critical events can be potentially derailed before their onset with proper training regarding the recognition of these behavioral traits.

> There is cause for hope because there is something that can be done. In the weeks and months before an attack, many active shooters engage in behaviors that may signal impending violence. While some of these behaviors are intentionally concealed, others are observable and — if recognized and reported — may lead to a disruption prior to an attack. (Silver, Simons, & Craun, 2018, p. 4)

According to the New Jersey Department of Health (2018), behaviors and communications that have been associated with violence in the past are the most influential predictors of future violence. Some historical risk indicators that have been identified through prior incidents include but are not limited to the following:

- Suicidal thoughts
- Paranoid Behavior
- Domestic problems
- Extreme stressors from a college environment
- Previous episodes of violence
- Empathy with other individuals that have committed violence
- Unsolicited comments about violence
- Outward rage or anger towards others
- Withdrawing from your current community structure (i.e., college institution)
- Changes in mood / or outward appearance

On April 16, 2007, Virginia Tech senior Seung-Hui Cho killed 33 people on the campus of Virginia Polytechnic Institute and State University, making this active shooter incident the most deadly at a U.S college to date. In the aftermath of the event, it was learned that Seung-Hui Cho presented overt signs of mental instability before the shooting to those around him and to medical professionals on campus. He was described by his classmates as a loner, and had a history of writing dark poems and plays in his creative writing class, which caused his professor to encourage him to seek counseling. He was also removed from another class by a professor for photographing females legs and knees in class, and was accused twice of stalking fellow female students. Cho was

further mandated to receive court-ordered counseling after uttering a suicidal statement to one of his roommates ("Seung-Hui Cho", 2014). Just prior to his murderous rampage, Cho mailed documents to NBC news in New York. Within these documents were videos discussing his intentions and photographs of himself posing with various weapons and ammunition. This manifesto was haunting, professing his perception of his current environment and his imminent plans to conduct his attack.

> You had a hundred billion chances and ways to have avoided today, but you decided to spill my blood. You forced me into a corner and gave me only one option. The decision was yours. Now you have blood on your hands that will never wash off, you Apostles of Sin. ("Killers Manifesto", 2007, para. 3).

This incident shone a light on the security emphasis of the higher education community on the response aspect after the initial onset of the incident. Faculty and administrators were traditionally taught to follow reactionary institutional policy in an attempt to avoid further loss of life or injury. This response protocol was dictated by the local police department in conjunction with campus administration, police, and security. The law enforcement community was predominantly trained on immediate actions to be taken after an active shooter incident was reported in their area of responsibility.

This response protocol has continued into 2018. Looking at several campus website, such as those of Ocean County College and Camden County College, the "Run, Hide, Fight" technique is displayed ("Campus Security", n.d). The New Jersey State Office of Emergency Management continually teaches response protocols to the higher education community requesting this training. Embedded in this course of instruction are directions on how the campus community should react and respond in the event of an

active shooter (Gorman, personal communication, June 22, 2018). The problem lies in the focus of not only the higher education community, but of all of the entities involved with preserving the safety of educational institutions in New Jersey on predominantly reactionary active shooter mitigation strategies.

## Definition of an Active Shooter

To assess the pre-attack behavioral indicators of an active shooter one must first clearly define what an active shooter is. This terminology has been agreed upon by the White House, the United States Department of Justice, the United States Department of Education, and the United States Department of Homeland Security. The term active shooter is defined as " an individual actively engaged in killing or attempting to kill people in a confined and populated area" (Blair & Schweit, 2014). Embedded in this definition is the idea that the instrument the assailant uses to kill is a firearm. Perhaps for this reason, the term "active assailant" surfaced within the law enforcement community, although a formally accepted as a definition has yet to be accepted by all governmental agencies (Blue, 2008). "Active assailant" incorporates the same characteristics of an active shooter, but without the use of a firearm in the killing methodology. This term has surfaced out of necessity, as many attacks that contemporary law enforcement have confronted involved alternative means of perpetration.

## Unique Threat to Higher Education

Higher education institutions pose a unique threat absent in other educational environments. In a high school setting, the proximity of teachers, classrooms, and the student body, foster daily interactions with members of the learning community. This

proximity enables identification of behavioral changes in individuals in the closed environment. At institutions of higher education, campuses are more extensive, and students' schedules may not coincide. These factors make identification of potential risk behaviors more difficult, but also vastly critical at the same time.

Due to the nature of higher education environments, students are thrust into new situations where their educational and residential settings are merged into one. Inhabiting a new environment can increase the likelihood of triggering violent incidents due to increased stressors (TriData Division, 2009). Other students living in and exposed to this same environment can be viable observers of harmful behavioral characteristics. Students' professors, less closely connected and exposed to the student than primary and secondary school teachers, are not as well positioned to identify the same behaviours.

College campuses also pose a unique threat with respect to the physical environment surrounding the institution. Many commercial venues along with primary and secondary schools can be controlled at access points, allowing for tighter security that results in a safer overall location. Security guards at entrance points and use of magnetometers to search for weapons before entry increase the likelihood that threats will be detected. Most colleges, however, are open venues, which impedes control at ingress points and decreases the feasibility of screening of members of the educational community and visitors to the institutions. Therefore, due to these geographical aspects of college campuses, traditional security measures to combat this problem cannot be implemented due to fiscal constraints and physical impediments.

## History of Law Enforcement Response and Resulting Reforms

Critical historical law enforcement advancements are evident in reactions to past active shooter events. Pivotal changes have been made following the recommendations of after-action reports and law enforcement collaboration regarding the optimal course of action for future occurrences. Three of the vital reforms to police operations will be discussed in the paragraphs that follow.

On April 20, 1999, at Columbine High School in Columbine, Colorado, two shooters, Eric Harris, and Dylan Klebold, killed 12 students and one teacher in their assault on the school. Officers responding to the incident relied on their previous training and summoned advanced tactical teams to assess the situation and mitigate the source of the violence. Hesitation of responding patrol officers delayed critical help to those trapped in the school, and was subsequently blamed for the further loss of life. Police tactics changed out of necessity, and law enforcement officials have since mandated immediate entrance to active shooter situations (Blue, 2018). Planning for future attacks was therefore centered around the quick response of officers to an environment in which an active killing event was occurring, even in the absence of advanced tactical officers, to prevent further casualties.

On April 16, 2007, Seung-Hui Cho killed 33 people and wounded 17 on the campus of Virginia Polytechnic Institute and State University, in Blacksburg, Virginia. During the incident, Cho chained the doors to the Norris Hall, delaying officer response due to their lack of the ability to breach the doors, as his killing continued. This was another pivotal advancement in law enforcement response, and in many departments, tools to breach doorways are now essential equipment in patrol cars. In June 2008, in a

safety recommendation for the higher education community in their state, the Massachusetts Department of Higher Education recommended that “schools should ensure that the campus police department has the equipment necessary to gain forcible entry into locked buildings and classrooms” (O'Neil, Fox, DePue, & Englander, 2018).

On December 14, 2012, at the Sandy Hook Elementary School in Newton Connecticut, Adam Lanza shot and killed 20 children between the ages of six and seven. Post evaluation of this incident revealed valuable time was lost in awaiting a medical response for victims as emergency medical technicians were prevented from entering an active and dangerous zone. Following this incident, law enforcement was supplied with medical response equipment to alleviate the further loss of life (Blue, 2018). Police departments began training their officers in the application of combat medical procedures to provide a pathway to survival for victims in the absence of medical professionals.

Each of these implementations has proved essential in enhancing law enforcement response to active shooter events, and were developed through the close evaluation of the three decisive moments in law enforcement history described in previous paragraphs. These advancements, all central to the implementation of reactionary tactics, can be taken a step further. Contemporary research holds promise that further progressive modifications to this complex and challenging problem, including identification of a potential shooter before the initiation of the event, can potentially save lives.

## The Recognition of Pre-Attack Indicators

Recent FBI studies of active shooter events from 2000-2017 have uncovered “pre-attack behaviors” exhibited by the suspect that have continually surfaced in evaluations

of these incidents from a holistic viewpoint. That is, not merely the reactionary response of the shooting incident, but the actions of the shooter before engaging in this type of behavior. This discovery is currently shaping the security community response today, and will most likely be viewed as another pivotal moment for law enforcement regarding active shooting events. The fundamental difference, however, in this advancement is the first glimpse of a proactive movement, a groundbreaking moment for the security community at large. Behavioral identification can potentially mitigate events prior to the onset— a sharp contrast to prior law enforcement methodologies. Behavioral indicator awareness tactics can be employed before the commencement of the event, effectively saving lives before a weapon is even brandished (Blue, 2018).

Kurt Lewin, a psychologist whose purpose was to focus on psychology in correlation to the philosophy of science, created Lewin's Equation for behavior (Ajzen,1985).

$$B = f\ (P, E)$$

This equation states that behavior ($B$) is a function ($f$) of the person ($P$) and environment ($E$). A person's overt behavior and development as a human is a product of their genetic composition and their environment. The environment is defined as what they are subjected to in the world around them. In other words, a person's behavior is composed of both nature and nurture characteristics.

Embedded in this concept is the theory that a person's behavior is shaped by their goals or objectives, which ultimately drive behavior (Psychology Notes HQ, 2013). This behavior is enhanced by an individual's perception of a situation rather than the reality of

the situation they are inhabiting. For example, if an individual perceives that his or her peers are not accepting of their appearance, this perception may subsequently drive a particular behavior. These resulting behaviors may manifest as potential indicators of future violent actions.

Based on the validity of this theory, it becomes apparent that it is essential to correlate research on behavioral characteristics of active shooters. The paradigm from which a person views their environment can lead to the overt manifestations of indicators predictive of their future actions.

Valuable information regarding behavioral indicators of active shooters is increasingly available from current research in the field. In spite of its widespread availability, this information is not actively delivered through a course of instruction to the audience with the greatest power to effect change in our higher education community in the State of New Jersey. By thoroughly researching available information regarding behavioral indicators and research exploring effective methods of instruction in higher education, behavioral indicators curriculum can be successfully implemented, leading to a positive impact on this community.

The necessary link in this process is the education of those in a position to implement this method. Law enforcement and higher education can identify traits common among active shooters, but this information must be effectively conveyed to those in a position to observe these traits, the students on campus.

## Federal Government Mandates

Current mandates for higher education institutions regarding training and reporting protocols to promote crime reduction on campus are derived from current federal laws. These include Title IX, the Clery Act, and the Violence Against Women Act (VAWA).

Title IX, signed into law in 1972, was the predecessor of the VAWA Act, and mandates training be available at schools concerning criminal sexual acts ("VAWA, Title IX, and Clery Training", n.d). This act also protects discrimination in any way at an institution of higher education based on sex. Starting in the fall semester of 2018, students at Harvard University will now be required to enroll in and complete Title IX training prior to registering for classes. Through this mandate, the university has made gender-based violence and gender discrimination education a priority for its students (Halper, 2018).

The Clery Act, instituted in 1990, mandates that institutions receiving financial aid from the federal government provide prevention and awareness programs on sexual assaults, domestic violence, and stalking (Warren & Williams, 2017). This act also mandates the collection of criminal statistics related to rape, sexual assault and several other crimes committed on campus.

VAWA was signed into law in March of 2013 by President Barack Obama, and required colleges and universities in the United States to report dating violence and advise victims of abuse of their rights. VAWA also serves to "adopt certain institutional policies to address and prevent campus sexual violence, such as to train in particular

respects pertinent institutional personnel”(“VAWA, Title IX, and Clery Training”, n.d, para. 1). The training must include the recognition of signs of abusive behavior and the mitigation or avoidance of a potential sexual attack. This training is not standardized, nor does the federal government provide a template for institutions.

Each college campus is required under the Occupational Safety and Health Administration (OSHA) to create and train an emergency response plan to include a vast array of emergencies that could occur on campus (About OSHA, n.d). This emergency response plan includes active shooter protocols.

## New Jersey Campus Security Task Force

After the Virginia Tech shooting in 2007, it became apparent that there was no sole agency in New Jersey dedicated to collecting and housing emergency response protocols of college campuses. Each institution of higher education was able to establish the level of security that they deemed appropriate. Therefore, it was difficult to gauge the emergency readiness of college campuses as there was no benchmark or precedent to follow.

Governor Jon Corzine established the New Jersey Campus Security Task Force in the aftermath of the Virginia Tech shooting to shed light on the potential vulnerabilities on New Jersey campuses (“Task Force”, 2007). It is important to note that the mandate of the task force was not to develop new legislation, provide mandates or protocols, or to grade current procedures, but merely to suggest best practices for institutions.

Each of New Jersey’s 59 colleges and universities was urged to consult the threat and vulnerability assessment tool provided by the Department of Homeland Security in

conjunction with the International Association of Campus Law Enforcement Administrators. This tool could be used to conduct assessments of campuses, and establish potential threats and vulnerabilities. The New Jersey Office of Homeland Security collected these response protocols for review to ensure that each college had created a plan encompassing all emergency response protocols, including active shooter response. Another important aspect of this report was its encouragement of universities and colleges in New Jersey to open security communications with their local and county law enforcement agencies.

One new aspect of the task force was the establishment of a mental health awareness subcommittee. Within this subcommittee, members looked to create further awareness of mental health issues that may affect individuals at higher education institutions and to provide information regarding the accessibility of mental health services to students and faculty. Recommendations were made to the institutions of higher education to "provide mental health awareness training to students, faculty, and staff to increase awareness of mental health issues facing campus community members" ("Task Force" 2007, para 6). This subcommittee within the task force was a step in the right direction regarding early intervention with students who may possess the potential to act violently. It was also the first time in New Jersey that we began to approach the problem from a perspective other than reactionary. This subcommittee allowed for a recognition in the State of New Jersey of the need to address pre-attack indications before the deadly act is committed.

## New Jersey Institutions of Higher Education Reactionary Plans

In the State of New Jersey, university police, campus security, and institutions administration ensure organizational alignment with the aforementioned federal acts and abide by national reporting and training standards. New Jersey institutions have also been progressive in implementing extensive training on active shooter protocols on college campuses.

In response to the 2007 Attorney General Directive established by Anne Milgram, New Jersey's institutions of higher education all possess active shooter response plans, with the majority of them practicing these plans regularly. New Jersey's College and University Public Safety Administration (CUSPA) meets monthly to discuss security initiatives and best practices on college campuses, often focusing on the topic of active shooters (Giardino, personal communication, July 18, 2018). The New Jersey State Office of Emergency Management further instructs college security professionals as well as the higher education community on what actions to take once an active shooter has begun (Gorman, personal communication, June 27, 2018). Local and county law enforcement agencies assist in the maintenance and training of plans of action for campuses within their areas of responsibility.

A sampling of four universities in the State of New Jersey provides an overview of the active shooter response plans that have been established at various universities and college campuses. Rutgers**,** the state university of New Jersey, has almost 70,000 students, as well as 24,000 faculty and staff members ("Fact and Figures", 2018). Rutgers has three main campuses located in New Brunswick, Newark, and Camden. Rutgers employs a full-time police force and participates in active shooter training regularly. The

office of emergency management website for the campus lists reactionary steps to be taken in the event of an active shooter incident on campus. These include taking immediate cover, running from unsafe locations, and instructions for reporting to authorities when calling 9-1-1 (“Rutgers Office of Emergency Management”, 2018).

Saint Peters University has approximately 3500 students in addition to over 300 faculty and staff members. There are two campuses located in Jersey City and Lyndhurst (“Saint Peter’s University”, 2018). Saint Peters employs a campus security office, which works closely with the Jersey City and Lyndhurst Police Departments and the Hudson County Sheriff's Office. All entities train in their response plan together regularly including response tactics in large-scale drills on campus (Torre, personal communications, October 5, 2018). Active shooter response is taught to students and staff according to a run, hide, fight methodology. Tactics to employ when and if confronted by an active shooter are provided in a quick reference table format for students and faculty during training.

Montclair State University is located in Montclair New Jersey and has over 21,000 students and approximately 1500 faculty and staff members. Montclair State University employs a full-time police department and houses and emergency operations plan for an active shooter. Students and staff are trained and taught by the police department. Garcia (2018) summarizes the training as follows: “The University Police Department also provides training in active shooter response for any organization or department that is interested, but faculty and residence life staff are required to do the training, so they are well-prepared if an incident were to happen during a class or in a residence building”.

The college's website provides a useful practice for reaching the staff and the student body with respect to the visibility of active shooter training. One model template displayed on Kean University's website offers response information for actions that staff, students, and other employees should undertake once an active shooter has begun ("Emergency Management", 2018). Links to active shooter resources, to include the college response plan and response dramatization, are included in site.

It is important to note that the active shooter video provided on their website states that police will not be seconds away from responding once called to the scene, and at best, will arrive within minutes. This brings to light a critical component often overlooked in active shooter incidents from the current security perspective. Campus police in close coordination with municipal police and local and state police are positioned in response mode, and will arrive only after receiving a 9-1-1 call notifying them of the event. They must then drive to the location, exit their vehicles, enter the campus, and locate the shooter.

Reviewing available resources for preparing for an active shooter in an incident on a college campus within the State of New Jersey, it is apparent that contemporary active shooter training and messaging at institutions of higher education in the State of New Jersey is initiated after the onset of a critical incident. These plans, universal across universities in New Jersey, consist of response preparation and protocols to be followed once an active shooter event has begun.

## Response Plan in Action

The reactionary stance of higher education institutions can and has been effective in the mitigation of violent attacks after their onset. Ohio State University was the site of a ramming-style vehicle attack and subsequent knife attack by a lone assailant in 2016 . The Ohio State Campus police had established strict response protocols and regularly trained in these protocols before the attack, creating a state of readiness similar to those of New Jersey institutions.

In the Ohio State attack, Abdul Razak Ali Artan, an 18-year-old student enrolled at the institution, borrowed a family member's Honda Civic and arrived at the university at 9:52 a.m. He traversed a curb adjacent to Watts Hall, Ohio State's chemical engineering building, ramming into a crowd of students on their way to class. After his vehicle was rendered inoperable due to the impact of a concrete wall, Artan exited his vehicle to continue his attack. He brandished a butcher knife purchased at Walmart earlier that morning, and began to slash innocent students wildly. At 9:53 a.m., one minute after the attack had started, Officer Horujko, a member of the Ohio State University Police Department, responded to the scene and successfully mitigated the threat by discharging his service weapon and killing the suspect (NYPD Shield, 2016). This attck was a deliberate domestic terrorist attack that occurred within the confines of a college campus, which was successfully subdued within one minute.

Procedures and tactics, jointly established by university administrators and law enforcement before this incident, enabled a timely, efficient response to this situation. Michael V. Drake, the university president of Ohio State, remarked after the attack, "We prepare for situations like this but always hope to never have one" (Smith, Perez-Pena, &

Goldman, 2016, para. 26). The police response to this critical incident was expedient and efficient, ultimately saving the lives of countless students. The response technique mitigated loss of life or further injuries to students and faculty at Ohio State, but did not stop the event before the onset. Even with an incredible response time of 60 seconds, multiple students were injured in this incident, and a lingering fear of future attacks remains prevalent on campus. Using Ohio State's event as a model response, it is apparent that injuries or loss of life will continue to be incurred when the problem is viewed from a strictly reactionary standpoint.

## Move Towards a Proactive Model

To date, no personal profile of an active shooter or active assailant has been assembled, and there is currently no way—based on a person's physical attributes—to recognize this person in a crowd. There is demographic, race, religion, or age that can be used to predict the identity of the next active shooter. It should be noted that according to the FBI, the majority of shooters have been males, but this demographic alone is not considered an indicator of an assailant (Federal Bureau of Investigation, 2018). However, there have been advances in the mental health discipline that can lead us to probable risk behaviors indicative of violence.

Swanson (2008) reflects on the fact that medical doctors cannot predict who will become the next victim of a heart attack or a stroke with precise methods. Medical doctors can, however, observe warning signs that may lead to a heart attack, such as high blood pressure, smoking and being overweight. Doctors can then utilize this information to attempt to intervene when these indicators are observed in a patient. Although the mental health discipline is not currently as accurate as the medical profession, advances

have been made that can assist in predicting violence. Swanson (2008) asserts, “To be clear: clinicians can actually predict violence with reasonable certainty” (para. 9). These predictors, established based on observed behaviors and communications, have been gleaned from structured risk assessments of prior violent persons. Information extracted from this research—behavioral indicators of active shooters—could then be disseminated to target populations, and serve as a proactive measure to mitigate future violent incidents.

According to the New Jersey Department of Health (2018), “The next active shooter is already in progress; you just haven’t heard about it yet” (slide 12). If this statement is correct, and the next active shooter is currently planning his crime, then behavioral indicators exhibited by the perpetrator should be visible in some form before the attack. Violence should be viewed as a process rather than an event that occurs suddenly. With this mindset, violence can potentially be identified within the period of escalation towards heinous acts.

In 2008 and as a direct result of the Virginia Tech shooting, the Massachusetts Department of Higher Education conducted an in-depth study of their state's institutions of higher education and their present capabilities in addressing attacks on their college campuses. Through surveys of college preparedness plans, the state found that the majority of institutions did not train their college communities on identifiable risk factors consistent with an individual capable of violence. The department therefore recommended that faculty and staff receive training in the identification of at-risk students, in addition to the identification and subsequent reporting of violent fantasies expressed in verbal or written forums (ONeill et al., 2008).

Studies of this nature, centering on observable behavioral indicators, have been conducted by the FBI and by other government entities in the aftermath of critical incidents. These studies have uncovered behavioral signs, present prior to attacks, which could be leveraged by the higher education community to prevent future attacks. Throughout the past 30 years, law enforcement professionals, through cooperative and comprehensive case studies, have improved their abilities to predict indicators of this violent behavior. The information derived from this research could enlighten the educational community in New Jersey and provide valuable insights into the identification of these indicators. Unfortunately, a platform for disseminating these fundamental behavioral risk indicators has yet to be created for institutions of higher education in New Jersey.

According to the FBI, educational facilities have been the site of active shooter events in 20.8% of the total incidents occurring betweed 2000 and 2017, with 6% of these incidents, or 15 events, occurring at institutions of higher education (Federal Bureau of Investigation, 2017). This is illustrated in Figure 3, which depicts the proportions of active shooter incidents that have occurred across various locations in the United States. This figure demonstrates that despite prevaling illusions of safety at higher education institutions, these venues have not been immune to active shooter incidents in the United States. This statistic, coupled with geographic characteristics of colleges and universities leaving them vulnerable to future incidents, unearths a need for a strategy to combat this violence not strictly from a reactionary sense, but from a proactive stance to prevent future occurrences on campuses.

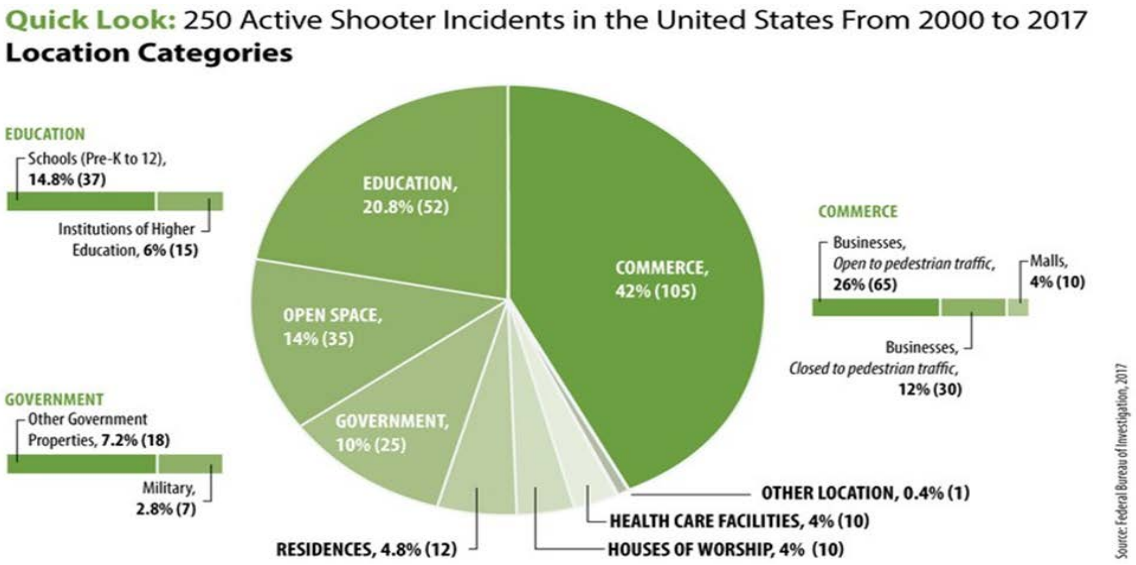


Figure 3. Active Shooter Incidents in the United States From 2000-2017 (Location Categories).
2000 to 2017 Active Shooter Incidents, 2017, retrieved from https://www.fbi.gov/about/partnerships/office-of-partner-engagement/active-shooter-incidents-graphics Copyright 2017 by the Federal Bureau of Investigation.

A closer look at the fifteen active shooter cases on campus in the United States must be taken to determine the presence of indicators in each these cases that could assist detection in the future. I suggest that three other cases should be added to the FBI list of fifteen occurring between the years of 2000 and 2017. They were not included in the active shooter list as their weapon of choice was not a gun. These three cases will be denoted as "active assailants" and briefly reviewed here, as each assailant was intent on causing harm to others on a college campus. The weapons used in these incidents included fire, a vehicle, and a knife. It should be noted that although the suspects in the case did not possess a firearm, their actions suggest an intent to kill.

I would also submit that there is one additional case, bringing the total to nineteen, that occurred at a sorority house just off of campus, which should be included

as well. The shooter was a student, and the incident happened at a sorority house outside of campus property. The sorority house could be considered as an extension of the campus as all of the women at the residence were students. The FBI does not include this case, however, because it is technically an off-campus property.

## Active Shooter / Assailant Cases Review

**Case #1 - Date – January 16, 2002**

Institution – Appalachian School of Law, Grundy, VA

Synopsis – Peter Odighizuma was a former student at the law school and was dismissed from the school the day before the shooting for receiving poor grades. After being rejected by school officials, he asked them to "pray for me." ("Law Students Tackle Gunman", 2002). He then returned to campus the next day with a firearm, killing three and wounding three.

**Case #2 - Date – May 9, 2003**

Institution – Case Western Reserve University, Cleveland, Ohio

Synopsis – Biswanath Halder, a former student of the University four years prior, had a reputation of being awkward with his peers and faculty. He was involved in a lawsuit against the administrator of the computer lab when the incident occurred, accusing him of destroying his files which contained information regarding future business endeavors. This incident escalated for over three years until Halder appeared at the university in tactical gear, killing one student and wounding two professors (Misson, 2013).

**Case #3 – Date – April 16, 2007**

Institution – Virginia Polytechnic Institue and State University

Synopsis – Seun Hui Cho, a student of Virginia Tech, began shooting in a dormitory located on campus and then later in the confines of a classroom. Thirty-three people were killed and another 17 wounded as a direct result of Cho's actions. An examination conducted after the event revealed a severely troubled individual that was suffering from potential psychotic episodes (Osterweil, 2007). Dr. Pollok, a contributor to the United States Secret Service Task Force Report on active shooters, stated that there is no profile of a killer but, "still there are common signs and someone at Virginia State should have been able to read them" (Osterweil, 2007). Cho displayed signs of depression and roommates admitted after the incident that he was acting strangely and in a depressed mood, not talking to people for extended periods. Cho also had a history of overt suicidal ideation and thoughts. His literary writings in class included a piece in which a fictional student killed other classmates in his school. Students in his creative writing class stopped attending sessions and attendance reduced dramatically. When the professor asked a student the reasoning for this drop in attendance she was told, referring to Cho, "it's the boy. . . . everyone's afraid of him" (TriData Division, 2008, p. 42).

**Case #4 – Date – February 8, 2008**

Institution- Louisiana Techincal College, Baton Rouge, Louisiana

Synopsis – Latina Williams, a student at the college, fired multiple rounds from a handgun in a classroom, killing one person and subsequently herself. According to information released by police after the shooting Williams had cut ties with her family,

shown signs that she had lost touch with reality, and presented symptoms of paranoia to those around her. Before the shooting, she had also given away and sold many of her possessions. Police further believe that she had called a suicide hotline anonymously the day of the shooting (Thomas & Houston, 2008).

**Case #5 – Date – February 14, 2008**

Location – Northern Illinois University, Dekalb, Illinois

Synopsis – Steven Kazmierczak, a graduate student at the University, armed with a shotgun and three handguns, killed five people and injured twenty-three. Steven was described as an average student, but days before the attack he began acting erratically after he declined to take his prescribed medications (Gray, 2008). Kazmierczak had been temporarily institutionalized for mental illness and suicide attempts in the past and diagnosed with schizophrenic disorder. His girlfriend later advised that he was prescribed Xanax, Ambien, and Prozac and had stopped taking his medication approximately three weeks before the incident. Kazmierczak also had a history of being bullied and had been fixated on previous school shootings (Vann, 2017). He had discussed with his best friend the tactics behind prior school shootings including the Virginia Tech shooting. These tactics included intricate details of the shooting regarding the use of chains to seal the doors, as well as the use of bombs in the Columbine shooting incident. Before the attack, Kazmierczak had experienced multiple life stressors to including a decline in the health of a family member, troubles at work and school, and problems with his girlfriend.

**Case #6 – Date - April 26, 2009**

Institution– Hampton University, Hampton, Virginia

Synopsis – Odane Greg May, 18 years of age and a prior student of the university, brought three firearms to a campus residential dorm, shooting two people and wounding himself. He then proceeded to shoot himself but survived. There is not much information available on the shooter, but his defense was centered around his alleged undisclosed mental illness ("Plea entered in Hampton University Shooting", 2009).

**Case #7 – Date- February 12, 2010**

Institution – University of Alabama, Huntsville, Alabama

Synopsis – Dr. Amy Bishop Anderson, a 44-year-old Harvard-trained female biology professor at the school, sat in a departmental meeting for over 30 minutes. She then stood up and fired at her colleagues killing three and wounding three (Gates, 2010). Before the meeting, she had been advised that she was not being granted tenure at the university. Bishop had been embattled with the university over her failure to receive tenure, and was consumed with the idea that she would not receive tenure.

**Case #8 – Date – March 9, 2010**

Institution – Ohio State University, Columbus, Ohio

Synopsis – Maintenance worker Nathaniel Alvin Brown, 50 years of age, entered the maintenance building at the university armed with two handguns, killing one coworker and wounding another. He then turned the gun on himself. Mr. Brown had recently received a poor evaluation and was about to be fired from his position.

According to other coworkers, Brown had become very quiet and subdued in the past week leading up to the shooting. He was also in financial trouble and foreclosure on his home was imminent (Gates, 2010).

**Case #9 - Date – March 8, 2012**

Institution – University of Pittsburgh Medical Center, Pittsburgh, PA

Synopsis – John Schick, 30, entered the university armed with two handguns, killing one and wounding seven. Schick was a former patient at the facility and had a history of mental illness. He was ordered by a judge to seek 180 days of mental health evaluation after an altercation with police at the Portland International Airport in which he assaulted an officer. John Schick was a biology student at Duquesne University in Pittsburgh, but had recently been banned from campus following complaints of harassment from female students. Neighbors in his apartment building stated that he behaved erratically and often seemed heavily medicated, and in the days before the shooting posted angry notes outside of his apartment door ("John Schick, Psychiatric 'Shooter' had Mental Health History", 2012). He was found by police to have large quantities of unspecified medication to treat mental illness in his apartment and on his person after the shooting.

**Case #10 – Date – April 2, 2012**

Institution – Oikos University, Oakland, California

Synopsis – Su Nam Ko, 43 years of age, killed seven people at the university with a handgun while wounding three others. Su Nam Ko was a former student at the university and after dropping out, became disgruntled because he was not given a refund

for his courses (Melendez, 2017). He had been labeled by the university as having behavioral problems and was asked to leave the institution. It is believed that his intentions were focused on harming the school administrators responsible for the decision regarding his tuition, but was unable to locate them and carried out his assault on innocent victims at the school. Su Nam Ko had also been diagnosed with paranoid schizophrenia. It was also that Ko was upset with the way he was treated at school, and believed he was actually mistreated by other students (Attewill & Champion 2014).

**Case #11 – Date – April 12, 2013**

Institution– New River Community College, Christiansburg, VA

Synopsis - Neil Allen MacInnis, a 22-year-old student at the college, fired at his classmates with a shotgun. Fortunately, no one was killed in this incident although two people were wounded. In MacInnis's trial, it was discovered that he had attempted to commit suicide three times before this incident, and he suffered from a long history of mental illness. Videos uncovered on his laptop revealed his desire to engage in a school shooting, and graphically described plans on how he would accomplish this task. His doctor had also recently taken him off of the medication that he had been prescribed for his mental illness (Powell, 2014).

**Case #12 – Date - June 7, 2013**

Institution– Santa Monica College, Santa Monica, California

Synopsis – John Zawahri, a 23-year-old former student at the college, used a gun to kill his father and his brother at their residence. After carjacking a vehicle, he advised the driver to travel to the college where he continued his shooting spree. Five people in

total were killed in this incident, and four were injured. Police subsequently shot and killed John Zawahri. He had been hospitalized in the past for professing that he wanted to harm others. His neighbors had also stated that they believed he was mentally unstable before the attack. Days before the shooting, Zawahri had changed his appearance, shaving his head and growing a beard (Nye, 2013). Zawahri also had a history of researching weapons and bomb-making materials, and had made threats to other students, security officers, and teachers in the past. Bomb-making materials were also found in his residence while in high school.

Case #13 – Date - June 5, 2014

Institution – Seattle Pacific University, Seattle, Washington

Synopsis – Aaron Rey Ybarra, 26 years old and not a student at the university, fired a shotgun at a residence hall, killing one and wounding three. Ybarra had two previous run-ins with the law after which he was involuntarily committed to mental institutions. On one occaision, he called 911 threatening that he had a rage inside of him and that he wanted to hurt others ("Seattle Pacific University Shooting", 2015). Prosecutors in this case also divulged that Ybarra had expressed admiration in the past to others of the Columbine shooters as well the Virginia Tech shooter.

Case #14 – Date – November 20, 2014

Institution – Florida State University, Tallahassee, Florida

Synopsis – Myron May, a 31-year-old lawyer and alumnus of the university, began firing a handgun in the library. Three people were wounded in this incident. May

believed the government was watching and controlling him through electronic waves, and had documented this in his journals and made multiple videos about it (Williams, 2017).

**Case #15 – Date – October 1, 2015**

Institution – Umpqua Community College, Roseburg, Oregon

Synopsis- Christopher Sean Harper-Mercer, 26 years old and a student at the college, brought a rifle and multiple handguns to his class. He killed nine students and wounded seven. Harper-Mercer had expressed interest in black magic and sacrifices to friends. He also told one of his friends that he should go out and kill Christians, and had shared ISIS beheading videos with the same friend. His mother later advised detectives that he enjoyed watching videos of killings, and would critique these videos to her. The night before the shooting he informed his mother that he was excited for school the following day, which, as she describes, was not typical behavior (Suo, 2017).

The following are cases involving university attacks devoid of a firearm and are considered active assailants.

**Case #1 – Date – January 17, 2018**

Institution – St. Catherine University, St. Paul, Minnesota

Synopsis - Tnuza Hassan, a student at the university, ignited multiple fires within the confines of the university in an attempt to harm numerous people on campus. She intended to deliver retribution to the United States as she had read online that the United States military had set fires to schools in Iraq and Afghanistan. Hassan attempted to recruit her dormitory roommates to assist her in her violent extremism and attacks by

writing letters to her roommates detailing her extremist ideology ("College Campuses Vulnerable", 2018).

**Case #2 – Date - November 28, 2016**

Institution - Ohio State University, Columbus Ohio

Synopsis - Abdul Razak Ali Artan, a student at the university, conducted a ramming-style attack with his vehicle on campus, and then continued the assault with a knife when his car was rendered inoperable. Artan had been interviewed by the school newspaper before the attack, and reported frustration in regards to the way the media portrayed Muslims. His family members also indicated that he was having trouble in school and often complained about his grades ("College Campuses Vulnerable", 2018).

**Case # 3 – Date - November 4, 2015**

Institution – University of California, Merced, California

Synopsis - Faisal Mohammed, a student at the University of California, was shot and killed by officers after he stabbed four students on campus. The FBI later uncovered that he had a written attack plan, viewed extremist videos online, and carried an ISIS flag ("College Campuses Vulnerable", 2018). His classmates also described him as a loner who ignored people when spoken to (Robinson, 2015).

The following is an off-campus shooting involving higher education students.

<u>Case # 1 – Date – May 27, 2014</u>

Institution– University of California at Santa Barbara, Santa Barbara, California

Synopsis – Elliot Rodgers, a student at the university who had enrolled and dropped his courses three times, killed seven people using a gun and knife. Rodgers posted a video on Youtube before the killings, indicating that he was going to kill sorority girls for rejecting him. His video, graphic in nature, describes his mentality before the shooting: "I take great pleasure in slaughtering all of you. You will finally see that I am, in truth, the superior one, the true alpha male" (Jaschik, 2014, para. 7). He drove to a sorority house off campus, shooting the girls on the lawn outside of the home.

Although the focus of this research is directed at American universities, a recent active shooter case occurred at the Kerch Polytechnic College in Crimea, Russia on October 17, 2018, which has sparked interest in the behavioral identification realm. The lone assailant, identified as student Vladislav I. Roslyakov, a senior at the university, killed 19 students on campus using a firearm as well as improvised explosive devices. Although it will be some time before motives for this attack are uncovered, Russian officials are reporting that a close friend and fellow student of the shooter described him as a loner obsessed with United States school shootings, particularly the Columbine High School shooting incident (New York City Police Department, 2018).

## Assailants Connection to the Institution

When looking at the suspects in these violent incidents, it is essential to note that all but four assailants were either students or former students of the higher education institutions where the attacks took place. When focusing on the subgroup of student shooters, five of the killers were former students, with ten being current students of the institution. It should also be noted that the Russian attack also included a current student. This highlights the benefits of administering a behavioral recognition curriculum to

students, as they are best positioned to observe behaviors in their peers. Students at institutions of higher education would, therefore, harness the tools and knowledge from a curriculum to recognize behaviors and indicators indicative of a potential attack.

## Governmental Recognition of Behavioral Indicators

When confronted with the harsh reality of these incidents, it is apparent that overt signs were evident in many cases before the shootings. This vital fact has been observed by government institutions such as the Department of Homeland Security, the United States Secret Service, and the Federal Bureau of Investigation. These agencies have studied active shooter incidents in various venues to establish behavioral indicators that can assist in halting attacks before their onset. The agencies are in agreement that it is essential to view this discipline of study not from a perspective of the creation of a profile of the shooter regarding demographics, race, creed, or gender, but rather to establish behavioral indicators that are identifiable leading up to the attack.

## United States Secret Service and United States Department of Education First Study – Concerning Behaviors Recognition

In June of 1999, the United States Secret Service (USSS) partnered with the United States Department of Education (ED) in the wake of the Columbine High School shooting to research active shooter attacks. From this partnership, entitled the "Safe School Initiative", an overall prevention theme through proactive measures was established in regards to active shooter scenarios. This study was the first of its kind and is considered a landmark study in the field of prevention of violence (Drysdale, Modzeleski, & Simons, 2010). This research focused on mitigating future attacks by

drawing on historical case studies of prior attackers. The pathway to create this linkage would be the recognition of identifiable behaviors present in individuals before the attack. The ability to install an intervention prior to the start of the initial actions of the attacker was the ultimate goal of the USSS and the United States Department of Education.

The first of three studies that the agencies would conduct together was intent on answering the central questions of, the "Could we have known that these attacks were being planned?" and, if so, " What could we have done to prevent these attacks from occurring?" (Vossekuil, Fein, Redy, Borum, & Modzeleski, 2004, p.3). This unprecedented coordination between the two federal agencies created an alliance tasked with a purpose of "identify[ing] information that could be obtainable or knowable prior to an attack" (Vossekuil et al., 2004, p. 3). This study was released in 2002 and examined 37 incidents of school violence regarding 41 attackers (n=41) between the years of 1974 and 2000 in grades K-12.

It is important to note that a primary finding presented in the study is that there is currently no profile of an active shooter. One cannot merely look at an individual and assess their capability of conducting an assault of this magnitude, but there are behavioral characteristics presented by potential shooters that can be observable before an attack. The findings of these studies are significant in regards to behavioral signs of active shooters, and align with the goals of this researcher's curriculum design implementation.

In 93% (n=38) of the cases examined, there were overt signs of behavioral indicators that the suspect was going to conduct an attack that caused others concern before the attack. The population that was subjected to these signs were classmates,

teachers, parents, school officials, and law enforcement. Overt signs were indicators of behavioral manifestations that the attacker had intentions to carry out a plan to harm in some way. An anecdotal example of this manifestation that was noted in the study was that of a case in which an attacker had asked a friend to assist him in sawing off a shotgun to get it to fit in his jacket for concealment (Vossekuil et al., 2004).

Not only did others observe behaviors of the shooter before the incident, in 44% (n=18) of the studied cases the shooters were either encouraged, dared, or influenced to conduct this assault. In 71% (n=29) of the cases, the violator had also felt threatened, attacked, or persecuted in some way by others in their environment. Interest in violence was also a common theme, with outlets such as movies, video games, books, or other media being used by 59% (n=24) of the attackers. In 37% (n=15) of the cases, attackers had also expressed violence in personal writings such as journals or essays. Personal loss was also a major theme, as 98% (n=40) of the suspects had experienced an actual or perceived loss before the attack. The most significant losses were categorized as a loss of social status, which accounted for 66% (n=27) of the assailants, or the loss of a loved one or relationship, which accounted for 51% (n=17). Outward behaviors in 83% (n=34) of the attackers were indicative of having difficulty coping with this loss in some manner. These behaviors were manifested often in the form of depression and withdrawal.

Depression plays a major theme of the attackers studied, as 78% (n=32) had shown a history of depression coupled with talk of, or history of suicide attempts. Also uncovered was that in three-quarters of the incidents examined, at least one person was aware of the actual potential attack before its onset, and in two-thirds of the cases studied, more than one person was aware of the attack before it occurred.

Through this research above key findings were highlighted.

- Incidents of this nature are not sudden acts in which a person snaps.
- Difficulty coping with loss or failure and a history of depression or suicide attempts was prevalent in attackers.
- Bullying and persecution by others were prevalent in the majority of attackers.
- The majority of the attackers engaged in concerning behavior before the attack.
- In many cases, others were aware of a shooting threat before its onset. Also, in many cases, other students were even involved.

## United States Secret Service and United States Department of Education

## Second Study – Bystander Population

In the second study released in 2008, the United States Secret Service and the United States Department of Education once again joined forces to continue the Safe School Initiative, and to further research progress into the recognition of behavioral attributes in regards to active shooter cases (Pollack, Modzeleski, & Rooney, 2008). This study continued to delve into primary and secondary school shootings between the years of 1974 and 2000. Research was based on the same previously identified 37 school shooting incidents, as well as supplemental cases in which an identifiable threat was present and observed, and a crisis was subsequently averted in some manner. This study concentrated on the above pool of cases, but focused on 15 (n=15) participants in total, identified from the cases as having been advised by the shooter of the incident prior to its

onset and agreeing to participate in the study. A survey format was utilized in this research.

Of the 15 participants, six had prior knowledge of a potential school shooting threat and attended a school in which an incident was averted, while nine of the participants had previous knowledge of a threat, but an incident still occurred. These participants were collectively referred to as bystanders in this study, and provided researchers with survey data. Information from 198 other bystanders, identified from the prior 2002 study as having had knowledge of an incident prior to its initiation, was also investigated from data available to the researchers. Ultimately, this study examined 119 (n=119) of these relationships between attacker and bystander that contained significant information to assess and draw conclusions. The focus of this research highlighted the final two bullet points from the previous research described above: 1) the majority of attackers engaged in concerning behavior before the attack, and 2) in many cases, others were aware of the offense prior to its commencement.

Several key findings surfaced from this study. In 82% (n=98) of the cases studied, bystanders were the recipient of information regarding an attack directly from the suspect, while 13% (n=15) received this information secondhand. Of this population, 34% (n=41) were friends of the suspect, 29% (n=35) were schoolmates or co-workers, and 6% (n=8) were identified as family members. The remaining percentage was classified as unknown.

At least one other person had some type of knowledge of the attacker's plan in 81% of the incidents, and more than one person had knowledge of 59% of the

> incidents. Of those individuals who had prior knowledge, 93% were peers of the perpetrators – friends, schoolmates, or siblings. (Pollack et al., 2008, p. 4).

Many of the bystanders, although recipients of this information, did not honestly believe that a deadly encounter would ultimately ensue. Reasons for this, ascertained from the surveys of the 15 participants, revealed the tone of the message was not perceived as dangerous, the message was repetitive and so blatantly overt that was not viewed as credible, and the communication was believed to be attention-seeking in nature (Pollack et al., 2008).

Information derived from the survey sample (n=15) revealed further intimate findings regarding why the information was not relayed to an authority. Bystanders had believed the attacker was engaging in attention-seeking behavior, they thought the threat was too extreme and thus unbelievable, and the tone of the threat led the bystander to question its credibility. For example, the violator was eating pizza while discussing the event in one incident, and therefore not deemed to be serious about the threat. Bystanders also believed that the attack was not imminent, and that they could take further time to decide on a course of action.

Recommendations from this study by the School Safety Initiative team members include the initiation of a school safety threat team to whom bystanders, upon receiving a threatening message, can divulge this critical information. This team, consisting of trained mental health professionals, administrators, law enforcement, and others, could then assess the validity of the identified threat. Even more significant was the fact that the study recommended to the educational community that the presence of a combination

of overt verbal threats combined with behavioral indicators identified in the 2002 study, present a credible and robust sign of future negative implications.

Williams, Horgan, and Evans (2015) take this study a step further, and suggest through their research that the most critical bystander in recognition of these behaviors is defined as an "at-risk" person's friends. These friends play a vital role in the identification of a violent event before it occurs. They found, "evidence that those best positioned to notice early signs of individuals considering acts of violent extremism might be those individual's friends: perhaps more so than school counselors, clergy, or family members" (Williams, Horgan & Evans, 2015, pg. 1).

They also point to a critical component that reluctance to report a person displaying these behaviors was largely based on fear. This fear could be entrenched in several factors, to include perceived damage to a current relationship or brandishing a stigma upon this person. Williams et al., (2015) further suggest that it is therefore critical to provide this "friend" community the curriculum and protocols that could be effective in the subsequent mitigation of an event before it begins. This friend community within an institution of higher education could be identified as the classmates that surround a potential assaulter in this environment. This evidence, in conjunction with the School Safety Initiative studies, supports the chosen audience of college students as preferable recipients of a curriculum teaching identification of behavioral risk indicators of an active shooter.

## United States Secret Service, United States Department of Education, and Federal Bureau of Investigation – Final Study – Modes of Indication

Released in April of 2010, in the third and final study conducted by the United States Secret Service and the United States Department of Education, the Federal Bureau of Investigation joined forces for a governmental collaborative effort. This study was initiated by President George W. Bush and was conducted as a direct result of the Virginia Tech shooting. The federal government sought to "identify ways of preventing future attacks that would affect our nation's colleges and universities" (Drysdale, Modzeleski, & Simons, 2010, p. 3).

The study drew from 272 (n=272) targeted violent incidents at colleges and universities from 1900 to 2008 in the United States, and included a section dedicated to pre-incident behaviors. This behavioral section was then subdivided into two sections which focused on determining: 1) whether signs were present before the attacks and how were they transmitted and 2) whether someone else was aware of these signs.

In 29% (n=79) of the cases, the research uncovered that the suspects exhibited one or more overt warning actions prior to the attack. It should be noted that this number is likely lower than expected, as many records are unavailable for older cases investigated. These actions were subdivided into three categories: 1) verbal or written threats, 2) stalking or harassing and, 3) physically aggressive behavior. Figure 4 depicts the number of assailants residing in each behavioral category, as well as the overlap of multiple indicators from a single assailant falling into numerous categories.

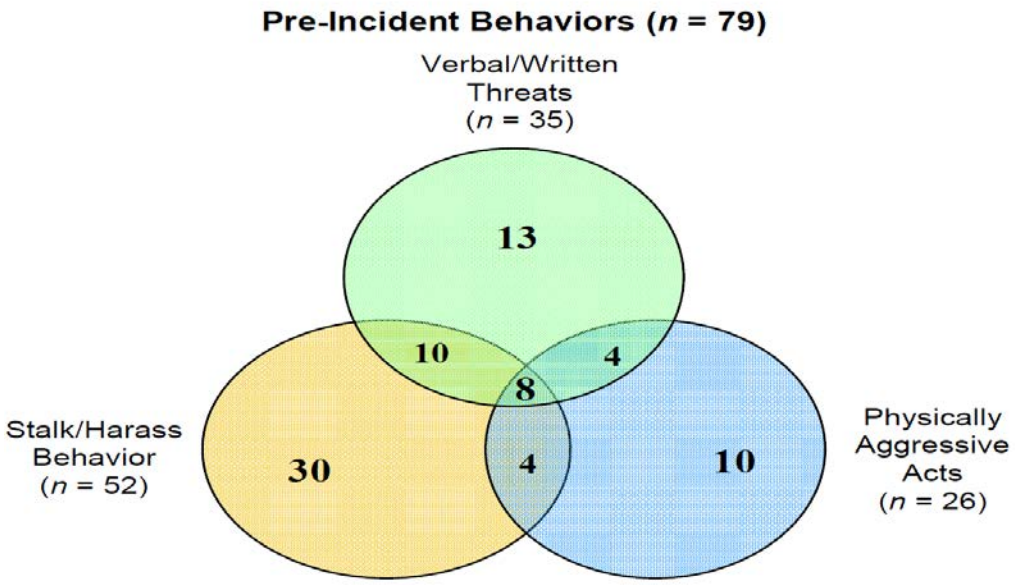


Figure 4. Category of Pre-Incident Behaviors Reported Prior to Violent Incidents in Institutions of Higher Education in the United States Between 1900 and 2008. Campus Attacks Targeting Violence Affecting Institutions of Higher Education, by Drysdale & Simons, 2010, retrieved from https://www.secretservice.gov/data/protection/ntac/CampusAttacks041610.pdf 2010 by Copyright United States Secret Service.

The observation of concerning behaviors was reported by members of the community including friends, law enforcement, family, professors, and other associates, and was observed in 31% of the incidents (n=85).

> These behaviors included, but were not limited to: paranoid ideas, delusional statements, changes in personality or performance, disciplinary problems on campus, depressed mood, suicidal ideation, non-specific threats of violence, increased isolation, "odd" or "bizarre" behavior, and interest in or acquisition of weapons (Drysdale et al., 2010, p23).

The discoveries by these three governmental agencies were consistent with previous studies, concluding many of the same findings. This research strengthened and solidified research in this emergent venue of analysis.

## United States Secret Service and The United States Department of Homeland Security Study – Recognizable Indicators for Practical Use

With the hindsight of 20 years from the initial study, and more than 50 additional shootings at educational institutions, the most recent research was released in July of 2018 with the United States Secret Service and the U.S Department of Homeland Security working together. This study focused on grades K-12, but contains valuable information that is useful to institutions of higher education. It should be noted that research from the initial two School Safety Initiative studies was used for the basis of this research also.

> We can learn much more about risk for violence by working through the threat assessment process, which is designed to gather the most relevant information about the student's communications and behaviors, the negative or stressful events the students have experienced, and the resources the student possesses to overcome those setbacks and challenges. (Alathari, Ashley, Camilletti, Driscoll, Drysdale, McGarry, Snook, 2018, p.1).

In this study, it was again emphasized that there is no current profile for an active shooter, although concerning behaviors or indicators can be of significant value. At the forefront of the researchers' work was the need to improve visibility of these identified behaviors among administrators and staff within school districts, in order to move from an identification mode of established signs to an operational phase in which they can be implemented in the field.

A recommendation was put forth for educational facilities to identify behaviors that would faciliate interventions, to establish threat assessment teams through which identified behavioral warning signs or indicators can be reported, and to provide training on implementing the entire process (Alathari et al. 2018). Included among the recommendations are observable behavioral indicators revealed from prior attacks in educational settings, as this study concentrated on recognizable factors present in the education environment.

Comparing this study with the initial research conducted 20 years earlier, most of the same findings emerged, and generally appear to be in agreement. Both studies established significant behavioral profiles regarding observable characteristics that warrant heightened awareness. Included in these indicators in the 2018 study are characteristics such as bullying or harassing others, being harassed or bullied, engaging in threatening or violent conduct in school, and concerning behaviors such as an evident decline in performance at school. Also of concern were sudden changes in appearance or behavior, as well as violent communications made to others or communicated in class writings. Inappropriate interests, or interests encompassing violent scenarios such as school attacks or interest in prior attacks, were also noted. Pathways for these interests, often visited by a perpetrator, included reading materials, movies, and online searches.

Major stressors across all aspects of a student's life such as relationships, studies, or stressors external to the school setting, such as family, are of interest and can exacerbate other life stressors. The presence or absence of strategies for coping with stressors can also be a factor in the identification process. Apparent signs of hopelessness, desperations, despair, anxiety, depression, and suicidal thoughts are overt

signs often expressed before a violent event. Finally, historical evaluation of active shooter events has again shown that many attackers have made overt statements regarding their plans to commit an attack, or even solicited assistance with their offense.

## Federal Bureau of Investigation – Behavioral Analysis Unit

### Stressors and Concerning Behaviors

In June of 2018, the FBI's Behavioral Analysis Unit released further research regarding pre-attack behaviors of active shooters in the United States between 2000 and 2013. This was a direct response to the alarming increase in these events in recent years. The aim of this study was to determine what happened before the attacks, and whether information could be collected through close examinations of the shooters that could prevent future occurrences.

> In the weeks and months before an attack, many active shooters engage in behaviors that may signal impending violence. While some of these behaviors are intentionally concealed, others are observable and if recognized and reported, may lead to a disruption prior to an attack. By articulating the concrete, observable pre-attack behaviors of many active shooters, the FBI hopes to make these warning signs more visible and easily identifiable. (Silver et al., p.6)

This study examined 63 active shooters in the US from 2000-2013, focusing on the identification of behavioral indicators present in shooters before the initiation of an assault.

Stressors in the assailant's life were a significant theme, and it was identified that the majority of active shooters had been experiencing at least three or more (3.6) total

stressors in their life less than one year leading up to the attack. These stressors included primarily financial strain, employment, conflict with friends and peers, marital problems, drug and alcohol abuse, conflict in school, and injury. The most common stressor that was discovered was mental health, which 62% (n=39) of the active shooter population struggled with. Mental health is defined in the context of this study as a type of depression, anxiety, and paranoia and does not necessarily lead to a mental health diagnosis of mental illness, although 25% (n=16) of these attacks were conducted by an individual with a diagnosed mental health issue. Table 1 from this study depicts the frequency of stressors in the cases that were studied.

Table 1.
Stressors Displayed in Active Shooters from 2000-2013 Displaying the Frequency in Which Each Stressor Occurred (n=63)

TABLE 1: STRESSORS

| Stressors | Number | % |
|---|---|---|
| Mental health | 39 | 62 |
| Financial strain | 31 | 49 |
| Job related | 22 | 35 |
| Conflicts with friends/peers | 18 | 29 |
| Marital problems | 17 | 27 |
| Abuse of illicit drugs/alcohol | 14 | 22 |
| Other (e.g. caregiving responsibilities) | 14 | 22 |
| Conflict at school | 14 | 22 |
| Physical injury | 13 | 21 |
| Conflict with parents | 11 | 18 |
| Conflict with other family members | 10 | 16 |
| Sexual stress/frustration | 8 | 13 |
| Criminal problems | 7 | 11 |
| Civil problems | 6 | 10 |
| Death of friend/relative | 4 | 6 |
| None | 1 | 2 |

*Note.* Reprinted from *A Study of Pre-Attack Behaviors of Active Shooters in the United States Between 2000-2013*, by Silver, Simons, & Craun, retrieved from Federal Bureau of Investigation, U.S Department of Justice. Washington, D.C. 20535 Copyright 2018 by the Federal Bureau of Investigation.

Another factor that was considered was concerning behaviors. Silver et al (2018) observes, “Although these may be related to stressors in the active shooter’s life, the focus here was not on the internal, subjective experience of the active shooter, but rather on what was objectively knowable to others” (p.17). Concerning behaviors provide a means to identify an active shooter before an attack through observable actions presented by the shooter. Most significant is the fact that in each case examined, at least one person observed a concerning behavior in the shooter before the event. It is equally important to note that in 92% of school-related shootings, this person was a classmate (Silver et al. 2018).

Active shooters in this study displayed over four (4.7) concerning behaviors. These included mental health behaviors, as defined above, interpersonal interactions, leakage (the communication of a third party of the intent to harm someone), quality of thinking or communication, work performance, school performance, threats and confrontations, anger, and physical aggression. Concerning behaviors, some of which have also been referred to in current research as an overt warning behavior, will be discussed later in this section. Table 2 is taken from the FBI 2018 study, and illustrates the frequency of concerning behaviors observed in the cases studied.

Table 2.
Concerning Behaviors Displayed in Active Shooters From 2000-2013 Displaying the Frequency in Which Each Behavior Occurred (n=63)

| Concerning Behavior | Number | % |
|---|---|---|
| Mental health | 39 | 62 |
| Interpersonal interactions | 36 | 57 |
| Leakage | 35 | 56 |
| Quality of thinking or communication | 34 | 54 |
| Work performance* | 11 | 46 |
| School performance** | 5 | 42 |
| Threats/confrontations | 22 | 35 |
| Anger | 21 | 33 |
| Physical aggression | 21 | 33 |
| Risk-taking | 13 | 21 |
| Firearm behavior | 13 | 21 |
| Violent media usage | 12 | 19 |
| Weight/eating | 8 | 13 |
| Drug abuse | 8 | 13 |
| Impulsivity | 7 | 11 |
| Alcohol abuse | 6 | 10 |
| Physical health | 6 | 10 |
| Other (e.g. idolizing criminals) | 5 | 8 |
| Sexual behavior | 4 | 6 |
| Quality of sleep | 3 | 5 |
| Hygiene/appearance | 2 | 3 |

*Note. Note.* Reprinted from *A Study of Pre-Attack Behaviors of Active Shooters in the United States Between 2000-2013,* by Silver, Simons, & Craun, retrieved from Federal Bureau of Investigation, U.S Department of Justice. Washington, D.C. 20535 Copyright 2018 by the Federal Bureau of Investigation.

The FBI further uncovered other relevant information from the study of 63 shooters. When looking at the issue of suicide, 48% (n=30) of active shooters had suicidal thoughts or had engaged in a suicidal act prior. Also, it was revealed that 62% (n=39) of attackers had a history of acting in an abusive or harassing manner either in the workplace or their personal life.

## Pathway, Probing and Testing, and Cocooning

The FBI's investigations also uncovered that an active shooter's pathway to violence is often in reaction to an unresolved grievance, either real or perceived. The FBI notes that shooters do not just "snap" (Blue, 2018). These aggressors follow a pathway to violence consisting of several distinct steps. This pathway encompasses the following steps: a perceived grievance, ideation of the event, research and planning for the event, and, finally, the attack. This is a generally long process, and although no clearly delineated time has been established for the process, it has been observed to occur over the course of a couple of years. Potential for identification along the escalation path before the attack is critical, as it indicates that a person is experiencing a pathway to violence and exhibiting behaviors along this route (Calhoun & Weston, 2016).

The FBI also recognized two other behaviors that were present prior to many attacks. "Probing and or Testing" occurs when a suspect tests the security measures of an institution or location to extract information regarding accessibility. One example of this is where an individual tries to enter a school location without being detected, for instance, through an unlocked door or by sneaking past security.

"Cocooning" is when an individual gathers materials necessary for the act in locations accessible to them but undetectable by others prior to the attack. FBI behavioral analysts have also advised that suspects will also often take this a step further, and remain in the location for extended periods focusing their thoughts on the attack in an almost meditative state (Blue, personal communication, November 8, 2018).

## New Jersey Department of Health

The New Jersey Department of Health (2018), using all of the past research for the benefit of the State of New Jersey, has identified specific indicators or risk factors associated with violent behavior. It is important to note that these are basic indicators, and the identification of one of these indicators is not necessarily indicative of violent tendencies, but the observance of several signs concurrently may offer a window into future events. These indicators have been divided into three categories. These subcategories are: 1) Personal Precipitant, those indicators that are concentrated around that individual; 2) Traditional Risk Indicators, those indicators that have been historically known to cause disruptions in personal stability; and 3) Late Stage Indicators. Late stage indicators are associated with violent tendencies closer to the commencement of a violent offense. Examples of indicators present in each of these categories are listed below.

**Personal Precipitants**

- Relationship problems/ divorce
- Financial and or legal problems
- Perceived or pending job suspension or termination
- Discontinuation of medication or medication not working

**Traditional Risk Indicators**

- Appearance and hygiene
- Suicidal thoughts statements or acts
- Suspicious or paranoid behavior
- Previous incidents of violence
- Empathy with individuals committing violence

- Unsolicited comments about firearms, other weapons or violent crime

**Late Stage Indicators**

- Sudden change or intensification of behavior
- Rage, anger, or seeking revenge
- Withdrawing from family and friends
- Dramatic changes in mood
- No reason for living or sense of purpose in life

## Sandy Hook Promise

The Sandy Hook Promise (SHP) is a national non-profit organization formed by family members of loved ones killed in the tragedy of Sandy Hook, Connecticut. The organization summarizes its mandates as follows: "Based in Newton, Connecticut, SHP's sole purpose is to prevent gun violence before it happens so that no other parents experience the senseless, horrific loss of their child" (Sandy Hook Promise, 2018). This organization, through federal grants and donations, offers free classes for elementary, middle, and high schools regarding the recognition of warning signs and signals that they have compiled through their extensive research on the topic since the tragedy. Their program, entitled "Say Something, is designed to teach youth to advise an adult if they recognize any warning signs that are presented. This program also sheds light on social media awareness and the recognition of indicators associated with gun violence in schools on this platform.

It is important to note that within these teachings, the organization warns that the presence of one warning sign does not constitute a potential act of violence, but when many are present or are cumulative, a potential for violence exists. Below is a list of the warning signs taught in the Sandy Hook Promise curriculum. Many of these have been derived from the studies conducted by the governmental entities and adapted for educational environments.

**Warning Signs as per Sandy Hook Promise**

- Obsession with firearms
- Inability to regulate emotions or anger management issues
- Sudden change in academic performance
- Self-harm or violence towards others
- Extreme feelings of isolation or social withdrawal
- Overt threats of violence (written, videos, spoken, gestures, pictures)
- Major change in eating or sleeping habits
- Homicidal ideation
- Significant personality change
- Dramatic changes in personal appearance
- Drug or alcohol use or abuse
- Recruitment of a friend to join an attack
- Warning a friend to stay away from school

On October 18, 2018, the State of New Jersey's Department of Education, responsible for the oversight of primary and secondary schools in the State of New

Jersey, partnered with the Sandy Hook Promise after receiving a one million dollar grant from the US Department of Justice to support school violence protection (Lowe, 2018). The State of New Jersey will be using this grant to educate ten school districts within the state on the warning signs of potential violence in schools sometime in the future.

## Mental Illness and Active Shooters

Mental illness is a common theme that permeates many of the aforementioned warning behaviors. When looking at mental illness as a predictive factor regarding violent behavior, Monahan, Torrey, Stanley, and Steadman (2008) found that "violence risk attributed to people with mental disorders vastly exceeds the actual risk presented"(Monahan et al., 2008, para 8). Although debated, it appears that mental illness alone is not an indicator of violent behavior. There are however, varying levels of mental illness that must be reviewed in the context of violent tendencies.

When looking solely at the mental illness of depression as a warning indication of violence, Scherz and Scherz (2014) revealed an identifiable commonality that surfaced in their research on active shooters. The majority of school shootings have occurred at the hands of suspects that were depressed in some manner. They look to multiple cases in which manifestations of depression were revealed from statements made by family and friends, morose writings, videos, or social media postings. The use of medications to combat the depression was also included.

Douglas, Guy, and Hart (2009) conducted a quantitative meta-analysis review of research concerning psychosis as an indicator of violent behavior. Psychosis, a subset of mental illness, was found by this study to be one of the most viable predictors of violent

behavior. Psychosis is defined as a syndrome that "comprises symptoms reflecting profound disturbances in thought, perception, and behavior" (Douglas et al., 2009, p. 681).

This analysis revealed that psychosis was linked to a 49% to 68% increase in the odds that a person displaying symptoms of this nature will partake in some form of violence, due to three distinct reasons. First, psychosis enables specific goal orientation functions, allowing the individual to direct their decision making and behaviors toward an accomplishment of their choosing, even if it is illogical. Second, psychosis enables an individual to display destabilized behavior. This destabilization causes a person to be unable to manage interpersonal conflicts effectively, which is compounded by disturbances in a person's thought process. Third, through impairment of characteristics such as empathy, remorse, or anxiety, inhibition towards violence decreases significantly when psychosis is present.

Swanson, Borm, Swartz, and Monohan (1996) found that persons displaying threat/control override (TCO) delusions, an extreme form of psychosis, were 2.2 times more likely to engage in violent behavior than a sample that did not display these symptoms. TCO can be defined as a delusional mental illness in which a person feels that others can control them through direct inserts into their mind. They also display symptoms in which they believe that others are following them and that others are plotting against them.

This was the case on September 16, 2013, when a gunman, later identified as Aaron Alexis, entered the Washington Navy Yard in Washinton D.C armed with a shotgun. Aaron Alexis killed 12 people and injured three others on his rampage

throughout the building. It was revealed after the incident that Aaron Alexis was suffering from mental illness, including paranoia and sleep disorder. Looking further at the information provided by the FBI and local law enforcement after the incident, it is apparent that Alexis was also suffering from TCO as well.

A month before the event, Alexis had called the Rhode Island from a hotel he had been staying at. He advised the police that he had an altercation with an individual on an airplane, and was now being followed by three people. He also informed the police that people were " talking to him through the walls and ceilings of his hotel room and sending microwave vibrations into his body to deprive him of sleep" ("VA Sheds Light on Mental Health", 2013, para. 6).

Valerie Parlave, FBI assistant director in charge of the Washington Field Office, stated in a press conference, "We have found relevant communications on his electronic media which referenced the delusional belief that he was being controlled or influenced by extremely low-frequency electromagnetic waves for the past three months" (Nimmo, 2013, para. 5). Alexis was under the impression that he was being controlled by electromagnetic wave frequency, also known as ELFs, and he inscribed "My ELF Weapon" and "End the Torment" on the shotgun he used in this attack. This case is a textbook example of an individual suffering from a form of psychosis, and elements of his behavior were observable by those around him at points on his pathway to violence.

## Psychosocial Characteristics

Scherz and Scherz (2014) delve into the psychosocial characteristics of school shooters. Psychosocial characteristics refer to the interrelation of one's environment and

social standing, and a person's thoughts and behavior. Their research into prior school shootings reveals that a commonality amongst perpetrators is their negative perception of their social status in the inner dynamics of the school environment.

Eric Harris, one of the perpetrators of the infamous Columbine shooting, was born with two birth defects, one to his leg and another to his chest, which made him feel inadequate among his peers at school (Rosenwald, 2016). Interviews with students after the shooting admitted that Harris was often made fun of, bullied, and called names at school. In Harris's journal, it was clear that he identified with Hitler due to Hitler's recognition as an influential figure in spite of his small stature. He further indicated in his writings that he wanted to create an incident more significant than the Oklahoma City Bombing, as he believed that this act would cause him to be remembered as masculine. Vengeance for his perceived atrocities was a motivator to commit a violent act against those he believed had perpetrated crimes against him.

> School shootings can be interpreted as the perpetrator's way of dealing with a personal psychosocial crisis. This personal psychosocial crisis is associated with certain observable warning behaviors, such as verbal or written threats, leakage of violent intentions, preoccupation with violence and weapons, or suicidal intentions. (Leuscher et al., 2017, p. 69)

Harris's psychosocial crisis was his status within his educational environment. He displayed his perceived grievances with this community through multiple videotapes in which he graphically outlined the scope and implementation of his attack.

Scherz and Scherz (2014) expand on their research introducing another commonality in active shooter cases that they have uncovered, bullying and marginalization. Marginalization, defined as pushing a person away from a group or community, is often accomplished through bullying tactics in a school setting. Other tactics for marginalization include exclusion from a social environment, ignoring, or even harassment. Those who have been bullied and marginalized by their social community perceive themselves as outcasts from this community. The commonalities identified in this research are behaviors that can be observed by classmates if displayed on a college campus. However, without prior knowledge of this information, taught via a curriculum delivered to all college students in the State of New Jersey, these commonalities can, unfortunately, go unrecognized.

### Overt Warning Behaviors and Presence in Higher Education Cases

Further along the continuum of active shooter identification tactics are overt warning behaviors. These behaviors manifest as actions and communications that have been identified as potentially instrumental in early mitigation of violent events. It is important to note that overt warning behaviors are patterns of behavior and not merely warning indicators or risk factors, as previously discussed. Overt warning behaviors have been established through research of prior incidents, conducted by law enforcement and the mental health community, of active shooter events as well as significant violent confrontations. As Meloy, Hoffman, Guldimann, and James (2011) explained,"The warning behavior model is not a classification of risk factors, but a useful means of conceptualizing behavioral patterns indicating increased threat" ( p. 260).

Meloy et all (2011) have identified eight significant warning behaviors through their analysis of prior research in the mental health field, as well as their research of case studies associated with violence. Each behavior will be examined and linked to a previously described campus active shooter attack as identified using actions denoted before the attack. It should be noted that these overt warning behaviors have been accepted and adopted by the New Jersey Department of Health Disaster and Terrorism Branch, and are currently being taught to the law enforcement community in the State of New Jersey.

## Pathway

Pathway is the first overt warning behavior, and involves an observable form of research or planning of the intended violence before the commencement of the event. This research and subsequent planning for an active shooting event is another area in which recognition of this activity can be detected. While all active shooters must engage in a planning process to some extent, many have incorporated extensive planning throughout this cycle of violence. This includes sketching diagrams of the attack area, preparing a blog or manifesto detailing the attack, or even trying on body armor. This planning can also take the shape of preparation activities such as the acquisition of necessary equipment, tools, or firearms related to the attack.

This was evident in the Virginia Tech shooting in multiple respects. Cho Seung-Hui had prepared his offense as well as the subsequent implementation of this attack. He left behind a manifesto, excerpted below, which he mailed to various news outlets.

> You had a hundred billion chances and ways to have avoided today, but you decided to spill my blood. You forced me into a corner and gave me only one

> option. The decision was yours. Now you have blood on your hands that will never wash off. (“Killers Manifesto, 2007, para 3)

These words are the product of someone that has planned an attack for an extended period. Cho was also found to have a backpack loaded with ammunition and two guns on him. He had also acquired chains and locks for the doors of the university to use in his attack. In a study of all active shooters within the United States from 2000-2010, 35%, or 29 of 84 cases, displayed this behavioral indicator of extensive planning (Blair, 2013).

## Novel Aggression

Novel aggression warning behavior is defined as a warning behavior that presents an act of aggression or violence unrelated to the targeted violence object. This warning behavior can be described as a “test” or a “dry run”, as it is used to ensure the individual possesses the ability to commit their violent act.

This was apparent on May 27, 2014, in the off-campus shooting at the University of California at Santa Barbara. Elliot Rodger killed three of his roommates with a knife before conducting his attack on the sorority house. It is evident in his manifesto, posted on Youtube prior to the attack, that his intentions and object of fixation were the women who had rejected him in the past.

> On the day of retribution, I am going to enter the hottest sorority house at UCSB, and I will slaughter every single spoiled, stuck-up, blond slut I see inside there. All those girls I've desired so much. They have all rejected me and looked down on me as an inferior man if I ever made a sexual advance toward them, while they throw themselves at these obnoxious brutes, I take great pleasure in slaughtering

> all of you. You will finally see that I am, in truth, the superior one, the true alpha male. (Jaschik, 2014, para. 5)

Elliot Rodger's true object of obsession, evident from his rants, was the women who had rejected him. Before committing his targeted crime, he ensured that he could commit this crime through the unrelated act of killing his roommates.

## Fixation

Fixation is a warning behavior that increases in intensity, and involves a preoccupation with a person or event. There is often a strong, irate, or resentful sentiment attached to the behavior of fixation. Another important aspect of this behavior is that there is a parallel social or occupational deterioration that takes place concurrent with the fixation.

An example of fixation occurred in July of 2000 at Case Western Reserve University. An unknown person hacked into the computer of Biswanath Holder, a 62-year-old MBA student at the university, removing essential files from his drive ("The Man Behind the Crime", 2006). Holder identified a computer lab technician at the school as the perpetrator, informing the school administration and subsequently the police. Due to a lack of available evidence to support a criminal prosecution, Holder brought a civil lawsuit against the lab technician. The lawsuit was dismissed in 2003 due to a lack of evidence. Holder's three-year obsession with this perceived injustice, and according to the prosecutor, a mental deterioration resulting from his perceived conspiracy of the university against him, culminated in violent action. Holder dressed in tactical gear and

drove to the university, the object of his fixation. Upon arrival at the campus, he shot and killed one student and wounded two professors.

## Identification

Identification warning behavior is any behavior that associates the suspect with a warrior-type mentality or behavior that manifests as an obsessive association with weapons (Meloy, 2015). This can materialize as a fascination with military or law enforcement equipment, or as a belief that they are a vessel for a cause or some ideal. This person often identifies with previous attackers, and believes they are a type of "commando" fighting for their cause.

Identification warning behavior was present at Umpqua Community College, and displayed by Christopher Harper Mercer before his attack. Mercer was known as an avid gun collector and often went to the range with his mother. He was quiet and kept to himself, but would discuss guns with his neighbors if the opportunity arose. Mercer briefly joined the army, but was discharged before finishing basic camp. His neighbors described him as wearing military-style clothing, and he had expressed sympathy for a killer who shot two reporters on live television in Virginia. In an online message board discussing the incident, he stated, "I have noticed that people like him are all alone and unknown, yet when they spill a little blood, the whole world knows who they are" (Healey & Lovett, 2015, para, 9). It was also reported that Mercer was an atheist and against organized religion, and had questioned victims prior to shooting them as to the identity of their faith.

Another incident exemplifying the identification warning behavior in the role of an individual fighting for a cause is that of Tnuza Hassan at Saint Catherine University. Tnuza felt that she was a soldier for her community, exacting revenge on the United States for perceived wartime atrocities. Her actions were a direct response to these perceived injustices, and aimed to kill others for her beliefs ("College Campuses Vulnerable", 2018).

## Leakage

Leakage warning behavior occurs when the attacker notifies a third party that they intend to commit harm in some way. In adult mass murders, defined as 3 or more people killed in a single incident, 67% of adult suspects and 58% of adolescent suspects had displayed leakage warning behavior (NJ Board of Health, 2018). According to an FBI study of all school shootings, 100% of assailants had engaged in pre-attack leakage in some form (Meloy & OToole, 2011). Leakage can occur in many formats, including video recordings, artwork, journals, and social media.

Leakage was evident in the case of Tnuza Hassan at Saint Catherine University. Hassan had attempted to recruit her roommates to join ISIS with her, and had written them a letter detailing radical Muslim ideas and bringing back the caliphate. The roommates expeditiously turned the writing over to campus security after reading its contents. She was later found to have attempted to set fire to several areas of the campus.

Charles Whitman, The University of Texas shooter in August of 1966, also displayed the overt warning behavior of leakage, detailed below:

> Five months before the shootings, Whitman had a one-time session with university psychiatrist Dr. Maurice Dean-Heatly. During this session, Whitman told Heatly he had fantasized about going up on the tower with a deer rifle and shooting people. (Meloy & Otoole, 2011, p.5)

Dr. Dean-Heatly further stated that Whitman had expressed anger towards his parents for getting a divorce, had admitted to beating his wife, and was hostile throughout the session. Whitman later killed his mother and wife prior to the campus killings.

Another noteable case, although occurring at a high school, highlighted the behavior of leakage in an exemplary manner. This case occurred in Santana High School in Santee California, and was perpetrated by Charles Andrew Williams. Williams brought a handgun to his high school, killing two of his classmates and wounding 13 others. Before the attack, Williams advised multiple friends that he was planning to conduct a school shooting, even trying to recruit them to assist him. One of these friends, Josh Stevens, advised his father of William's intentions. The day before the attack, Williams told Katie Hutter, a twelve-year-old friend, "Tomorrow I'm going to bring a bunch of guns, and I'm going to shoot a bunch of people. I'm going to shoot people down, and you're going to watch" (Langman, 2015, p. 3). Unfortunately, even with this overt verbal communication, authorities were not notified, and no effort was made to prevent the attack.

## Energy Burst

Energy burst is a warning behavior in which the frequency of activity significantly increases related to the target before the attacks. This timeline is often close in proximity to the attack, occurring in the days or hours leading up to the event (Meloy,

2016). This behavior was evident at Florida State University, where Myron May, an attorney that had attended FSU, entered a library with a firearm and injured three students. May made multiple phone calls, texts, and left messages for friends and his girlfriend right before the attack. One of the messages to an acquaintance stated that he did not want to die in vain: "That message was a part of a flurry of emails, texts and phone calls in which the former prosecutor laid bare his torment" (FSU Shooter Myron May Left Message", 2014, para. 2). He also mailed a series of ten packages to various friends, and took to social media stating that he was a targeted individual and that a "handler" was encouraging him to kill to be free. He had also traveled to his girlfriend's house, telling her that the police were after him and were bugging his car.

May's intended targets were the victims that his voices were telling him to kill, and he displayed a dramatic increase in activity just prior to this attack. From this information, it is also clear that May was experiencing signs of threat control override delusions, discussed in previous pages. He had informed his girlfriend that people were talking to him through the walls, constantly debating what he was doing. Just before the shooting, May sent an email stating that he was currently being struck with a direct energy beam in his chest, which caused extreme pain. He said that he did not know how much longer he could handle it, which marked the beginning of the increase in activity leading to the culmination of his actions.

### Last Resort

Last resort warning behavior is a display of increasing desperation and distress through verbal or written actions, pushing a person to a state where they feel that they are

trapped. Persons exhibiting this warning behavior believe that their only escape from persecution is a violent act in retaliation to a perceived wrongdoing.

Last resort warning behavior was displayed in the case of Dr. Amy Bishop, a Harvard Ph.D. and neuroscientist at the University of Alabama in Huntsville. In March 2009, she was advised by the university's administration that her bid for tenure had been denied, due to her lack of significant research and publications. She appealed this decision and continually lobbied administration and colleagues to support her bid. Bishop became increasingly irate towards the university administration, and subsequently hired an attorney to sue the university for discrimination (Gates, 2010). Prior to the shooting, she borrowed a gun and began going to a range to practice shooting. In February 2010, during a faculty meeting and after learning that her appeal for tenure would be denied, she stood up and began firing. This act, from the perspective of Dr. Bishop as revealed through her actions, was justifiable to her and the last resort to an injustice committed against her in the denial of tenure.

### Directly Communicated Threat

Directly communicated threat warning behavior occurs when the suspect directly broadcasts their intentions either to the target or to law enforcement prior to the attack. Often embedded in this communication is the motive for the attack. At the University of California in Santa Barbara, this warning behavior was exhibited by Elliot Rodger. Rodger recorded multiple YouTube videos in the weeks before the offense expressing his negative feelings towards the world and women in particular. He also wrote a 141-page manifesto outlining his reasons for the planned attack. The day of the shooting, he

uploaded a final video to YouTube describing the carnage that he planned to cause in graphic detail (Jaschik, 2014).

Seung Hui Cho also directly communicated his intentions in the Virginia Tech massacre. Cho sent a 23-page document of photographs of himself in military garb and brandishing weapons, in addition to a written text to NBC on the day of the killings, outlining the plan he was about to put into action. He also included multiple video files in his manifesto, which described his motives for his crime.

## Elements of Course Curriculum

In addition to reviewing information essential to the college curriculum, the methodology deliver this information and structuring of the material must also be discussed. Research was therefore conducted regarding an effective academic plan to ensure the target audience are receiving and retaining the information contained in the curriculum. Stark and Latucca (1997) introduced pioneering work in the field of academic planning, which incorporates integral elements of an effective curriculum. These eight elements, identified by Stark and Latucca, are described in detail below.

Purpose – This element of the plan delineates the intended outcome of the course. This includes main points from the curriculum that instructors intend the audience to learn after immersing themselves in the course content.

Content – This element refers to the subject matter that the instructor incorporates into the course. This includes material that will be introduced to the learner, and will assist them in achieving the outcome of the purpose described above.

Sequence – This refers to how the course content is arranged and presented to the audience. The material may follow a chronological order as in a high school history class, or a theme-styled order as in higher education business course. Sequence also refers to how the material is conveyed by the instructor, and how the learner receives it. Other essential aspects of the sequence include the time of the curriculum, the space in which the curriculum is taught, the resources incorporated into the curriculum, and the organization of specific units of the curriculum.

Motivating factors are employed within a successful sequence element as well, summarized by Stark and Latucca in the following question: "Is it meaningful because it is conveyed in a way that demonstrates its relevance to their future lives?" (Stark & Latucca, 1997, p. 13). This is an essential element to highlight when creating an active shooter curriculum for college students, as the curriculum is based on historical events. Events of this nature will continue to occur in the future, and adequate preparation is necessary for their prevention in their educational community.

Learners- The ability of the learners must be taken into account when creating the curriculum, as well as which instructional techniques will be most impactful. Knowing one's target audience for a curriculum allows the curriculum to cater to the students' needs, goals, and objectives.

Instructional Processes – This element refers to the instructional activities and teaching strategies incorporated into the learning process. This can be in the form of a lecture style, an active learning environment, or a hybrid of both.

Instructional Resources – This element refers to materials that are incorporated into the learning process and the classroom setting. There may be a required text for the course, or the documents may be found in an online format. The curriculum may be disseminated within a classroom setting, or through an online module.

Evaluation – This element refers to how a student's progress is measured, whether they have achieved the course objectives, and whether the purpose of the course has been met. Typically this process is completed after the session has been concluded, but Stark and Lattuca recommend devising an evaluation plan as the course curriculum is designed.

Adjustment – This element refers to the implementation of evaluation process results. The evaluation process may alert instructors to a need for modification of an incorporated learning step.

Although all aspects of Stark and Lutucca's research will be addressed in the creation of this academic plan in Chapter III, further research concerning the elements most relevant to this curriculum will also be discussed. These identified elements include learners, instructional processes, instructional resources, and sequence.

**Learners - Profile of Contemporary College Students**

The target audience for this course of instruction are full-time college freshman enrolled at an institution of higher education in the State of New Jersey, or new transfers to a New Jersey higher education institution. Targeting this audience would ensure the instruction is received by all students enrolled full-time in college courses within the state, and also provide a timely delivery of the curriculum upon their entrance to the college environment. Stark and Luttuca explain that the curriculum is successful if the

academic plan is “reasonably congruent with students’ goals and needs” (Stark & Lutucca, 1997, p.19). This population, a potential attacker’s peer group, has been identified as the most likely community to be exposed to these indicators and therefore alings with Stark and Lutucca’s criteria.

It is essential to avoid viewing the student population landscape as one unit, and to delve into the contemporary college student profile in the State of New Jersey, in order to ensure all learners abilities’ are accounted for. Stark and Luttuca warn that steps should be taken to avoid “overlook[ing] the specific student for whom the curriculum is intended” (Stark & Lutucca, 1997, p.19).

The most recent statistics indicate that there are 238,847 undergraduate students currently enrolled in institutions of higher education full-time in the State of New Jersey (State of New Jersey, 2018). Of this population, the current race and ethnicity division is 43.9% White, 13.0% Black, 19.5% Hispanic, 8.8%, Asian, 0.2% Pacific, 0.2% American Indian, 2% two or more races , 5.2% alien, and 7.2% unknown. When breaking this population down by gender 47.8 % are men and 52.2% are female. When the focus turns to age, 3.2% are less than 18 years of age, 54.7% are 18-21, 17.9% are 22-24, 10.3% are 25-29, 4.7% are 30-34, 3.1% are 35-39, 3.6% are 40-49, and 2.2% are 50 and older. It should be noted that 0.3% of this college population is classified as unknown.

Because New Jersey houses a diverse population, both with respect to race and ethnicity and also age of learners, it is essential to be aware of the diversity of the intended audience when designing a curriculum. With such a diverse population, barriers to education may exist not only in language, but in culture impediments as well. Shooting incidents may be commonplace in some populations, but foreign to others.

Sensitivity to all learners when discussing this topic must remain a central theme. For example, Asian students may find gun violence unfamiliar; in 2014, there were only six gun deaths in the entire county of Japan, while over 33,590 homicides related to gun violence occurred in the same year in the United States (Low, 2017).

Generational gaps are also present, with younger populations potentially possessing a greater familkiarity with and possible desensitization to gun violence. This desensitization of younger generations could be derived from the increasing prevalence of these scenarios, while older generation students may still view occurrences of this nature as uncommon and unusual in their environments. Therefore, this curriculum will be created with a focus on universal applicability to all students keeping in mind potential sensitivity, by delivering the curriculum material in a palatable, non-graphic manner.

Although there are currently no statistics kept for the total number of higher education students in New Jersey that report having a disability, there are specific accommodations that must be made to ensure the rights of all learners with disabilities attending college in New Jersey. The Office for Civil Rights in the U.S Department of Education mandates (under Section 504 of the Rehabilitation Act 1973 and Title II of the American with Disabilities Act 1990) that specific accommodations be made to provide a discrimination-free environment (U.S Department of Education, 2011).

These acts are enforceable in higher education in New Jersey, and require that adjustments be made to ensure any impediments to learning based on discriminatory practices are removed. Students must first identify as possessing a disability, provide supporting documentation, and request the assistance relevant to their learning environment. Examples of assistance that may be provided include note takers, recording

devices, extended time for course work, and seating or room accessibility accommodations.

Institutions may determine that further accommodation is necessary to ensure a productive learning environment based on the student input. It is, therefore, the responsibility of higher education institutions to provide these accommodations, and each institution's administration will coordinate adaptations for students with disabilities in the dissemination of the course. It is important to note that although supplementations to the learning process can be implemented, the course curriculum itself would not need to be modified in order to be compliant.

## Learner's Motivation Towards the Learning Process

Erickson and Strommer (1991) found in their research of college freshman that one of the top three requests was that professors provide a clear and concise syllabus. Clear goals and objectives from the outset must be conveyed to the student to provide direction for the duration of the class. Delineating pecific goals can influence a student's intrinsic motivation to accomplish course objectives provided by an authority figure such as a professor.

Initiating this motivation is another principle that deserves exploration, coupled with methods that can make this possible. Instructors benefit from recognizing student interests and expand their knowledge based on these interests, thus enhancing motivation to learn. Motivation is also a important factor when curriculum design enables success, and the professor values the learners' progress. Incentives built into the course, such as mandated completion due an established course requirement, the receipt of a passing

grade, or the safety of the campus, integrate motivation in the class from a student's perspective.

Performance enhancement also occurs when a student fully engages in the curriculum. Stark and Luttuca (1997) observed, “More than 80% of the faculty we surveyed said that they tried to find ways to motivate or interests students to help them learn” (p.184). The leading motivational factor for this curriculum, the creation of a safe environment and community in which to attend college, further enhances students’ willingness to learn. Also, making the course a pre-requisite for commencing their freshman year or first class at a New Jersey institution could further increase motivation to complete.

Correlating new concepts in an instructional curriculum with student's prior knowledge on a particular subject can help to strengthen absorption of the course material (Stark & Luttuca, 1997). By making connections with students’ prior knowledge, we can enhance student confidence while increasing their motivation for learning about the topic. By correlating information that students have previously been exposed to regarding active shooter incidents on a college campus with newly introduced information regarding their role in preventing future occurrences of this nature on their campus, optimal attention and motivation can be achieved.

### Instructional Processes for the Intended Target Audience of the Curriculum

We must also look at the research concerning optimal methods of course delivery to higher education first-year students to ensure the effectiveness of the curriculum. This is based on the core elements identified by Stark and Luttuca, in addition to

contemporary teaching pedagogies that target 21st century students. The paradigm and needs of the student must remain at the forefront of our planning.

Stark and Luttuca (1997) highlight the contradiction in the fact that most higher education teaching is conducted through the lecture method, although faculty aspire to have their students think skillfully on their own. The authors suggest "that faculty members expand their repertoire of teaching strategies if pedagogical choices are consciously recognized as part of the curriculum development" (Stark & Luttuca, 1997, p.14). Therefore, in order to create and implement a practical curriculum that will reach college students, the most effective elements of information dissemination in higher education will be reviewed in the context of our intended target population.

## Information Processing Approach

The method through which instructors deliver information is crucial in determining absorption and retention. Stark and Luttuca (1997) reveal a learning theory that the psychological community has since embraced called the information-processing approach, which enables information absorption and retention in college students. While it was once thought that intelligence was a definitive trait that could not be manipulated or expanded upon, experts are now aware that curriculum instruction is essential to knowledge absorption. Learners are not allocated a definite amount of learning capacity according to their fixed intelligence; they are rather able to accept new information according to the processes employed for dissemination. The focus is on the operation of the curriculum's dispersion, rather than the content provided by the instructor. Optimal aspects of curriculum dissemination will be examined to ensure effective instruction of this curriculum.

## Visual Learning Theory

Kouyoumdjian (2012) explains that course curriculum that appeals to visual stimulation can enhance the learning process. The reasoning behind this theory is that the brain is focused predominantly on visual imagery as opposed to strict word absorption. He points to the fact that centers in the brain that process visual stimulation are significantly larger than those processing verbal stimulation. The subsequent recall of visual learning stimulation, or the depiction of words versus spoken words, is also more substantial as recent studies have illustrated. An example of this is the spoken words "tree, glove, and hat" recalled by a person as opposed to the enhanced recall of pictures of the same three items. As a result, Kouyoumdjian (2012) concludes that "based upon research outcomes, the effective use of visuals can decrease learning time, improve comprehension, enhance retrieval, and increase retention" (para. 6).

One method through which this can be achieved is using PowerPoint presentations. This method has gained popularity, and studies have concluded that PowerPoint graphics improve student recall and can be beneficial to student learning (Bartsch & Cobern, 2003). PowerPoint presentations can be infused with relevant pictures, videos, and graphs, to supplement critical material, increase learning capabilities, and decrease absorption time. Significant points can be highlighted using a visual representation, which can enhance students' recall ability.

## Attention Span

Proper student attention must be sustained to support a compelling and useful curriculum that delivers the intended message in the most palatable format. Lessons that

limit the amount of new material and theories per module can enhance and increase retention abilities. Allocating adequate time for each topic ensures students do not lose concentration or tune out the presenter. If a presentation on a subject is too long in duration, students tend to lose focus (Bunce, Flens & Neiles, 2010).

Traditional views of learning in higher education held that the professor should use a lecture-style tactic, disseminating all relevant information to the students within the time allotted for the course. Professors believed that using a structure other than the lecture format would not leave enough time to disseminate course content. Johnson, Johnson, and Smith (1991) explained that during lectures, students tend to lose focus as the lecture progresses. This, in turn, discourages high levels of retention, as theories and content are often built upon as the lecture progresses. The lecture method also operates under the belief that all students are auditory learners. Through student feedback, the researchers discovered that students generally dislike lectures.

Bunce et al. (2010) found that students begin to lose attention within the first 10-20 minutes of a lecture-style teaching method. They discovered that student's minds wandered between engaged and disengaged states as the lecture progressed. Students can increase attention spans over extended periods if a demonstration or alternative teaching strategy precedes the lecture. Bunce et al. (2010) suggested varying student-centered pedagogies to increase engagement of students during class, and to improve their attention span when a lecture is needed.

## Active Learning

Stark and Luttuca (1997) revealed that student involvement in the learning process is essential for retention. A simple lecture-style forum, in which the student disengages from learning, can diminish retention ability. Through a professor's interactions with the students, a comfortability is established with the instructor, increasing intellectual commitment on both ends. This can be accomplished through the use of active learning techniques, where professors engage students through discussions and exercises that relate students' past experiences and viewpoints to course topics (Chickering and Gamson, 1989).

Active learning refers to the engagement of students in the learning process in some manner within the curriculum. Dabbour (1997) observed, "Active learning involves the student in talking and listening, reading, writing, and reflecting; activities that can be performed alone or in combination" (p. 300). This education style presents a stark contrast to passive learning, in which a student receives information from the instructor for the duration of the class period and is not provided with a platform to interact in any manner. Stark and Luttuca (1997) noted, "Psychologists have helped us recognize that students should be active participants in the learning experience and active processors of information" (p.199).

A fundamental tenet of active learning is the mindset that students are participants and involved in the learning process, rather than merely listening and absorbing the material. Emphasis is shifted from the strict transfer of information to the development of student learning skills. As a result, students are engaged in the process

and incorporate higher order thinking methods, learning to examine, analyze, and search for new information on their own.

Techniques that can be integrated to fulfill the active learning model include "brainstorming, small-group work, cooperative projects, peer teaching and partnering, and writing" (Dabbour, 1997, p. 300). Other techniques that have proven effective include role-playing, fieldwork, case studies, practical problem solving relatable to contemporary events, and simulations of past events or structured scenarios. It is important to note that due to the logistics necessary for active learning participation, it is strongly encouraged that classes size remain manageable and not be too large or cumbersome (Bonwell & Eison, 1991).

Dabour's study (1997) instructed librarians to deploy active learning strategies at California State University in San Bernardino while conducting a freshman seminar on the use of the university library. All of the active learning strategies incorporated into the course received high ratings, with the use of cooperative effort in the form of small group work being ranked as most beneficial and pleasurable for the students. Class discussions were also incorporated and rated highly by the students. It is important to note that Dabour (1997) also emphasizes the importance of assessment and evaluation of learning progress when implementing active learning curriculum techniques to ensure students remain attentive in the midst of this multifaceted process.

## Cooperative Learning

Cooperative learning has been studied extensively as an effective style of active learning. This method uses small groups and immerses students in a dynamic,

collaborative learning effort (Keyser, 2000). Tubbs (2016) concluded that the amount of knowledge present in a group is more significant than the knowledge of just one person. Tubbs (2016) elaborates, "Even if one member of the group (e.g.) the leader, knows much more than anyone else, the limited unique knowledge of lesser-informed individuals could serve to fill in some gaps in knowledge" (p. 31). Learners in groups incorporate different approaches to problems, allowing the group as a whole to establish varying paradigms and views on the same issue. This increase in perspectives on a task exponentially improves solvability. Through the involvement of group's members, students learn from each other's experiences and grow as a group when implementing this method. It is imperative, as is evident from Dabour's study detailed above, that when incorporating a cooperative learning theory that the instructor monitors groups to ensure participation of all students.

One productive variation of cooperative learning is the use of a jigsaw technique, which allows students to study a specific portion or slice of an issue in small groups, after which a group report or discussion takes place among the larger class. Other pieces of the problem, worked out by different groups in the class, allow for an overall picture of the problem to be established.

## Instructional Resources - Social Media Integration

Twenty-first century higher education has expanded on 20th century techniques, advancing methodology of course instruction to enhance student learning. Students in the 20th Century were subjected to lecture-style teachings, memorizations, and a deluge of information thrust at them in a classroom setting. They were forced to receive this

information with minimal interaction. Advances in 21st century teaching methodologies have proven useful for higher education students' retention capabilities.

Bassendowski and Petruka (2013) offer a "push-pull" technique in which students are provided specific information related to the course ("push"), and are then directed to discover further learning through social media and alternative sources ("pull"). This method of education can be achieved within a realm of comfortability with contemporary students through the effective use of social media.

Social media can be defined in many ways, but is often most accurately represented by examples rather than a strict definition. Joosten (2012) characterizes social media platforms as follows: " Social media include web based internet sites that facilitate social interaction in many ways including social networking; social bookmarking; microblogging; video image and audio sharing' virtual worlds and much more" (p.6). Social media outlets with which students have an established comfortability can be incorporated into the learning process to propel the learning experience. A new pedagogy can, therefore, be explored in which students participate in a hybrid course through classroom participation in combination with online modes of instruction. "Social software applications promote active participation, learner self-direction, and personal meaning construction" (Tess, 2013, p.A62).

The use of social media and various mobile devices to access this social media can be viewed as an educational force multiplier for instructors. In today's society, the use of social networking websites (SNS) has grown exponentially in college-aged individuals. In 2005, it was reported that only 12% of individuals in the 18-29-year-old

age group used some form of social media, while in 2015 it was reported that 90% of this age group were engaged in social media in some way (Perrin, 2015).

When focusing specifically on social media use among higher education students, Perrin found that social media is accessed by 76% of those with college or graduate degrees, and by only 54% of with high school diplomas or less. Another study found that 94% of college students have a Facebook account, access the system 10-30 minutes each day, and possess between 150-300 friends on the site (Tess, 2013). Tess (2013) remarked, "Given the prevalence of social media in general and the saturation of SNSs in particular, higher education instructors have looked to the technology to mediate and enhance instruction as well as promote active learning for students" (p. A61-62). By accessing college students in an environment in which they are already comfortable, information can be disseminated clearly, efficiently, and promptly. Research conducted on the use of social media and mobile devices to access course content was viewed positively by students overall. This method also encouraged them to branch out to other social media sites not often used for learning, such as Facebook, to further their quest for knowledge (Dabbagh & Kitsantas, 2012).

The speed of access using social networking sites was also crucial for students, and they were able to use their devices to access course information quickly, rather than in a classroom where they must wait for documents to be handed out. Availability of course materials allowed students to begin their learning immediately and to access further information on particular topics by accessing related blogs and other various online venues for education. Students found themselves more engaged and participated more through the ease of using social media, mobile devices, and incorporated video

conferencing tools with other students and the instructors. This collaborative learning effort allows for a shared learning environment as students can learn from their peers as well as the instructor. Students also reported that they enjoyed "communicating more often and usually in smaller chunks more effective and efficient" (Dabbagh & Kitsantas, 2012, p.21).

The University of Northbrook integrated the use of Twitter posts into their course content to facilitate class discussions (Dabbagh & Kitsantas, 2012). Students rated this access highly as they did not have to increase time on a device by logging in to a traditional college website learning module. Students could post to their class Twitter page instantaneously, and collaborative learning could happen anytime or anywhere. Students were also able to use this social media website to "follow" researchers or organizations they were studying, further enhancing their learning experience.

When focussing solely on the incorporation of social media sites within higher education, many advantages have been uncovered. Although various sites may be incorporated, I will focus on Facebook, blogs, and Twitter, and allow extension of these conclusions to alternative social media outlets. The reason for this is because this is an emerging model of higher education instruction in which research on various types of social media is still scarce.

## Facebook in Learning

Facebook is often the most recognizable social media site mainly due to its popularity across all age groups. One anecdotal study of an introductory inorganic chemistry lab at Iowa State University focused on students enrolled in a web-based

blackboard course module for instruction while experimenting with an optional Facebook page for the class as well. When comparing the two portals, it was found that the number of discussion posts was four times greater in the Facebook portal than in the course blackboard portal, and posts were consistently more complex. Students attributed this finding to the ease of accessing Facebook compared to their class Blackboard site (Tess, 2013, p.A63).

This case is supported by research on social media in higher education conducted by McGloulin and Lee (2010), which reports that social media can be a productive platform due to its inherent active learning attributes. They argue that learning should be reciprocal in nature, and social media can support this function. Social media can incorporate methods such as timely interactions, dialogue, and collaboration of peers and instructors as a community.

In another study by Irwin, Ball, Disbrow, and Leveritt (2012) the incorporation of Facebook into the course curriculum was researched. Students in four university courses were provided with an initial questionnaire before the commencement of the class regarding their belief that Facebook would assist them in their learning process. They were then asked at the end of the course if they would recommend its use in future applications of the course. A majority of the students, 78%, believed it would enhance learning capabilities before the class, while 76% recommended this technique for future courses post class.

Another study conducted by McCarthy (2010) surveyed first-year architecture students regarding the use of Facebook in their course curriculum. A staggering 95% reported that Facebook helped them to develop peer relationships during the course,

while 92% felt the virtual collaborative discussions during the class were beneficial. Perhaps the most influential finding for social media use from this study was the fact that course engagement was significantly increased when observing the activity logs for Facebook specific to their course.

## Twitter in Learning

Junco, Heiberger, and Loken (2011) conducted a study to determine whether the use of Twitter in a course curriculum could increase student engagement. Academic engagement was defined using specific categories, including academic challenge, learning with peers, experiences with faculty, and overall GPA for the course. Course curriculum incorporated Twitter as a venue for housing activities such as group discussions, class reminders, and questions regarding class topics. Their findings were beneficial for contemporary learning techniques, as they found that students engaged more in the class overall when Twitter was incorporated. They also found that students using Twitter received a significantly higher GPA in the course when compared to the peer group that did not use the social networking site. Reasons for this improvement included the increased interaction between instructor and student, active learning incorporation, quick feedback from peers and instructors, and an increase in time on task.

## Blogs in Learning

Embedded in the online social media methods of education are techniques such as blog posts, which allow professors to closely monitor the progress and direction of postings while leading students towards the discovery of further knowledge on the subject. Bassendowski and Petruka (2013) found, “Together with the faculty member,

students actively contributed to creating and/or editing blogs on professionally relevant topics as well as posting photos, videos, links and articles that related to and added to course content" (para. 4). Collaborative learning is enhanced as students must also absorb and comment on their peers' discoveries as well, and reflect in peer groups on problem-solving techniques regarding historical case studies or contemporary issues.

Sim and Hew (2010) reviewed previous data, consisting chiefly of surveys and students interviews , regarding the use of blogs in higher education. Through this research, several applications of blogs were established that may benefit the higher education community. Some of these benefits included blog use as a tool for posting and tracking assignments, social interaction between peers including peer evaluation, use as a journal to review learning materials for the course, and the ability to express emotions related to the class. Further survey study on this topic suggested that students found the blog's ease of use beneficial and expressed interest in its continued use within their studies.

### Curriculum Sequence within the Current College Orientation Structures

Although there is no current state-mandated structure or requirement for new student orientations in New Jersey, higher education institutions generally provide incoming students with some form of orientation. The delivery of this newly-created curriculum this kind of forum would provide the most significant impact overall, as all incoming full-time students would be exposed to the material before their entrance into the college or university. The goal of presentation to the masses coupled with the information's essential timing would, therefore, be achieved in this setting. For this reason, a sample of current New Jersey universities' orientation formats are provided for

optimal awareness in preparation for positioning new material within this existing structure.

Caldwell University, a four-year private college with approximately 2,500 students in Caldwell, New Jersey conducts a mandatory one-day orientation for new students. The current orientation schedule consists of advisement and registration, basic information about the school resources, a campus tour, and completion of school photo identifications. This schedule conforms to an eight and a half hour day ("Summer 2019 Orientation Schedule", 2019), and is structured to include minimal free time.

Ramapo College, a public university with over 6,000 students in Mahwah, New Jersey, also conducts a mandatory new student orientation prior to the commencement of the semester in which students are subjected to a six and a half hour schedule of events. This schedule includes an academic program overview, assistance with course registration, involvement in various college groups, and a campus tour ("Student Schedule", 2019).

Fairleigh Dickinson University, New Jersey's largest private institution with over 11,000 students, conducts a two-day orientation at their Florham Campus in which students reside at the university overnight ("Florham Campus Orientation 2019", 2019). Day one of the orientation commences at 9:00 am, and the orientation concludes at 2:00 pm the following day. This orientation includes general information about the university, introductions to faculty and staff, participation of various organizations operating on campus, and diverse team building activities including dodgeball, an obstacle course, and karaoke.

Monmouth University, a private University in West Long Branch, New Jersey, offering classes to over 4,500 students, also mandates a two-day orientation. This orientation includes social activities with other new students, as well as general information regarding the institution ("Orientation", 2019). Students are also provided the opportunity to work with school advisors and develop their schedule for the upcoming semester. New students are also introduced to faculty and staff members in various departments at the university.

Rutgers University, the largest university in the state with over 50,000 undergraduates, and Montclair State University, a public research university with over 16,000 students, share similar formats to their mandated orientations. Both schools contain various informational modules applicable to college freshman throughout an eight-hour day. Each university also includes a Title IX module, which instructs students on protections against bullying, sexual harassment, and discrimination based on gender. Rutgers also implements a SCREAM (students challenging realities and educating against myths) training, which is an interactive peer education group addressing sexual assault, interpersonal violence, stalking, bullying, and domestic violence ("What is SCREAM Theatre", 2018). Montclair State University offers a counseling and psychological services overview regarding assistance available to students if needed ("Freshman Orientation Schedule", 2018). Rutgers dedicates approximately one hour to these combined modules, while Montclair currently dedicates approximately twenty-five minutes total to the modules.

Looking at current structures, most institutions mandate a full day of orientation with some currently extending this process to a two-day event. Most of the current

orientations offer basic information regarding registration, campus resources and organizations, and faculty and staff meet and greets. Although they are not currently extensive or in-depth, schools are delivering training geared towards topics concerned with the safety of the population, evidenced by the Title IX and SCREAM Training at Montclair and Rutgers.

## Current Behavioral Indicator Curriculum Implementation

Although a program of this nature was recommended in New Jersey in 2007 by Governor Corzine's Task Force for higher education institutions in response to the Virginia Tech shooting, no further implementation schemes have been enacted in a standardized format throughout the state. The State of New Jersey provides training of this nature to primary and secondary schools in the state to a limited audience. The New Jersey Department of Education's partnership with the Sandy Hook Project will provide ten of the 678 school districts in New Jersey with standardized behavioral indicator training and suicide awareness and prevention courses.

Looking outside of the State of New Jersey for an established curriculum in higher education, successful implementation of a proactive strategy in direct response to Virginia Tech was initiated in 2008 by William Rainey Harper College in Palatine, Illinois. This institution created a threat assessment and behavioral intervention team, titled the Harper Early Alert Team (HEAT), on their college campus. Bennet and Bates (2015) note, "HEAT is intentional about creating a culture of reporting at the institution" (p.13).

One of their primary roles is educating the campus community in the recognition of threatening and concerning behaviors in an attempt to prevent violence on their campus. This organization conducts training during new faculty orientations that educate faculty on warning signs identified in the "findings of the U.S. Secret Service, FBI, and other agencies" (Bennet and Bates, 2015, p.13). HEAT's online behavioral training module, *Recognize, React, and Respond*, can be found on their college website and is accessible to the entire college community.

The college administration's proactive program can serve as a model for other institutions in raising awareness of behavioral indicators that could ultimately lead to violence. Harper reported a change in campus culture "with a focus on prevention through reporting of warning signs" (Bennet and Bates, 2015, p.14). The college has experienced an increase in referrals to their threat assessment and behavioral intervention team each year since the implementation of the program.

A shortcoming of this particular training is that it is tailored to faculty, a population only exposed to students for brief periods and in a manner not necessarily conducive to revealing overt signs of potential violence. As observed in previous research, "93% of the individuals who had advanced knowledge of an attacker's plan were students" (Bennet & Bates, 2015, p.3). Through the alignment of this curriculum in New Jersey with both current research on behavioral indicators and with the research on populations best positioned to observe these behaviors, an effective course curriculum can be established.

Another institution that is proactive in educating the higher education community in active shooter awareness is Northern Virginia Community College in Annandale,

Virginia. Training encompasses a comprehensive response to an active shooter by the campus police department and is available, upon request, to college faculty, staff, and students. Embedded in this training, which is dominated by a general awareness and response tactics, is one slide dedicated to indicators of potentially violent behaviors.

A shortcomming of this training is the minimal focus and spent time on behavioral indicator recognition. While this slide displays valuable information regarding risk factors to the community, the continuum of indicators is not fully covered, and the importance of overt warning behaviors is not provided. Another shortcomming of this training is that it is available upon request and not mandated by the institution. Therefore, dissemination of this valuable information is only reaching a portion of the target population.

## Summary

Active shooter events are continuing to rise with a staggering 2,900% increase in incidents and a 10,314% increase in human casualties from the years 2000 to 2017. Each of these incidents not only brings about physical injuries or death, but drive emotional fear that lingers on campuses following each act of aggression. It is therefore imperative to modify our mindsets and develop alternative methods to mitigate the catastrophic repercussions caused by events of this nature. Emergent research has produced knowledge to this effect, which can be used to shift away from reactionary response methods to a more proactive strategy.

Unfortunately, however, this information is not reaching the critical population when it comes to the safety of higher education institutions in the State of New Jersey,

namely the students. The community, defined in this dissertation research as the group best positioned to observe indicators of this nature, is the attacker's peers, or other students. By creating a course curriculum to educate college students in New Jersey on the awareness and recognition of behavioral indicators of an individual prior to the act of violence, a productive change in mindset can be achieved. This paradigm shift can ultimately serve as a bridge to a safer community for institutions of higher education in the State of New Jersey.

Using available research discussing behavioral indicators, this dissertation has incorporated this material into a course curriculum aimed at educating college students in the State of New Jersey. This curriculum integrates not only the relevant research on behavioral indicators, but also includes essential elements of a course curriculum, supplemented with effective teaching methods for students at higher education institutions.

Active learning techniques are introduced to increase student collaboration, and lecture time is kept to a minimum. When the lecture is introduced, a PowerPoint is used, introducing visual reinforcement of material merged into the learning process. Small class size is essential to ensure active learning is performed at optimal levels. Techniques incorporated include case studies, active student participation, and group work. The use of social media is introduced through a hypothetical Facebook and Twitter page, and blog dedicated statewide to update learning processes continually. Motivational factors, including a requirement of completing the class before other coursework may be commenced, as well as an emotional appeal to individuals' obligations to promote a safer community will also be incorporated.

# Chapter III

# DESIGN AND METHODS

## Purpose

The purpose of this study was to create a college curricular module or set of modules that could be introduced as a part of new student orientation, and that would provide insight into behavioral indicators that could be recognized prior to a potential assault on a college or university campus in the State of New Jersey. It is therefore essential to look at research investigating all active shooter incidents, even outside the scope of campus attacks, to identify all significant factors that can enhance the ability to ensure a safe campus environment and mitigate a threat before initiation.

New Jersey currently houses 85 colleges and universities (State of New Jersey, 2018). These college campuses pose a unique threat as open targets of active shooter incidents; therefore, a method for disseminating this information to the higher education population is essential. The community that this information will be broadcast to is the incoming student population on campus. By distributing this information to incoming students, both freshman and transfer students, one can ensure the entire student body is reached before their entry into the higher education environment, and the population most able to effect positive change is exposed to the curriculum.

This research was guided by the following questions:

Question #1: What is a desirable curriculum module to facilitate the education of college students in behavioral indicator commonalities exhibited by perpetrators before active shooter events, thus enabling these students to act preemptively prior to an attack?

Question #2: What content and instructional processes should be included in the curriculum module to create the most effective curricular design for the target learner population of students at higher educational institutions?

The field of observable behavioral characteristics of active shooters is emerging as a valid science that can be of valuable use to the higher education community in New Jersey. The discovered commonalities in active shooters behavior that has been identified through this research, however, are not currently reaching the populations of college campuses in the State of New Jersey. This unfortunately creates a disparity in the accessibility of this information to the higher education student population. As a result of this deficiency, a curriculum must be constructed and provided to higher education students, enabling a safer environment through proper education of in the New Jersey higher education community.

It is also essential to adhere to crucial elements of curriculum design established by Stark and Luttuca, and apply this framework to the creation of a successful academic plan. Stark and Lutucca (1997) identify "purpose" as the first element of a course curriculum. The purpose of this curriculum is the driving factor in the implementation of this academic plan, which, as a result, will permeate each element of construction throughout the process. By carefully formulating the course's educational goals and objective based on the established purpose of the curriculum, the modules will support this purpose and achieve the educational outcome of the course. The final objective is, therefore, to educate students and construct awareness of active shooter behavioral commonalities in the higher education environment.

## Methods

This method of dissemination is in the form of a curricular module, which incorporates the behavioral indicators identified in the research. The educational practice of preparing our students using a behavioral identification training module could substantially reduce the risk posed within the higher education community in New Jersey. This curriculum was designed for incoming college students across all college institutions within the State of New Jersey. Once created, this course of instruction can be integrated into the freshman orientation schedule.

Significant research has been conducted concerning the most appropriate teaching methods for the identified population of college students with a view to achieving optimal absorption of this material. The framework for this research was derived from the Stark and Luttuca element of "instructional processes" specific to college learners. Stark and Luttuca remarked, "Many faculty have accepted the idea that active learning, student involvement, and intentional association of new ideas with old ones enhance learning" (Stark & Luttuca, 1997, p. 107). As a result of this research, multiple active learning methods have been implemented in this curriculum, with the aim of maximizing student involvement. These methods will be further explored as each section of the curriculum's instructional process is described later in this chapter.

A bridge will also be created to associate new ideas with old ones. Students currently believe that if an attack were to happen on their campus, police would be summoned and the assailant would be captured immediately. This curriculum intends to challenge this paradigm through a new modality of thought delivered via the educational

modules. This new paradigm is intended to empower students and transform them into an integral part of the safety community.

This empowerment technique also leads to another aspect of Stark and Luttuca's instructional process element regarding motivation. Stark and Luttuca (1997) revealed that motivation is an essential aspect of a student's learning abilities as well as their retention competency. Students will be led to the realization, through the PowerPoint and lecture-discussion, that their involvement in this course is more significant than the act of receiving credit for attending mandatory training, and can ultimately positively impact the lives of those in their community.

The content of the course would, therefore, compliment and enhance the instructional processes. Stark and Luttuca explain that "selecting subject matter to help students achieve educational objectives is crucial" (Stark & Luttuca, 1997, p. 26). The material selected for this curriculum is based on an emergent philosophy, supported by scholars and governmental agencies, lending credence to the curriculum authenticity. Relevance in today's society is also crucial, so that the content does not numb students with definitions and theories, but rather applies these theories to real-world events. The content of the curriculum was strategically chosen from relatable events around the country in higher education environments to create an association with the learners' surroundings.

## Participants

Stark and Luttuca (1997) provided evidence that the overall success of a curriculum depends heavily on whether the learner is motivated to embrace the topic,

whether the topic connects in some way to their current environment, and whether the student can visualize using the material in the real world. They further explained that this is an area where many academic plans fall short. The creation process is not currently viewed from the paradigm of the learner, and that the needs of the student are absent from the planning process. When a student perceives the material as vital to them personally, they are more likely to absorb the material.

When constructing this curriculum, emphasis was placed on the paradigm of the student and the usefulness of this material to them in their current college community. The creator of the curriculum, the instructors, and the evaluators would optimally continue to align themselves with the ultimate objective of improving the overall safety of the college community. Students would be able to recognize the importance of this curriculum applied to their personal well-being as well as their classmates, thus realizing the importance of the materials. Each element of the curriculum was designed to be applicable to the students and reach them in their environment. In particular, the use of case studies taking place within a higher education institution establishes a connection between the material and the learner.

Learners of this curriculum will be college freshman in higher educations institutions in New Jersey, in addition to student transfering into a New Jersey college or university. When observing the demographics of New Jersey college students, it is apparent that learners fall into varying age groups, races, demographics, and ethnicities. Stark and Luttuca warned that “it is necessary to examine the learner’s abilities, goals, and effort to predict how appropriate and successful an academic plan may be for them” (Stark & Luttuca, 1997, p.28). They also concluded that it is imperative to take into

account groups that may be relatively new to college settings, such as minorities groups and older generations. All of these populations are represented in New Jersey's demographics and must be accounted for in our learning environments. This curriculum was therefore created to ensure adaptability and understanding for all students, and to ensure sensitivity around a topic that may trigger emotional responses in students of all ethnicities and ages. Some cultures and generations may have exposure to violence, while others may not, and sensitivity in the presentation of the material was of paramount concern when constructing this curriculum.

Students with disabilities, present in New Jersey institutions, will also be afforded assistance from the institutions as needed while attending this course. Examples of this may include classroom accommodations regarding accessibility, audible or visual accommodations, note takers, and additional time with the curriculum if needed.

Classroom size will be limited to forty students per session, as active and collaborative learning techniques will be employed in this process, as research has shown that large class sizes are not conducive to this style of learning (Bonwell & Eison, 1991). Small class size allows for optimal, productive conversations, and integration of student knowledge within the group setting.

## Materials

Another essential element of a course curriculum described by Stark and Luttuca (1997) is instructional resources. The authors observed, "At the college level, our attention might turn to well-prepared and committed faculty, a supportive college infrastructure, and overall financial stability" (Stark & Luttuca, 1997, p. 94). As with

most newly established college programs of this nature, funding from the state is a crucial factor that requires consideration. Funding would be needed for instructor salaries, technological equipment, social media establishment, and supplemental teaching materials. One avenue that would ensure the proper funding and could be explored is a New Jersey attorney general mandate requiring that all new college students take the course. This method would secure the necessary funds for implementation and sustainment of the course, as state funds are provided for any mandated initiative.

Competent instructors from each institution would be trained from a state level, thereby becoming certified by the state to deliver the material for each university. This would ensure an appropriate and thorough understanding of the course material taught by the instructors, in addition to ensuring standardization of course delivery at each institution.

Infrastructure considerations at each college must also be considered, and advisements would be made from the state with respect to the optimal environment for delivery. A college classroom setting able to accommodate 40 students comfortably is necessary to complete this curriculum. This classroom setting will require a computer and projection screen to deliver the PowerPoint instruction. The projection screen will have to be large enough to be viewed by the entire classroom and speakers for audible portions of the PowerPoint will also be needed. Laminated handouts will be distributed to each student detailing case studies and scenarios whithatch will be examined in the class. An IPad, tablet, or laptop, able to be projected onto the aforementioned screen will also be needed to display social media sites. Social media, a valuable instructional

resource in contemporary education of college students, will be used to continue to advance student knowledge on the topic after the course delivery.

## Design

This curriculum content will consist of essential behavioral indicators and will be organized and designed to deploy contemporary higher education teaching methods. The curriculum will incorporate the use of PowerPoint for a visual representation of teaching points. Videos of past university assailants, which display components of their overt behavior and support the teaching points, will be used. Case studies will be covered, relating the behavioral aspect teaching points to actual university shooting cases. Active learning techniques will be included using small group exercises in an effort to recognize critical behaviors utilizing scenarios based on reality. Students will be organized into approximately four groups of ten to conduct small group work and collaborate as a team in their classroom environment.

Supplemental social media platforms, to include Facebook, Twitter, and blogs, could be created and operational within the state to encourage continued learning and allow for posting of the most current and relevant topic after the course has been completed. Social media could be utilized on a broader scale for the class as all students that attend the course will be directed to continue their learning on this topic by periodically visiting these platforms.

The curriculum will be divided into four sections with each section being allotted a specific amount of time for instruction of various methods. The course will commence with a short video, embedded in the first slide of the PowerPoint portion of the course of

instruction, to achieve maximum attention for the remainder of the course. This video will provide a glimpse into the material that will be taught, through a dramatization of events, as well as displaying the preferred outcome of knowledge taught in the course. It is intended to maximize buy-in from the students, in order to attain optimal material absorption through motivation. By fulfilling the students' purpose in the process of identification of behaviors indicators within the community, campus safety will be reinforced.

The design sequence of the material is another essential curriculum element that Stark and Luttuca identified. They remarked, "Sequences and structures result from the decisions about arranging content in the academic plan" (Stark & Luttuca, 1997, p. 28). One of the main components of the sequence, described by Stark and Luttuca, is the organization or the arrangement of the material and instructional units relevant to the objectives of the course. This proposed curriculum adheres to this framework, as each module builds upon the previous one and guides the student to implement what they have learned.

For example, students are initially provided relevant information by the instructor in a lecture format, and are then are exposed to real-world scenarios and case studies, representative of previously discussed material. Students are then given an opportunity to actively apply this material to assessment scenarios in active learning, small group settings. Finally, students are instructed to continue the learning process on their own using social media platforms. This sequence enables this process through a carefully constructed curriculum, which provides a framework for the achievement of curriculum objectives.

Another important aspect of sequence as described by Stark and Luttuca (1997) is time. Time refers to the duration of the instructional units delivered. The length of this course of instruction, a four-hour block, was developed with two themes in mind. First, the curriculum time must be able to conform and be adopted into a contemporary college orientation without unnecessary intrusion into the operation of the process. Looking at current structures, it is unlikely that the course would be able to dedicate more than four total hours to instruction, as some orientations would unnecessarily reach a three-day mark.

Second, the course must still be able to provide crucial information effectively and ensure a sufficient "time on task" to the material. Upon the strategic organization of each of the four delineated modules, and taking into account the incremental movement from each module to the next, four hours allows for efficient delivery of intended curriculum material, and encompasses all material required to achieve the objective of the course.

## Procedure

The curriculum has been divided into four sections, or modules, with a description of each module and its content. Instructional processes that are implemented in each section are also included in the module description to ensure adherence to the valuable teaching framework discussed.

Part One: PowerPoint Lecture – Time Allocated: 90 minutes (See Appendix A)

This section will include an interactive lecture with all pertinent information on the topic of behavioral indicators that may be used to prevent an active shooter event.

Information from this section is drawn from the research conducted on behavioral indicators of active shooters in the literature review. Lecture time will be limited to 90 minutes, and the lecture format will be supplemented with visual aids in the form of PowerPoint slides. Prior to the start of the lecture, the Sandy Hook Promise video will be shown to convey the motivating factor behind the curriculum of this nature and to appeal to the students' need for attention. The PowerPoint will contain a visual representation of concepts and terms, videos of attackers manifestos, and pertinent pictures of related people, events, and locations. Active participation from students will be encouraged throughout the presentation to increase attention spans during this lecture format.

The instructional processes research supports the pedagogy for this section, as visual stimulation in the form of PowerPoints will be incorporated to facilitate easier comprehension and retention, and to reinforce the material presented. Visual stimulation will also take the form of videos, and active shooter statistics will be depicted in graph form instead of relying on spoken statistics. Attention span is also addressed, as the lecture time is minimized and alternative teaching methods are employed in the lecture, to maximize student participation. The lecture will open with a description video to enhance attention and motivation for the duration of the lecture period. Active learning is also incorporated in the form of student participation throughout this module. Time will be allotted for student input regarding their previous observations of relative behaviors throughout the course of their schooling.

Part Two – Case Studies Using Active Learning - Time Allocated: 60 minutes (See Appendix B)

This section will present case studies of past university shootings that display a valuable representation of the material presented. This portion will create a bridge between the PowerPoint material and real-world application of this material to the students' current environment, including overt behavioral warning signs scenarios described in the literature review. Open class discussion will be promoted, and active interaction with students will be encouraged. Students will be made aware of the reality that events of this nature can happen in a university setting, specifically in a New Jersey university setting.

The instructional principle of motivation is addressed in this section as students are exposed to case studies and the possibility that incidents of this nature can occur on a college campus. The motivating factor would, therefore, be the buy-in of the students to protect his or her classmates and the college community in general. Through this motivation, attention is optimized, allowing for effective information processing of course material. Also addressed in this section is the active learning technique in the examination of relevant case studies, which allows participation from students in a class discussion specific to each case, thus enabling optimal absorption of the material. Discussions between the instructor and students will include recognition of indicators that were present prior to the attack that are derived from the case studies, and students' ability to observe these in their current environment.

The instructor will thoroughly explain these case studies to the students, highlighting behavioral indicators that were visible prior to the attacks. The instructional outcome is that students correlate the information that they received in the lecture to real-

world cases, gaining an enhanced awareness of the connection between the presentation of indicators and the committing of a violent outcome in their community.

Part Three – Group Collaboration Using Collaborative Learning - Time Allocated: 60 minutes (See Appendix C)

The class will be subdivided into smaller groups of four to promote cooperative learning instructional techniques. Within these groups, learners will be provided with profiles of students adopted from previous shooters. Students will be instructed to work collaboratively within their groups to identify viable behavioral indicators from their selected scenarios and report their findings to the rest of the class. They will be asked to determine whether they believe this person poses a danger to the public, and to describe factors that led them to their conclusion. The collaboration of efforts from small group work, with the incorporation of peer to peer instruction of their conclusions, will be utilized.

In this section, active learning is optimized through the use of the group collaboration with a focus on cooperative learning to promote student interaction. Active learning is also enhanced using a small class size, which enables the student group collaboration break out session. The jigsaw technique is also incorporated into this model, as students will present the recognized behaviors of their case study to the entire class, creating a larger picture of observed behaviors.

Part Four – Course Summary / Social Media Integration - Time Allocated: 30 minutes

Student questions and reflections will be incorporated into this section of the curriculum. Students will be allowed to pose questions to the instructors, and reflect on

behaviors they may have observed in the past. Students will be directed to the pre-established social media sites used in the course, including Facebook, blogs, and Twitter. They will be instructed on how to operate the sites, and provided time to navigate social media platforms, which will be updated with valuable information.

Social media sites can be run by an administrator at the state, who will continually update these sites with relevant information as it becomes available to ensure students have access to current material and information. New governmental and scholarly studies on this topic will be included, and emergent cases will be reviewed for correlations to the curriculum. Students will be able to pose questions to the administrators, and social media reporting processes can be established for reporting of observed behavior.

Finally, students will be directed to the location of their reactionary security plans for their college in the case an event should take place and a reactionary response is necessitated. Students will be encouraged to notify their campus security or local law enforcement immediately should observations be made that conform to the material in this curriculum.

In this module, motivation is addressed once again as students are encouraged to continue to learn through the use of social media outlets. The motivation of a safe college community is the attainable standard that can be achieved through continued learning from social media. The integration of social media as a college freshman pedagogy is integral to this module, and provides a bridge from this curriculum to further curriculum enrichment. Active learning theories are also integrated through classroom

discussion with the instructor and other students in this module, with a view to reflecting on the material presented.

# Chapter IV

# CURRICULUM DESIGN

The curriculum design is an essential element of the broader process of education and requires precise planning. This design was structured using the Stark and Luttuca model (1997) as a foundation and guide for course construction. As such, each element of the Stark and Luttuca model, excluding adjustment, will be addressed in relation to the active shooter behavioral commonalities curriculum that was developed. Adjustment will be briefly addressed, although it is not applicable until an evaluation of the current methods has been conducted.

## Purpose

The purpose of this curriculum is to foster awareness of behavioral indicators, but more importantly overt behavioral warning signs among higher education students in the State of New Jersey. Warning signs, collected from an array of current research, including from the FBI, the Secret Service, and the United States Department of Education, must be disseminated in higher educational forums to increase safety on campus. The ability to bridge the gap between the current knowledge of useful indicators defined in the research, and the dissemination of this knowledge in an effective manner to the population that would benefit most from having this information, is the critical focus of this curriculum and its driving purpose.

## Content

The embedded content of this curriculum will begin with an emotional video produced by the Sandy Hook Promise to portray this societal problem in a manner that is

relatable to the lives of college students. This is an issue that can reach any community and population, and can befall a college campus at any time. This video is meant to engage the learner and motivate them to submerse themselves into the course content. A PowerPoint presentation will then be presented to disseminate the core required information. The course will first provide visual depictions of the frequency of active shooters incidents in the United States over the last 17 years (Figure 1 and Figure 2), in addition to a visual representation of these incidents that have occurred at institutions of education, specifically higher educational facilities (Figure 3). These depictions reinforce that events of this nature are increasing, and are a reality for higher education institutions, as they have left an imprint on colleges and universities.

Slides will then focus primarily on the identified behavioral indicators found from previous research. Described in the PowerPoint is a prevention mindset in which the recognition of signs and behaviors can lead to the intervention of an active shooter incident before its onset. Supporting statistics will be presented that confirm violence indicators have been reported in 93% of prior active shooter cases, and in 81% of cases at least one person was aware of the incident prior to the first shot (Vossekuil et al., 2004). Reasons for educating the chosen population in this material, college students, will be supported drawing on the Williams et al. (2015) study, which stated that at-risk persons' friends were the most likely to recognize behavioral indicators, as well as the research of Vossekuil et al. (2002), which indicated that 93% of persons that had knowledge of the attack prior were among the attacker's peer base.

Warning indicators and behaviors, as revealed in the extensive research discussed above, will be presented in this lecture. The New Jersey Department of Health's (2018)

three categories of indicators, including personal precipitants, traditional risk indicators, and late-stage indicators will be addressed, and the Sandy Hook Promise (2018) indicators will be presented. Three subcategories of specific themes will be expanded on in this section, including 1) mental illness, 2) psychosocial characteristics, and 3) overt warning behaviors. Slides will be dedicated to these categories, and class discussion will be encouraged. Subsequent slides be dedicated to probing, testing and cocooning (Blue, 2018). Governmental entity study findings sourced from the Federal Bureau of Investigation, United States Secret Service, and the United States Department of Education regarding behavioral indicators will also be included.

Case studies of examples of overt warning behaviors will be discussed with the class, and students will work in collaborative, active learning groups to conduct assessments derived from real active shooter cases. The selected case studies and assessment scenarios used in this curriculum were chosen from incidents in the United States that occurred at higher education institutions. This applicability to the learner's current environment provides an enhancement of learner motivation regarding the development of assaults of this nature specific to a college campus. The selected cases, which garnered national attention and are potentially recognizable to students, overtly display observable behavioral warning indicators discussed in the lecture portion of the curriculum, and clearly provide a link between course lecture theory and real-world scenarios at universities.

Finally, social media integration will be addressed and utilized for continued learning. Social media sites will house updated information for students as this field of study progresses. Students will only be exposed to this curriculum once in their college

career, and this emerging discipline continues to grow as further research is conducted and new case studies are examined. Social media will conveniently be updated for students, and therefore their familiarization with these sites during this curriculum is critical for continued learning on this topic. Sites containing valuable information in this field will displayed for the students and visually illustrated on a screen in the classroom.

## Sequence

The population subjected to the course material will be full-time incoming college freshman or new transfers to a four-year institution of higher education in the State of New Jersey. As a result, the most effective way to disseminate this course material is to embed the curriculum in a college freshman orientation or a new student orientation to a college or university in New Jersey. This course would serve as a prerequisite to enrollment prior to registration for classes, ensuring the full curriculum is delivered to incoming students without exception. It is essential to find a slot within the freshman orientation schedule to incorporate this curriculum.

Time constraints within the tight schedules of current orientation structures are understandable, and may limit the overall time that can be allocated for this curriculum. The amount of crucial institutional knowledge that must be conveyed to new students is significant, and current orientation schedule structures currently forbid the addition of four-hour supplemental modules.

Current one-day models of orientation preclude the addition of a four-hour module within the existing structure, as most orientations are limited to six hours or less. Therefore, for one-day orientation schedules, it is recommended that an additional four-

hour block is added to the orientation schedule, as time must be allocated for this crucial topic, and course structure cannot be reduced. This can take the form of a supplemental morning or afternoon block of instruction, extending the orientation to one and a half days. Students would be afforded the choice of a supplemental 'a.m' or 'p.m' session for the curriculum, in addition to the current one-day orientation schedule.

If university administrative choose, institutions could supplement the active shooter curriculum with additional Title IX, VAWA, or other safety awareness blocks not currently offered. Because the active shooter curriculum is restricted to four hours, remaining hours could allow for the expansion of these courses beyond what is currently taught, creating a day solely dedicated to promoting the safety of students at the university. Support for this program from multiple stakeholders, including students' parents, community leaders, law enforcement, and all advocates of safer higher institutional environments, would be established.

In regards to institutions that implement a two-day orientation, the active shooter module can supplement the second day of orientation. Many of these current formats offer free time or allow for additional social experiences. Furthermore, the second day of orientation is often not a full day, thus allowing for supplemental courses of instruction.

Resistance to this additional course curriculum embedded within the current orientation format is expected. A directive mandating the implementation of this training by the New Jersey Attorney General would assist in the incorporation of this curriculum and ensure the exposure of this critical material to college students in New Jersey. Previous directives on this topic, as in New Jersey Attorney General Directive 2016-7, issued in March of 2018, which mandates the reporting of any information indicative of

violence in a school setting in New Jersey, have set a precedent on the position of safety at the highest levels of government. This curriculum would in fact enhance the effectiveness and compliment Attorney General Directive 2016-7, as students would now be familiar with the risk factors that should be reported.

Another option that could provided to institutions is presenting a brief overview and introduction of the course curriculum at college orientation, with the remainder of the course contained within the freshman students' core curriculum, within their first semester of college. The remaining active shooter curriculum could then be integrated within the students' core required courses, such as a College Life Course, completed within their first semester of study. This method would alleviate time constraints at college orientation, while fulfilling the curriculum requirements.

The material presented will be organized in structure so as to highlight the research themes, as various methods of recognition will be discussed and built upon as the course progresses. Themes include theories concerning overt warning behaviors, mental illness, and psychosocial characteristics.

Students will be exposed in the first section, to the information in the lecture portions and taught the terms, definitions, and meanings of the material. In the second module, case studies of previous incidents will build upon this material and draw a bridge between the presented material and its applicability in the real world, particularly on college campuses. Part three will allow the learner to use this material in the examination of presented scenarios in which the student can assess an individual that may be exhibiting risk factors. By this portion of the course, students are incorporating what they have learned and actively presenting the knowledge in group structures with their peers.

## Learners

The target audience will be freshman and transfer students of institutions of higher education in New Jersey. Inherent in this audience is the capability to understand the course content if it is presented in a palatable manner. This task will be accomplished through the strategic use of active learning, with class participation and discussion, as well as collaborative learning involving small group work. These instructional processes will engage the learner and inhibit loss of attention in comparison to a strict lecture format.

The needs, goals, and objectives of the curriculum align with the complex and challenging environment that we live in today in regards to violent acts, specifically active shooters on college campuses. The intended outcome of this curriculum is to provide accurate and timely information dissemination regarding behavioral indicators of active shooters to the learners, college students. Meeting this objective, the needs of the students and the college community as a whole are fulfilled, as this information can potentially ensure their safety and the safety of their classmates.

The learner's demographics will also be taken into account, and accessibility and assistance will be provided to students with disabilities. Due to the multitude of races and ethnicities participating in this curriculum across the State of New Jersey, all efforts will be made to ensure sensitivity when discussing emotional and sensitive material.

## Instructional Processes

The instructional activities will incorporate a hybrid of lecture and active learning techniques. Small group work will be implemented, enhancing the collaborative learning

process. Classroom discussion and participation will be solicited from the students during each module. Videos and PowerPoints will be used to encourage visual comprehension, and instructional strategies will incorporate the students' paradigms of the problem and current knowledge base, allowing for an expansion of knowledge through motivation to learn.

Integral to the course is that each module builds on the previous module, enhancing the information processing theory. The theory and relevant content are first disseminated in module one with active learning and visual learning at the forefront of the instructional process. Real-world applicability specific to the higher education environment is introduced in the second module, increasing student attention through the motivation of creating a safer college community as the end result of the curriculum. Each presented case relates to higher education environments, demonstrating to the learner population that higher education is not immune to attacks of this nature. Assessments in module three require students' interactions in collaborative active learning environments and further information processing theory, as students use the lecture material and apply it in small groups. Social media integration in the final module provides a platform for continued learning upon conclusion of the course.

## Instructional Resources

Instructors from each respective higher education institution will be sent to a one-day "train the trainer" course faciliated by a representative from the state and federal law enforcement community who is a subject matter expert in the field of behavioral indicators of active shooters. In this trainer course, all curriculum material will be carefully explained, and suggested modes of delivery will be discussed. All PowerPoints

and course material will be provided to the instructors from each institution to ensure standardization of delivery throughout all institutions in the state.

The classroom setting should comfortably fit 40 students without being too spacious. Larger classrooms will be avoided as they can inhibit learning by projecting space between the instructor and student, dissuading quality active learning techniques. Chairs will be arranged in groups of four for small group interactions to facilitate the active learning portions of the educational module. The overall atmosphere that should be achieved is a close-knit, college community setting and feeling.

This classroom setting will need to be equipped with a computer and projection screen able to run PowerPoint instruction videos and social media sites. The projection screen must be large enough to be viewed by the entire classroom. Speakers for audible portions of the PowerPoint will also be needed. Laminated handouts summarizing important information relating to the class are required, as each student will be provided with case studies in collaborative group work.

## Evaluation

According to Stark and Lutucca (1997), evaluation design should be incorporated into the creation of the course curriculum before the course is implemented. Systematic adjustments, based on the periodic evaluations, will ensure the curriculum continues to adhere to the course objectives.

The evaluation would take the form of a process evaluation after the first year of course instruction, in order to recommend changes or updates to the program. A process evaluation will ensure adherence to the original objectives and mission of the curriculum

(Walker, 2018). One valuable examination will be centric to the deliery of the course, which will reveal whether the course gas complied with the intended four-hour structure, and whether all of the modules were provided to the students. It will also be essential to determine whether all schools remained standardized in their delivery, and whether the selected population was exposed to the material in the same manner. This can be accomplished through a mandated after-action report from each school summarizing the aforementioned data.

Quality of the course instruction should be reviewed to ensure standards are upheld throughout the delivery, and that instructors are able to communicate their messages effectively. This evaluation can be accomplished through student surveys upon completion of the curriculum to solicit an honest critique of the delivery overall, and random in-person assessments of the curriculum from the college administration and as state representatives. Students will also be provided an opportunity to provide an open-ended reflective piece. This reflective assessment will allow learners to convey their pros and cons, and contribute a personal review of the course in their own words. The students' assessment can be captured during the summary module of the course.

Institutional instructors of this curriculum will also be surveyed after the completion of the first year of instruction to collect qualitative feedback on the effectiveness of the proposed pedagogies for the course. These include the hybrid lecture style and active learning techniques. Changes to teaching styles or methods can be implemented if suggested changes are frequently included in survey responses.

All of the incoming data will be interpreted by a designated state representative to provide guidance on potential changes to the curriculum, and to ensure the curriculum is

delivered with consistent quality on a statewide level. Recommendations for change will be implemented at the state level, and disseminated to the institutions upon completion. New case studies and updated PowerPoints can be inserted as more relevant and current scenarios occur.

Although overall effectiveness will be hard to quantify, as the program's success will be indicated by mitigation of an event before its onset, reporting of observed indicators by the students to the law enforcement community can also be captured and analyzed. After implementing a program of this nature, William Rainey Harper College in Ilinois observed a noticeable increase in referrals to their campus security community each year (Bennet & Bates, 2015). Institutions of higher education can be directed to record notifications of behavioral indicators from students who have taken this course to their respective campus police or security. Therefore, our short term goal is a rise in reporting of observable behavioral indicators, while our long term goal is a change in culture regarding the proactive prevention of active shooter cases through recognition of indicators.

## Course Curriculum Outline

### Course Description

This course outline provides an overview of the proactive behavioral recognition curriculum as it relates to an active shooter scenario on a college campus in the State of New Jersey. Students will be provided with relevant and relatable research findings as well as historical case studies of college campus attacks and the individuals that commit these attacks. Strategies for prevention of future attacks, as practiced through student

assessment in small groups, will be provided to students in a collaborative classroom environment.

## Course Objectives and Learning Outcomes

At the end of this course the participants should be able to :

- Recognize behavioral indicators present in individuals that may potentially be indicative of future perpetration of an active shooter scenario on a college campus or university, as observed through commonalities identified in historical reviews.
- Describe identifiable behavioral indicators and the eight overt warning behaviors of an active shooter, and comprehend their location on the spectrum of violence predictors.
- Possess knowledge of additional resources (e.g., online sources and social media websites) for further study and current behavioral indicator information.

Students will meet the above objectives through a combination of the following activities in this course:

- Understanding of presented lecture material in an interactive learning environment
- Exposure to historical case studies of previous active shooter cases
- Participation in collaborative classroom discussion and small group interactive assignments incorporating active learning techniques

## Prerequisites to the Course

There are no prerequisites to this course as it will be provided and mandated to incoming freshman and transfers to a higher education institution in the State of New Jersey.

## Required Text

There is one required reading that students must complete prior to the commencement of the course.

- "A Study of Pre-Attack Behaviors of Active Shooters in the United States Between 2000 and 2013" (Silver, Simons, & Craun, 2018). - Federal Bureau of Investigation Publication

## Materials

- Lecture material

  PowerPoint visuals #1-30 for module #1 (see Appendix A)

- Case studies

  PowerPoint visuals #31-43 (see Appendix B)

- Case study assessments #1-3

  Student handouts for module #3 – (See Appendix C)

Table 3.
Module 1-4 of the Active Shooter Behavioral Recognition Curriculum

| **MODULE** | **OBJECTIVES** | **REFERENCES** |
|---|---|---|
| Module One<br><br>*Lecture of presented material*<br><br>Time assigned – 90 minutes | • Introduction of information to be presented and reasonings for presentation<br>• Course overview and objectives defined<br>• Lecture and collaborative interaction on familiarization of warning behaviors | • Prepared PowerPoint (slides 1-30)<br><br>• Sandy Hook Video<br>• Cho manifesto Video<br>• Elliot Rodgers Video<br><br>(See Appendix A) |

| | | |
|---|---|---|
| Module Two<br><br>*Case Studies*<br><br>Time assigned – 60 minutes | • Presentation of historical case studies of past shootings on college campuses<br>• Present cases in which national attention was garnered and describe warning indicators and overt behaviors presented by the shooter before the event<br>• *What are the commonalities of these cases?* | • Prepared PowerPoint (slides 31-43)<br><br>• The University of Texas in Austin – Whitman<br>• Virginia Tech – Cho<br>• University of Alabama – Dr. Amy Bishop<br>• University of California at Santa Barbara – Elliot Rodgers<br><br>(See Appendix B) |
| Module Three<br><br>*Group Collaboration*<br><br>Time assigned – 60 minutes | • Students will be divided into collaborative learning groups of four and provided with assessments of student's behavior<br>• Students should be able to identify previously discussed indicators and behaviors and describe the differences between the two<br>• Assessments of behavior will be conducted | • Using handouts for each group students will describe behaviors of a shooter before the shooting in their specific group scenario<br><br>- Scenario #1<br>Florida State University<br>- Scenario #2<br>Northern Illinois University<br>- Scenario #3<br>Umpqua Community College<br><br>(See Appendix C) |
| Module Four<br><br>*Summary and Online/ Social Media Resources*<br><br>Time assigned – 30 minutes | • Summary of presented material and questions of students<br>• For further knowledge material supplementation discussion and social media integration summary | • Current website and social media outlets displayed to students on a projector<br>• Student open-ended assessment piece completed |

# Chapter V

# CONCLUSION

The field of behavioral indicator recognition in active shooters is a contemporary body of research with continued investigation and analysis conducted as new cases unfortunately continue to occur. As a result, this course curriculum would quickly become outdated without continued attention to the emerging field of study on this topic. It is therefore imperative for course instructors, creators, and administrators to continually update course material, while evaluating and adjusting the current course curriculum to accurately reflect the most contemporary research. Additions, deletions, and changes should be made to the theory on a regular basis, in order to garner optimal motivation for the learner population and provide essential life-saving material accurately.

Investigations of active shooter incidents can take years to complete, but often yield valuable information concerning the shooter's mindset and actions prior to the event. By assessing these investigations as they become available to the public, relevant and updated case studies can be added to the curriculum. The case studies currently included in the curriculum may become outdated over time as they no longer garner national attention, and new cases may become relevant to the higher education community. Contemporary events may provide impactful scenarios that resonate with modern college students in their environments, which may be used to increase their attention and motivation to engage in the learning process, and should therefore replace the case studies currently included in this curriculum.

Equally important are contemporary teaching strategies that have been found to be useful for college students, and this field of research should also be monitored for advancements. Instructors can advise course administrators and creators on ideas regarding implementation strategies that may be included in instructional processes that have been shown to be effective with the target audience. New pedagogies that will enhance the learning process and the information processing approach for this material could supplement the current instructional processes for the course, optimizing absorption and retainment in the learner population. Contemporary content selection and effective content dispersion should continue to complement each other in the course design, and it is the responsibility of curriculum administrators and creators to ensure this task is carried out effectively, by implementing incremental enhancements to the curriculum.

Future curriculum development in this field will supplement course creation, further enhancing safety at institutions of higher education. Alternative curriculum tailored to an audience of professors, college administration, and other university staff could further extend the community of persons able to recognize behavioral indicators of potential active shooters on campus, providing another layer of security for the higher education environment. Through continued education on this topic and further exposure to behavioral indicators of active shooters, a new proactive paradigm of responsibility for safety on campus will emerge, providing safer backdrops for learning experiences on college campuses for students and educators.

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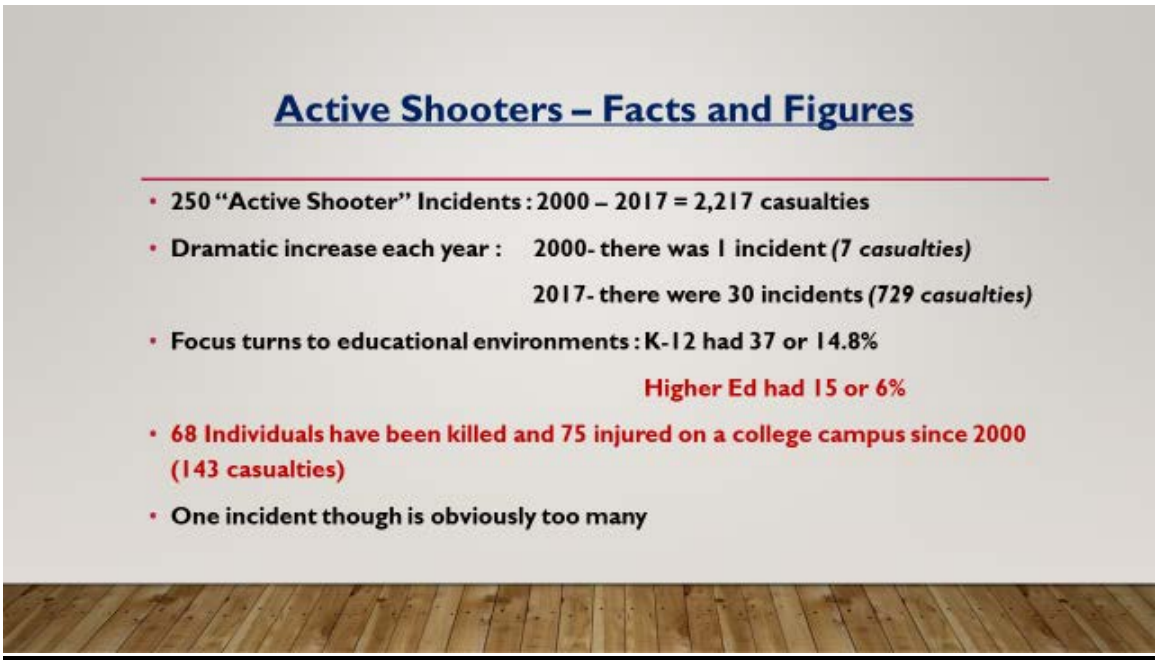
# Appendix A

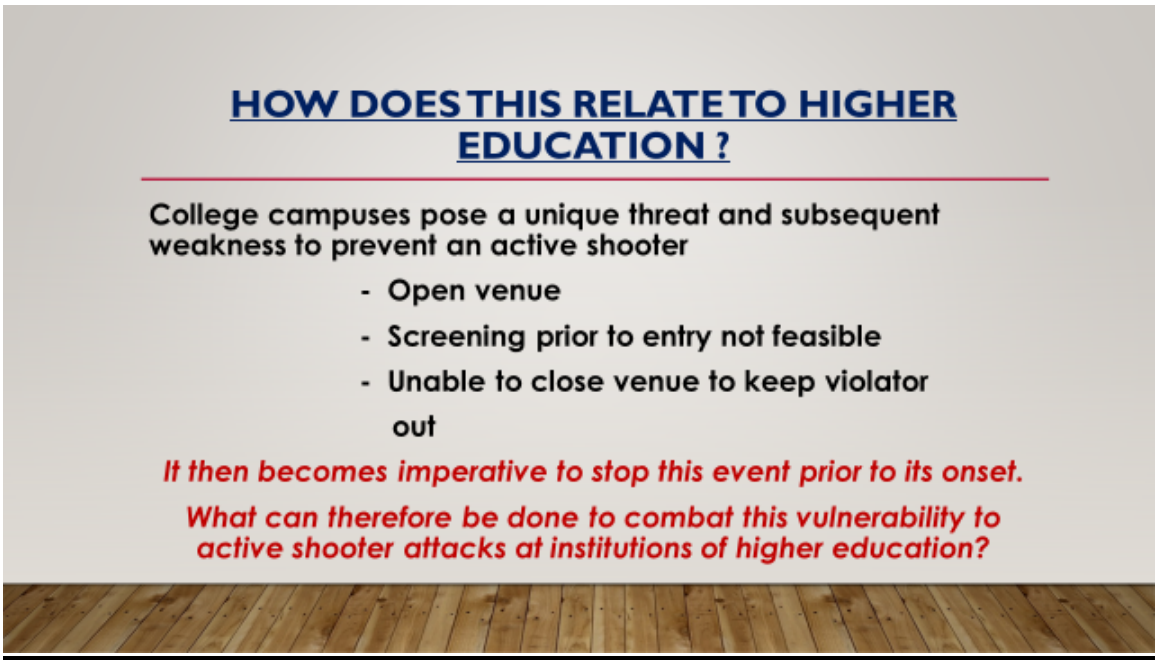
PowerPoint of Curriculum for Module #1

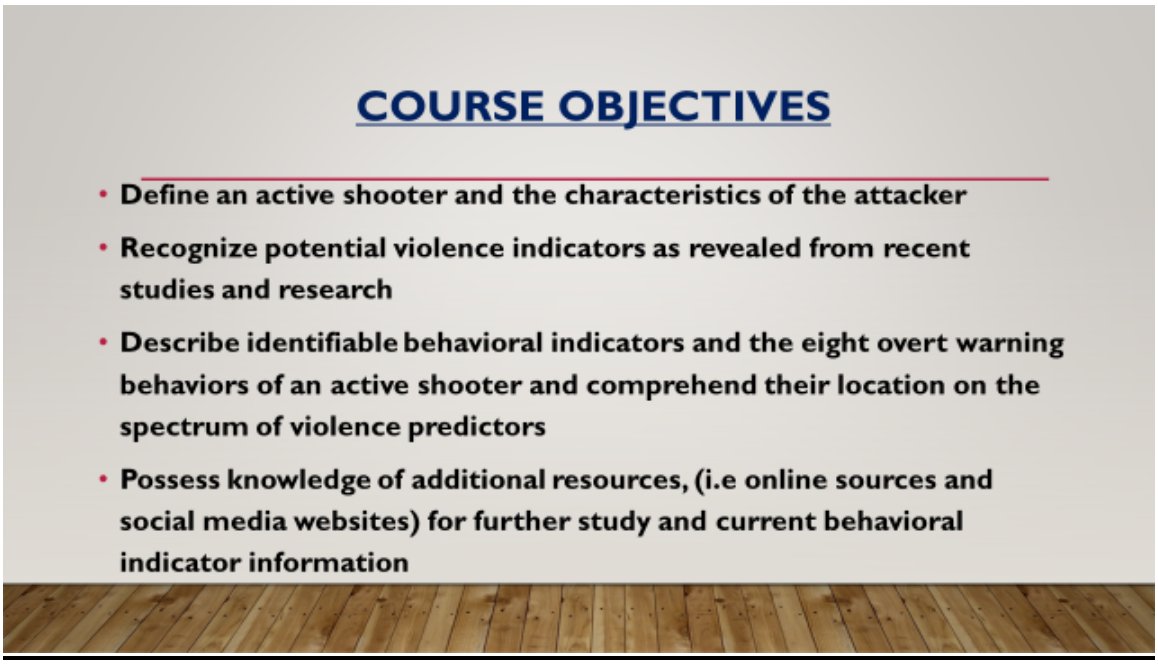
PowerPoint #1-30

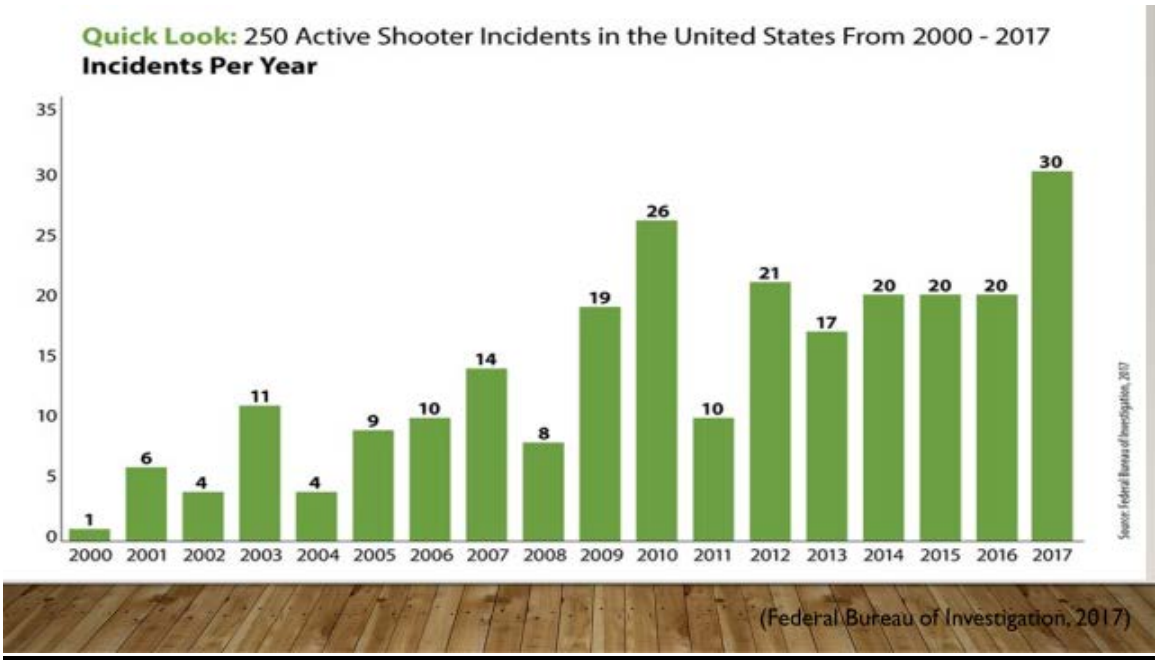
BEHAVIORAL INDICATORS
OF ACTIVE SHOOTERS
RECOGNITION TRAINING FOR INSTITUTIONS OF
HIGHER EDUCATION IN THE STATE OF NEW JERSEY

SANDY HOOK PROMISE
abc NEWS
(Sandy Hook Promise, 2016)

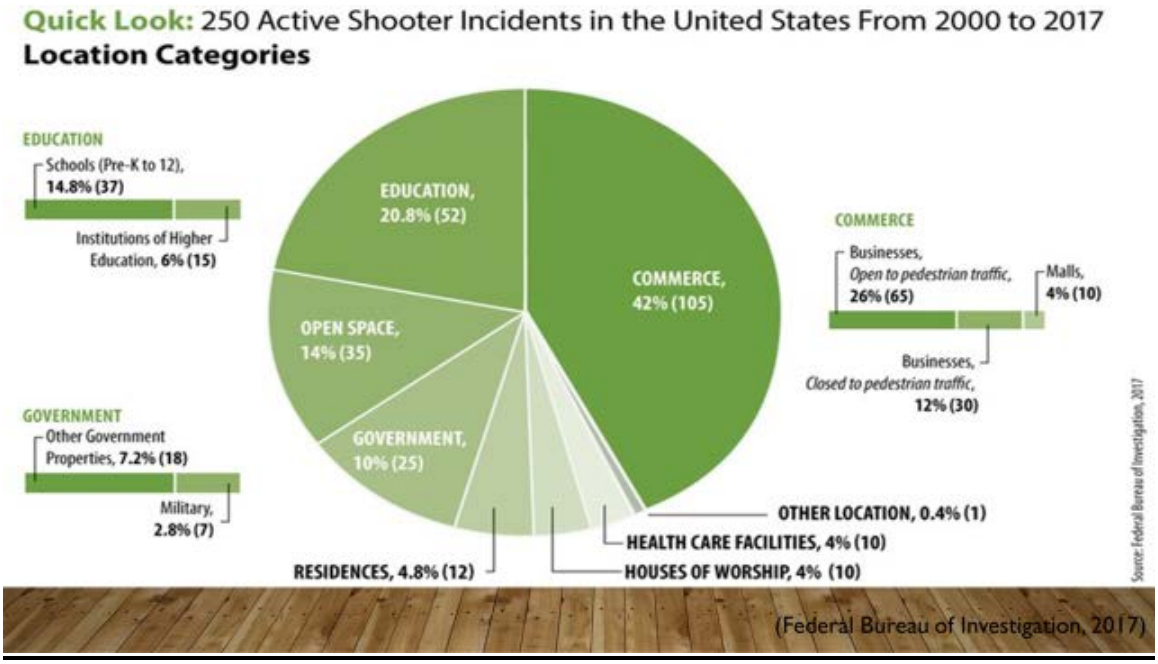

Active Shooters – Facts and Figures
• 250 "Active Shooter" Incidents : 2000 – 2017 = 2,217 casualties
• Dramatic increase each year : 2000- there was 1 incident (7 casualties)
2017- there were 30 incidents (729 casualties)
• Focus turns to educational environments : K-12 had 37 or 14.8%
Higher Ed had 15 or 6%
• 68 Individuals have been killed and 75 injured on a college campus since 2000 (143 casualties)
• One incident though is obviously too many


HOW DOES THIS RELATE TO HIGHER EDUCATION ?
College campuses pose a unique threat and subsequent weakness to prevent an active shooter
- Open venue
- Screening prior to entry not feasible
- Unable to close venue to keep violator out
It then becomes imperative to stop this event prior to its onset.
What can therefore be done to combat this vulnerability to active shooter attacks at institutions of higher education?


COURSE OBJECTIVES
Define an active shooter and the characteristics of the attacker
Recognize potential violence indicators as revealed from recent studies and research
Describe identifiable behavioral indicators and the eight overt warning behaviors of an active shooter and comprehend their location on the spectrum of violence predictors
Possess knowledge of additional resources, (i.e online sources and social media websites) for further study and current behavioral indicator information




(Federal Bureau of Investigation, 2017)

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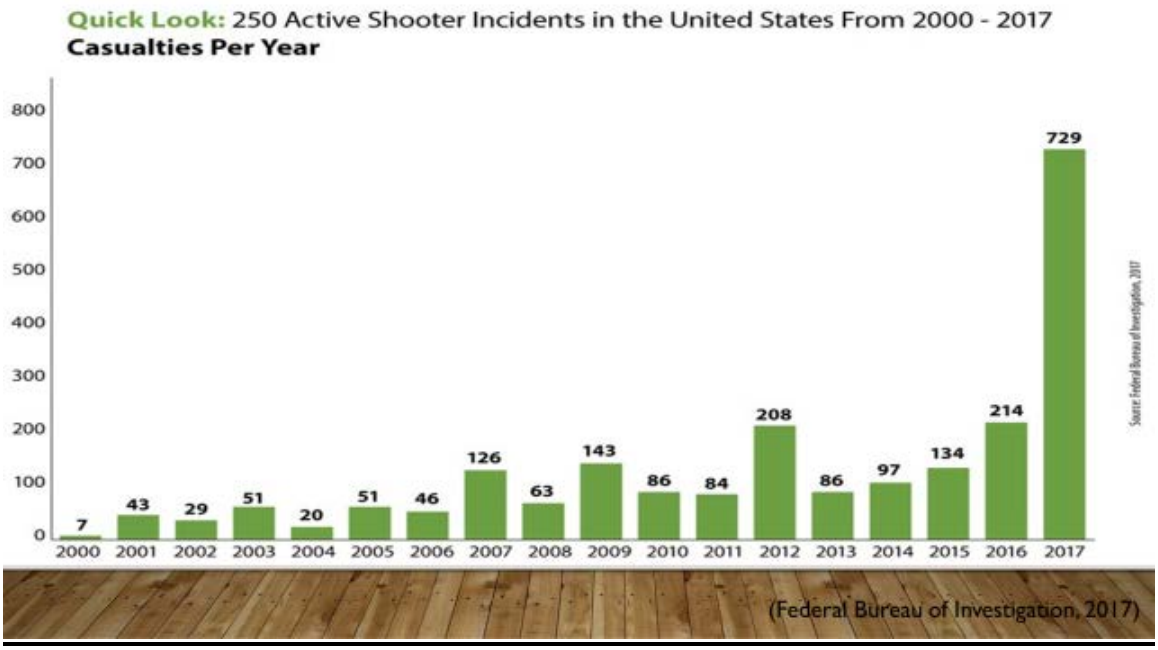
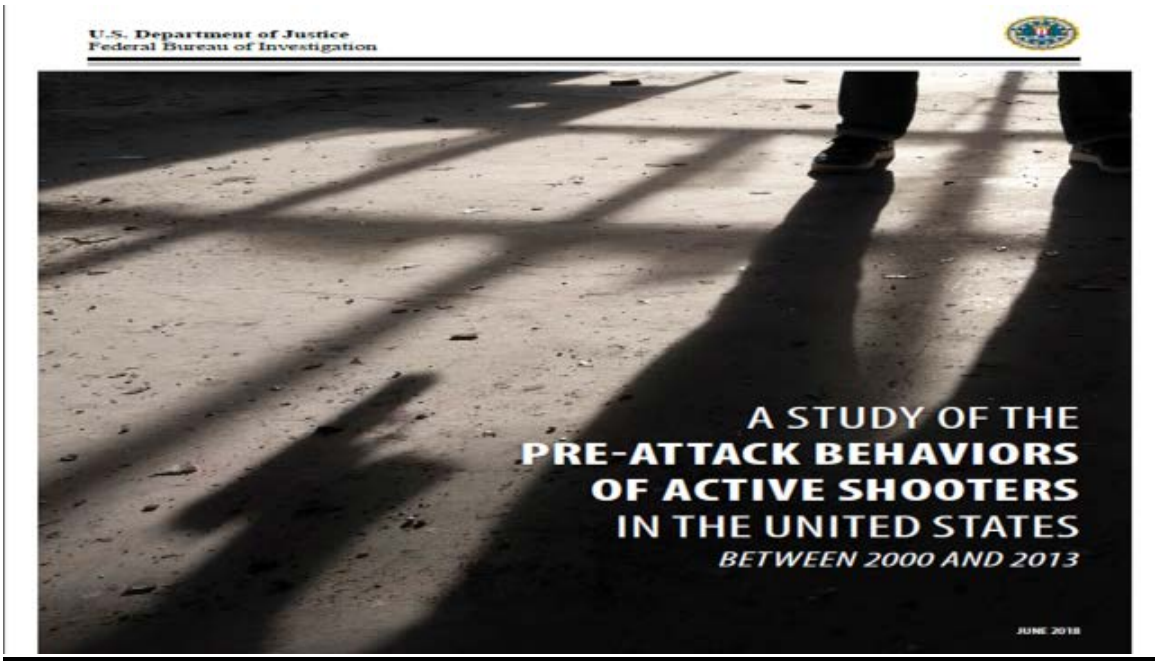
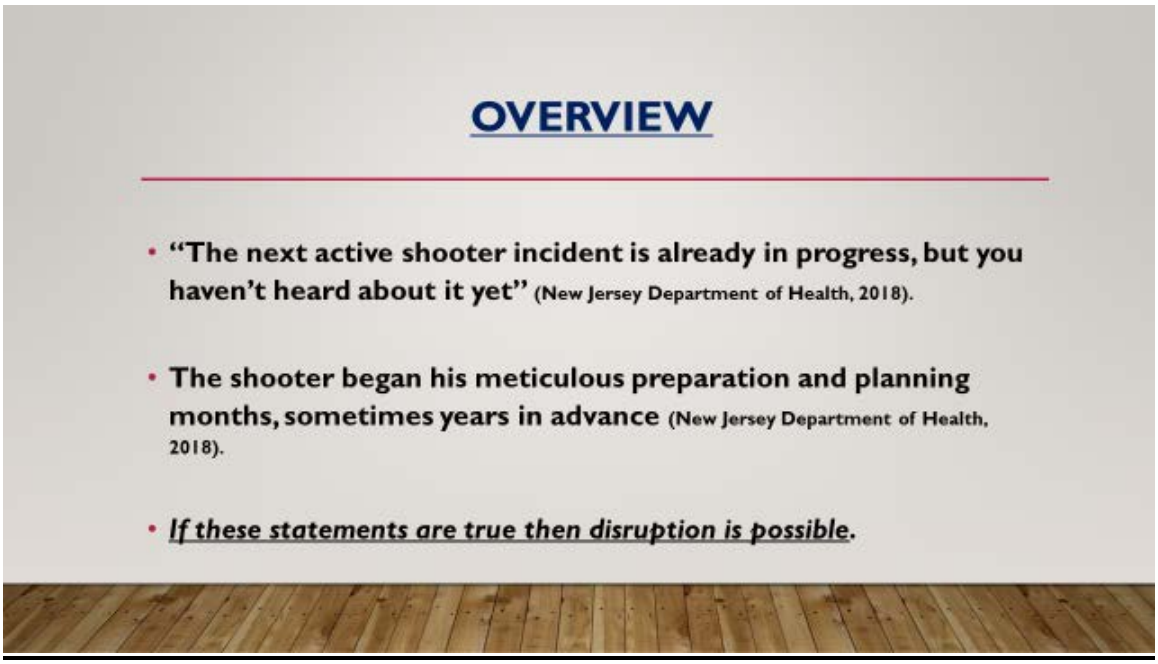
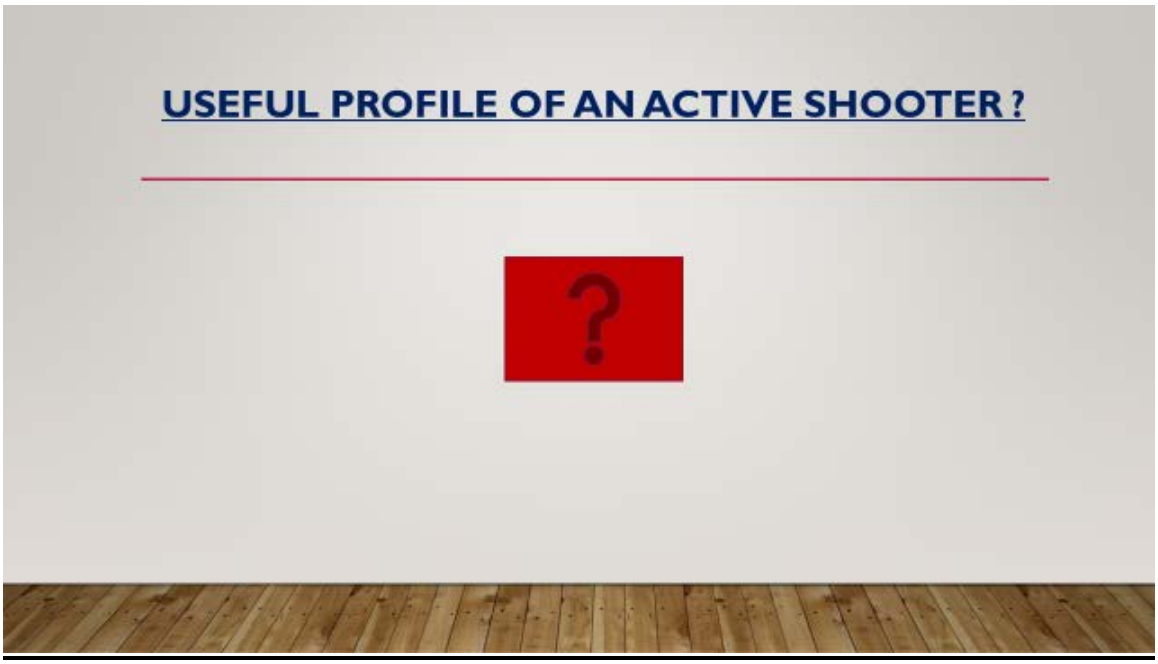
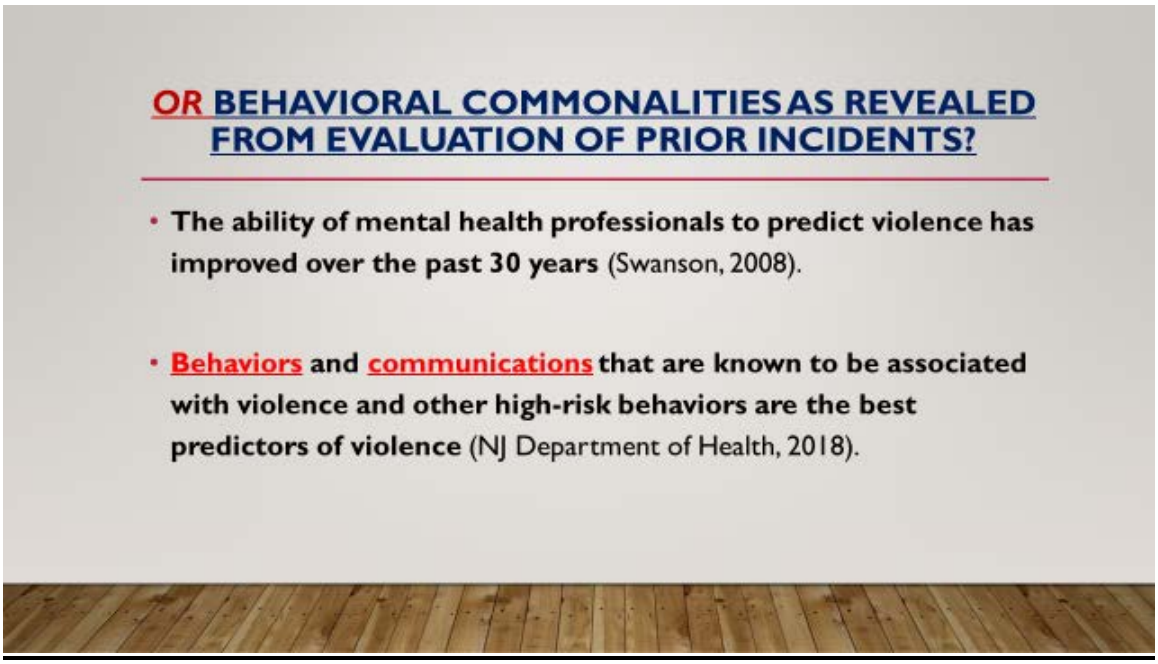

Quick Look: 250 Active Shooter Incidents in the United States From 2000 - 2017
Casualties Per Year
800
700
600
500
400
300
200
100
0
7
43
29
51
20
51
46
126
63
143
86
84
208
86
97
134
214
729
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
Source: Federal Bureau of Investigation, 2017
(Federal Bureau of Investigation, 2017)

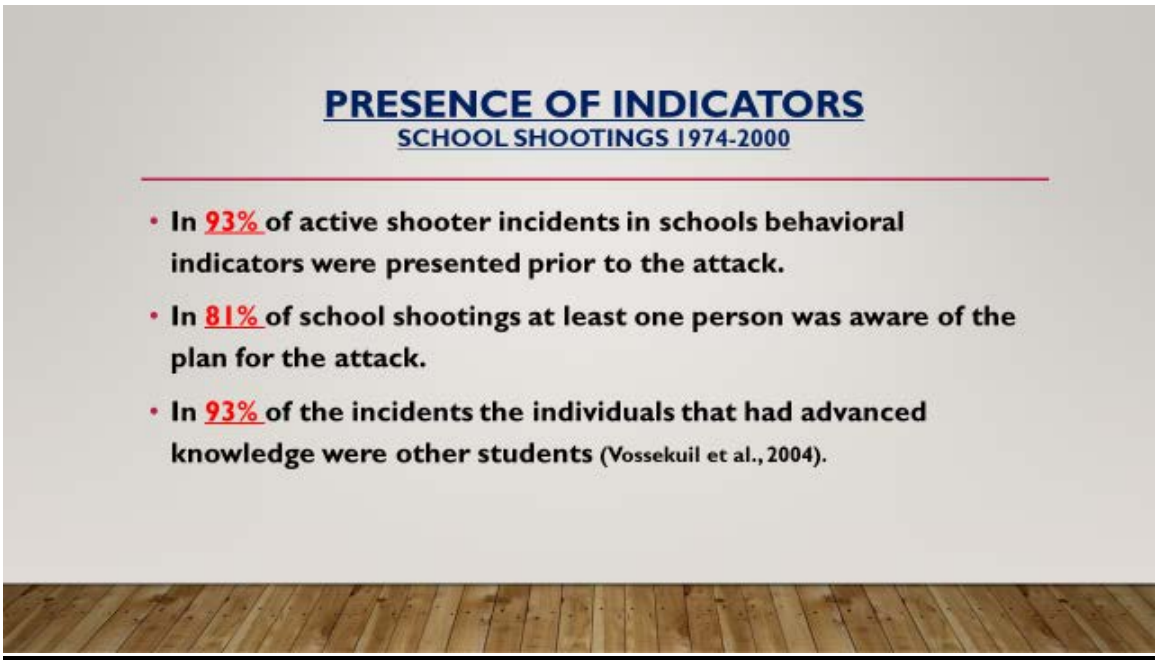


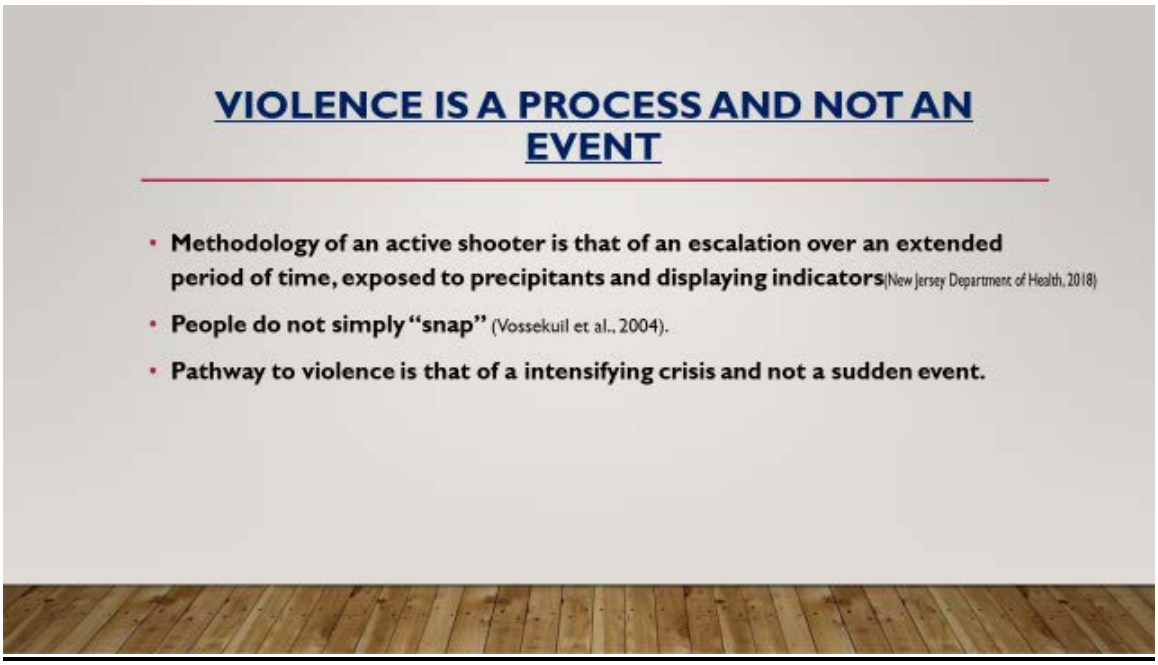

Blair J. & Scchweir, K. 2013

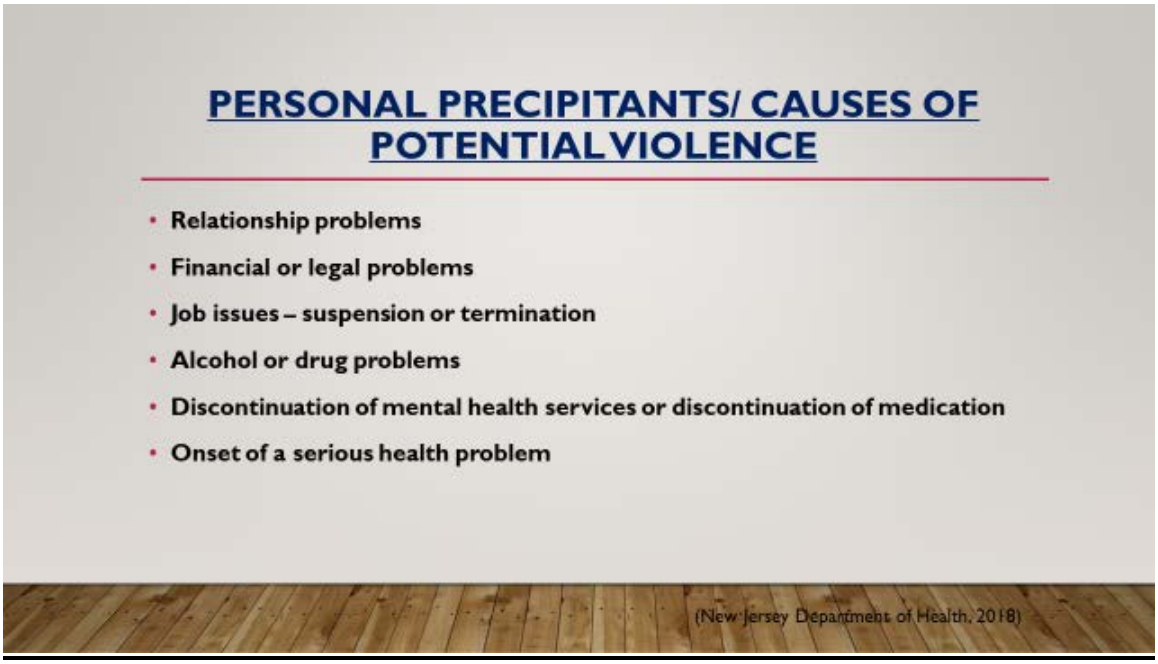

OVERVIEW
• "The next active shooter incident is already in progress, but you haven't heard about it yet" (New Jersey Department of Health, 2018).
• The shooter began his meticulous preparation and planning months, sometimes years in advance (New Jersey Department of Health, 2018).
• If these statements are true then disruption is possible.


USEFUL PROFILE OF AN ACTIVE SHOOTER ?
?


OR BEHAVIORAL COMMONALITIES AS REVEALED FROM EVALUATION OF PRIOR INCIDENTS?
• The ability of mental health professionals to predict violence has improved over the past 30 years (Swanson, 2008).
• Behaviors and communications that are known to be associated with violence and other high-risk behaviors are the best predictors of violence (NJ Department of Health, 2018).


PRESENCE OF INDICATORS
SCHOOL SHOOTINGS 1974-2000
• In 93% of active shooter incidents in schools behavioral indicators were presented prior to the attack.
• In 81% of school shootings at least one person was aware of the plan for the attack.
• In 93% of the incidents the individuals that had advanced knowledge were other students (Vossekuil et al., 2004).


VIOLENCE IS A PROCESS AND NOT AN EVENT
Methodology of an active shooter is that of an escalation over an extended period of time, exposed to precipitants and displaying indicators (New Jersey Department of Health, 2018)
People do not simply "snap" (Vossekuil et al., 2004).
Pathway to violence is that of a intensifying crisis and not a sudden event.


PERSONAL PRECIPITANTS/ CAUSES OF POTENTIAL VIOLENCE
• Relationship problems
• Financial or legal problems
• Job issues – suspension or termination
• Alcohol or drug problems
• Discontinuation of mental health services or discontinuation of medication
• Onset of a serious health problem
(New Jersey Department of Health, 2018)

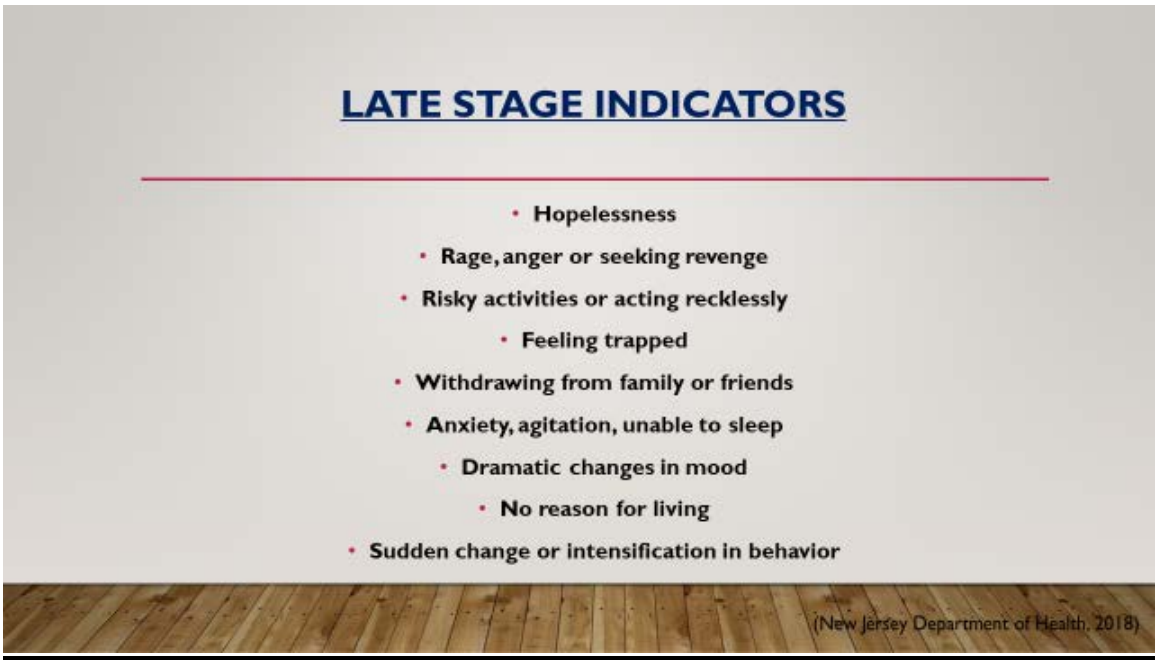
TRADITIONAL RISK FACTORS OF VIOLENCE
Depression / withdrawal
Appearance and hygiene
Policy violations
Severe mood swings
Unstable, emotional responses
Empathy with individuals that commit violence
Previous incidents of violence
Unsolicited comments about firearms
Absenteeism
Severe mood swings
Explosive outbursts of rage or anger
Domestic problems into the workplace
(New Jersey Department of Health, 2018)

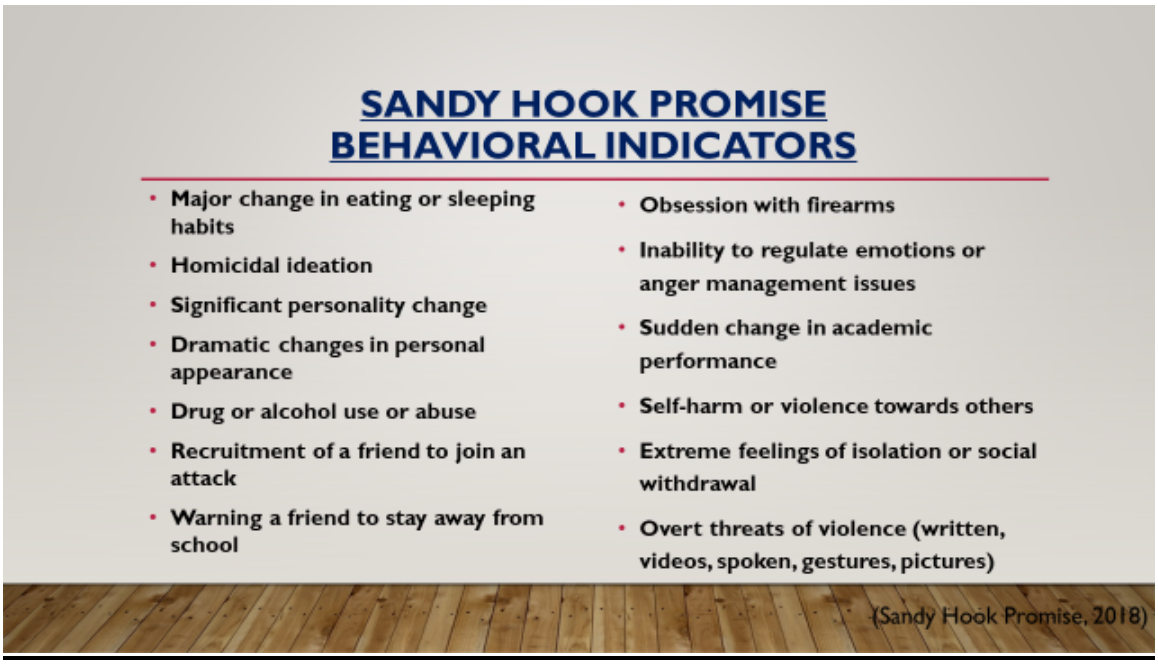
# TRADITIONAL STRESSORS
# FBI BEHAVIORAL ANALYSIS UNIT

TABLE 1: STRESSORS

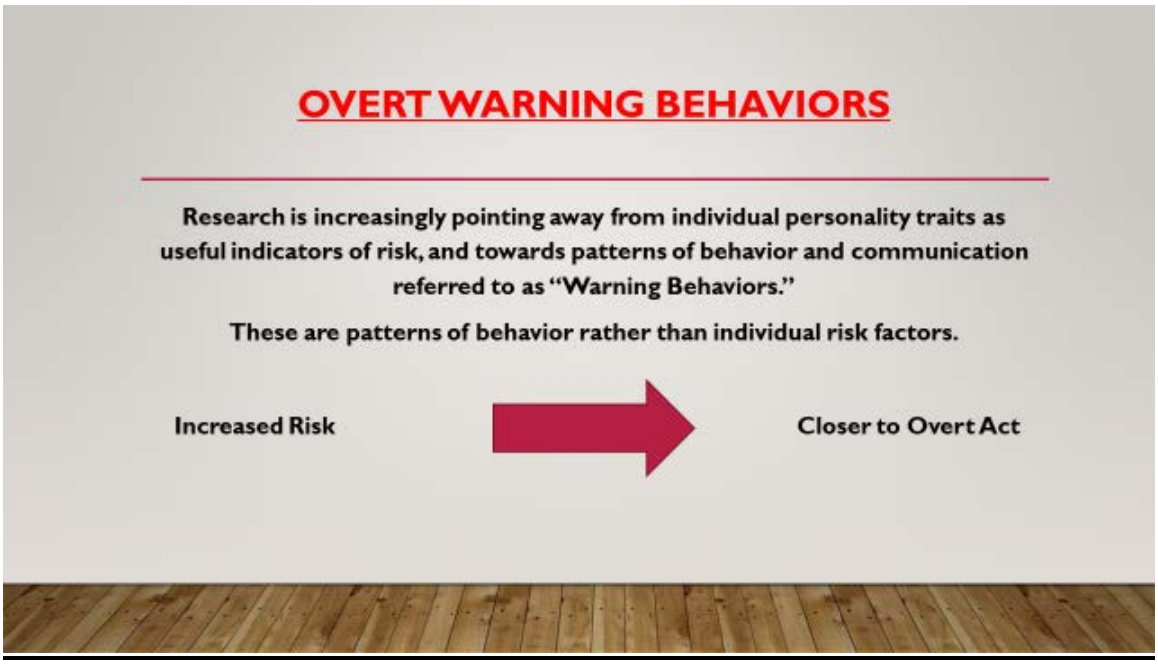
| Stressors | Number | % |
|---|---|---|
| Mental health | 39 | 62 |
| Financial strain | 31 | 49 |
| Job related | 22 | 35 |
| Conflicts with friends/peers | 18 | 29 |
| Marital problems | 17 | 27 |
| Abuse of illicit drugs/alcohol | 14 | 22 |
| Other (e.g. caregiving responsibilities) | 14 | 22 |
| Conflict at school | 14 | 22 |
| Physical injury | 13 | 21 |
| Conflict with parents | 11 | 18 |
| Conflict with other family members | 10 | 16 |
| Sexual stress/frustration | 8 | 13 |
| Criminal problems | 7 | 11 |
| Civil problems | 6 | 10 |
| Death of friend/relative | 4 | 6 |
| None | 1 | 2 |

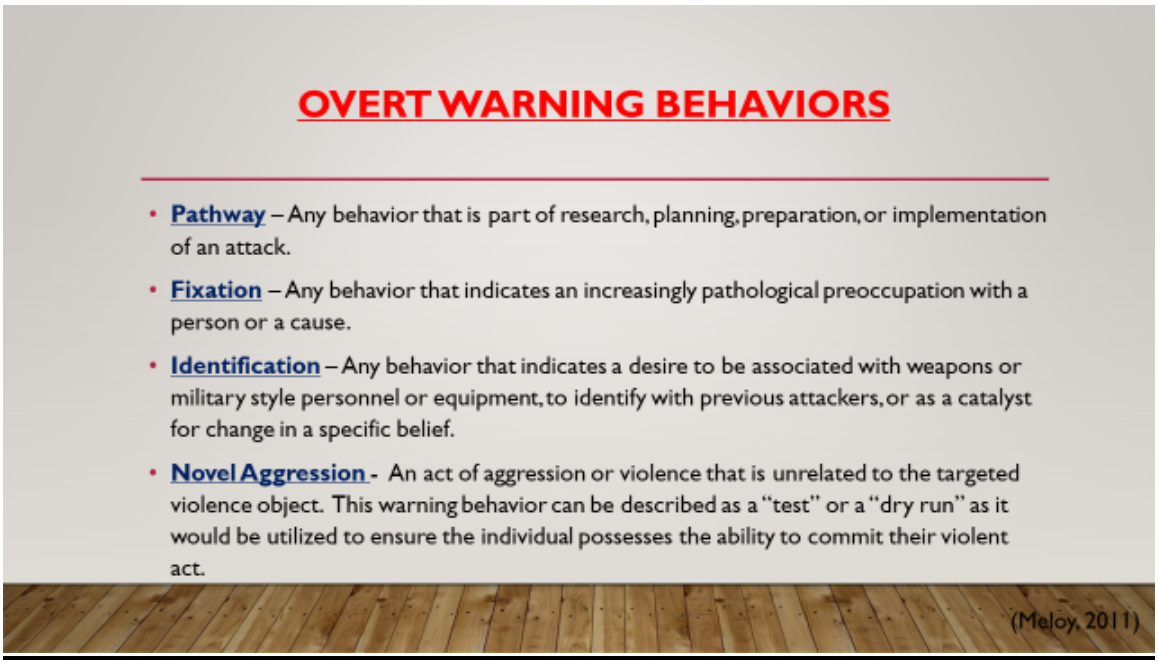
An average of 3.6 stressors were displayed less than one year prior to the attack (Silver et al., 2018)

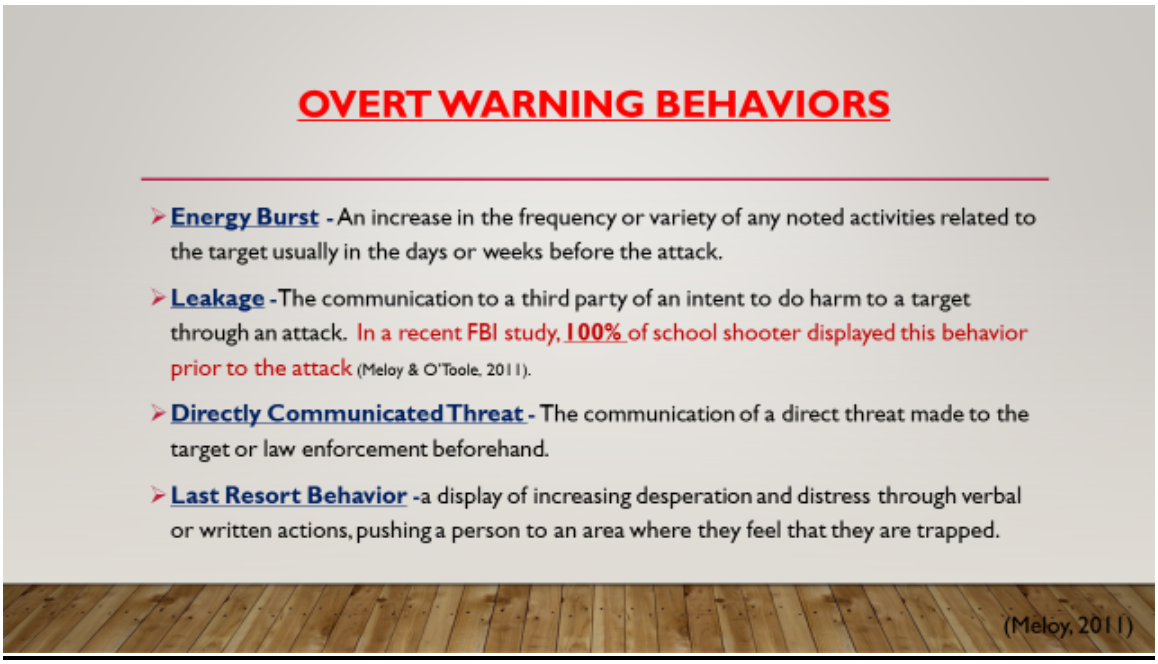

LATE STAGE INDICATORS
• Hopelessness
• Rage, anger or seeking revenge
• Risky activities or acting recklessly
• Feeling trapped
• Withdrawing from family or friends
• Anxiety, agitation, unable to sleep
• Dramatic changes in mood
• No reason for living
• Sudden change or intensification in behavior
(New Jersey Department of Health, 2018)

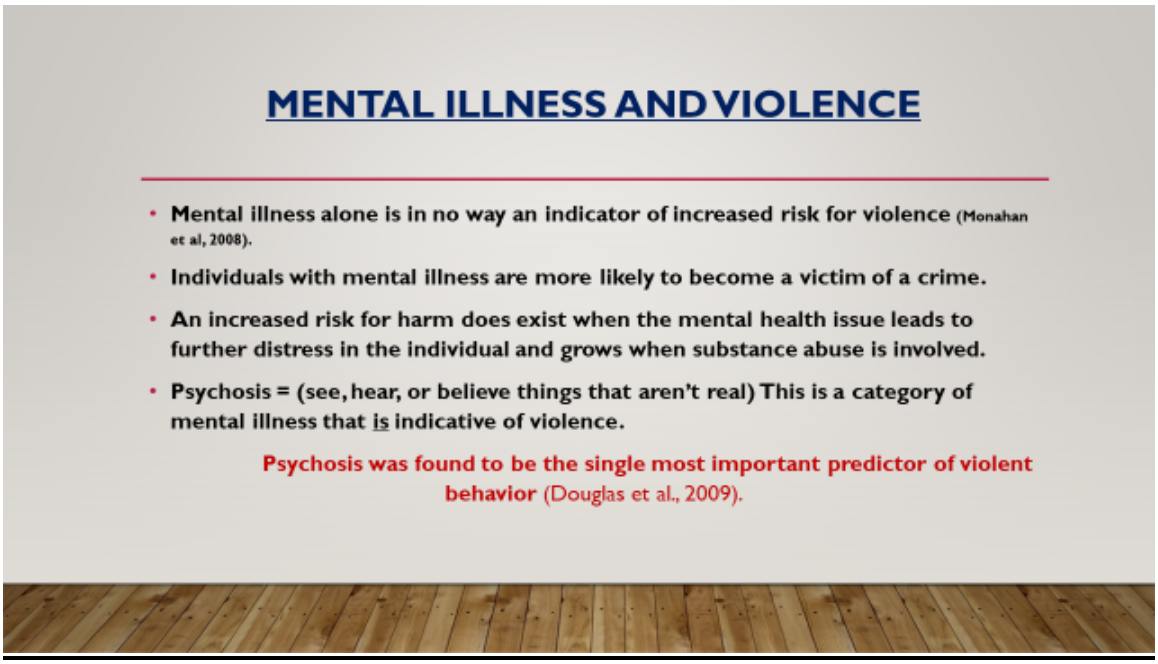

SANDY HOOK PROMISE
BEHAVIORAL INDICATORS
Major change in eating or sleeping habits
Homicidal ideation
Significant personality change
Dramatic changes in personal appearance
Drug or alcohol use or abuse
Recruitment of a friend to join an attack
Warning a friend to stay away from school
Obsession with firearms
Inability to regulate emotions or anger management issues
Sudden change in academic performance
Self-harm or violence towards others
Extreme feelings of isolation or social withdrawal
Overt threats of violence (written, videos, spoken, gestures, pictures)
(Sandy Hook Promise, 2018)

OVERT WARNING BEHAVIORS
Pathway
Fixation
Identification
Novel aggression
Energy burst
Leakage
Directly communicated threat
Last resort behavior
(Meloy, 2011)


OVERT WARNING BEHAVIORS
Research is increasingly pointing away from individual personality traits as useful indicators of risk, and towards patterns of behavior and communication referred to as "Warning Behaviors."
These are patterns of behavior rather than individual risk factors.
Increased Risk
Closer to Overt Act


OVERT WARNING BEHAVIORS
Pathway – Any behavior that is part of research, planning, preparation, or implementation of an attack.
Fixation – Any behavior that indicates an increasingly pathological preoccupation with a person or a cause.
Identification – Any behavior that indicates a desire to be associated with weapons or military style personnel or equipment, to identify with previous attackers, or as a catalyst for change in a specific belief.
Novel Aggression - An act of aggression or violence that is unrelated to the targeted violence object. This warning behavior can be described as a "test" or a "dry run" as it would be utilized to ensure the individual possesses the ability to commit their violent act.
(Meloy, 2011)


OVERT WARNING BEHAVIORS
Energy Burst - An increase in the frequency or variety of any noted activities related to the target usually in the days or weeks before the attack.
Leakage - The communication to a third party of an intent to do harm to a target through an attack. In a recent FBI study, 100% of school shooter displayed this behavior prior to the attack (Meloy & O'Toole, 2011).
Directly Communicated Threat - The communication of a direct threat made to the target or law enforcement beforehand.
Last Resort Behavior -a display of increasing desperation and distress through verbal or written actions, pushing a person to an area where they feel that they are trapped.
(Meloy, 2011)


MENTAL ILLNESS AND VIOLENCE
• Mental illness alone is in no way an indicator of increased risk for violence (Monahan et al, 2008).
• Individuals with mental illness are more likely to become a victim of a crime.
• An increased risk for harm does exist when the mental health issue leads to further distress in the individual and grows when substance abuse is involved.
• Psychosis = (see, hear, or believe things that aren't real) This is a category of mental illness that is indicative of violence.
Psychosis was found to be the single most important predictor of violent behavior (Douglas et al., 2009).

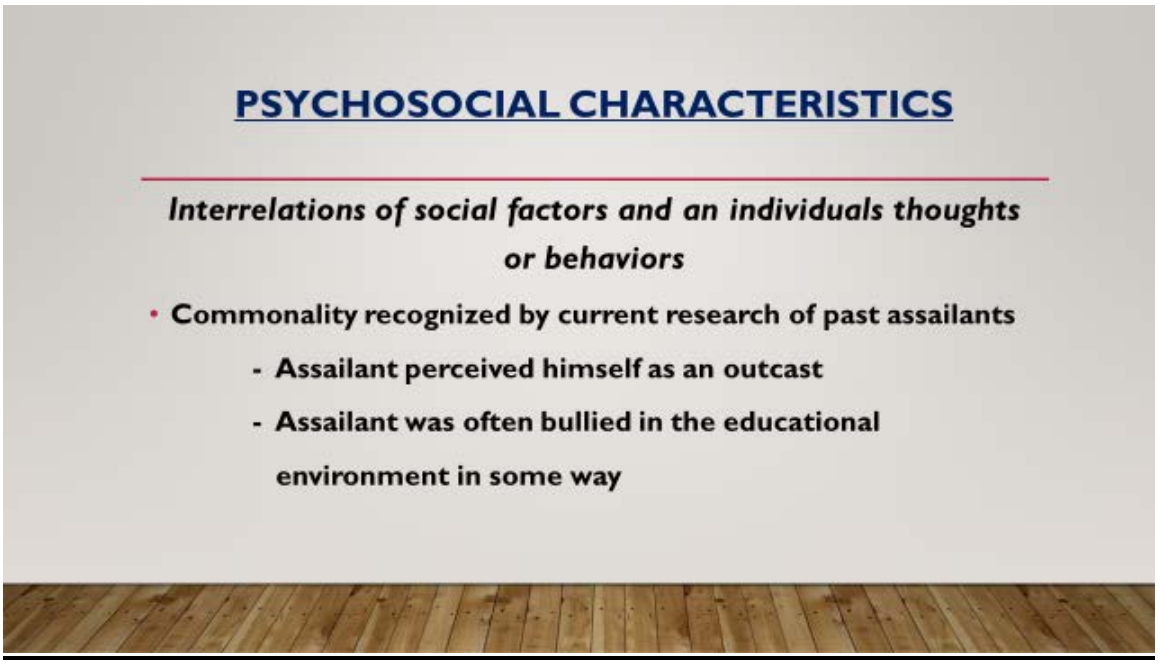
## THREAT CONTROL OVERRIDE

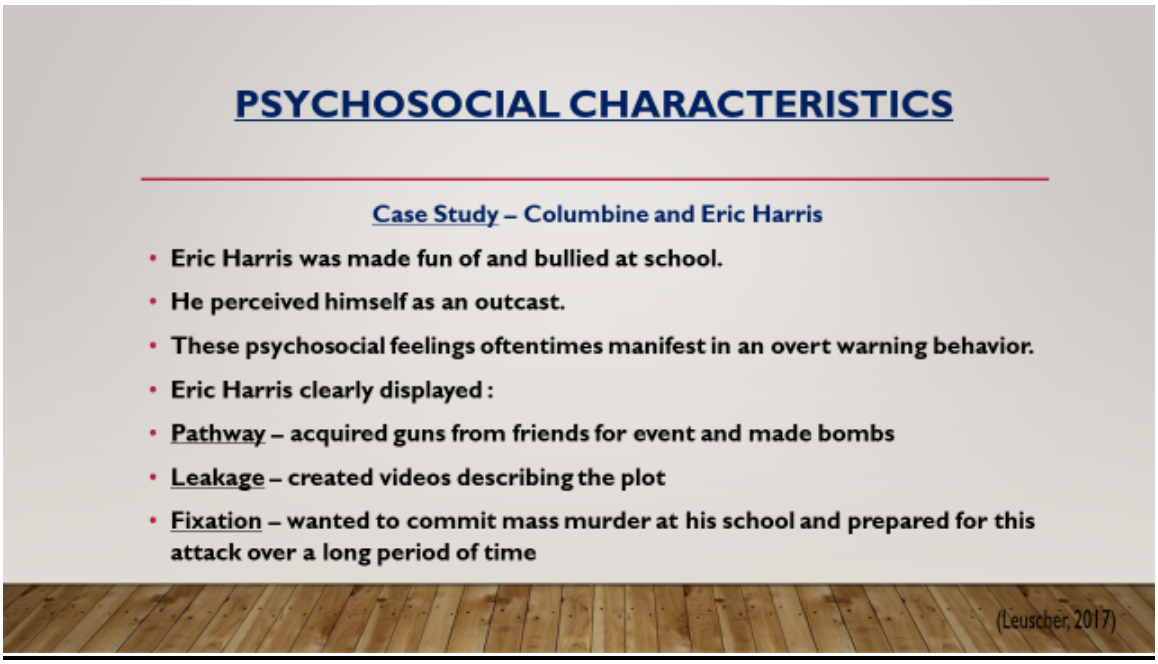
- **A person suffering from a form of psychosis in which they feel others can control them.**

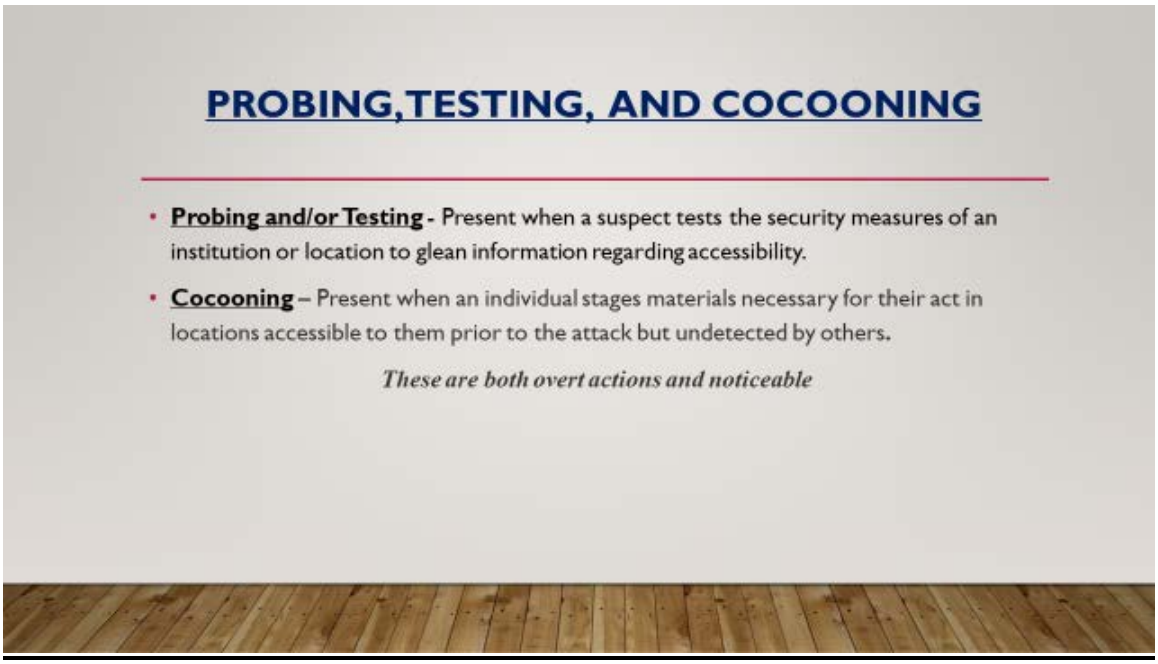
***2.2 times more likely to engage in violent assaultive behavior compared with psychosis patients*** *(Swanson et al., 1996).*

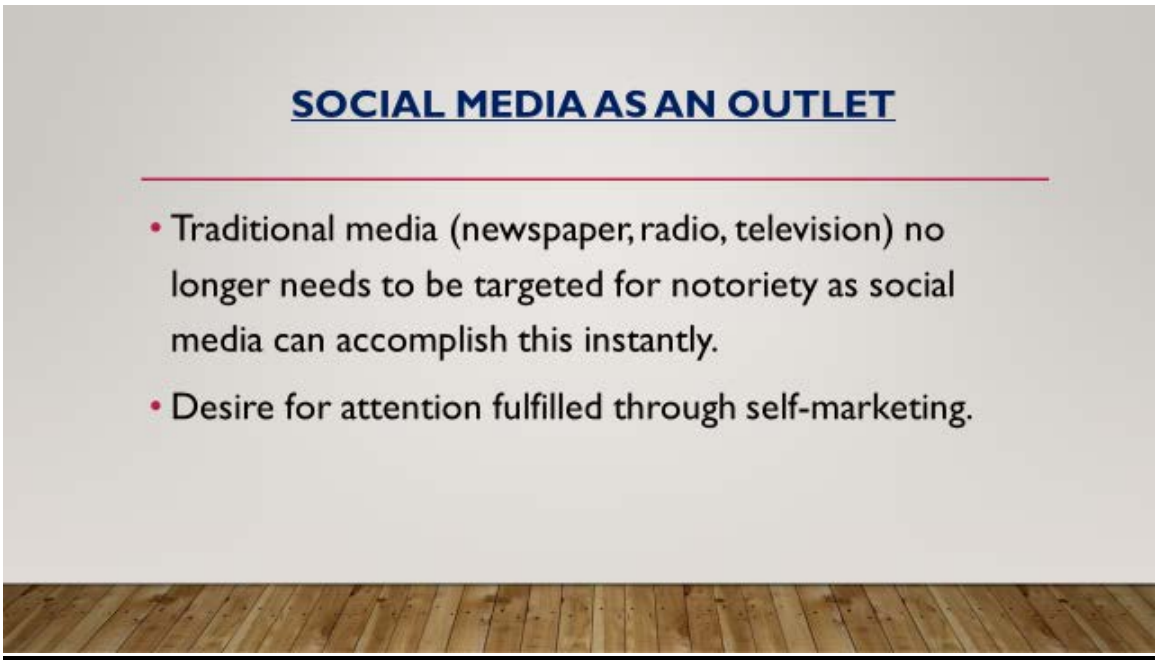
**Case Study – Aaron Alexis**

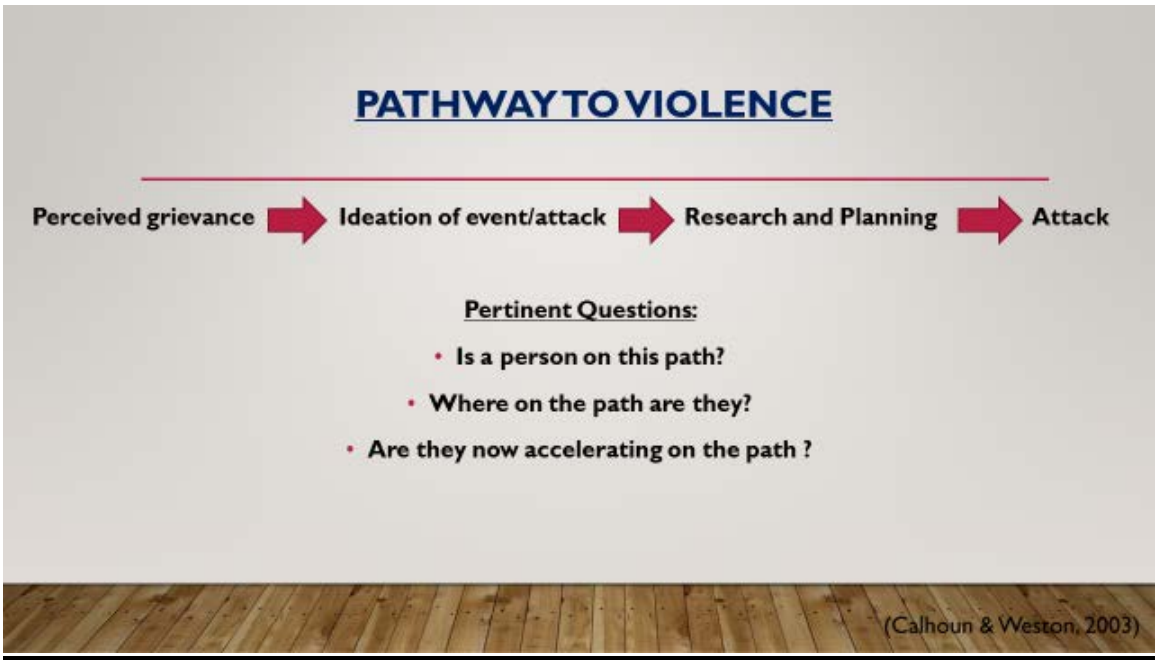
**Navy Yard Shooting** : "We have found relevant communications on his electronic media which referenced the delusional belief that he was being controlled or influenced by extremely low-frequency electromagnetic waves for the past three months" (Nimmo, 2013, para. 5).


PSYCHOSOCIAL CHARACTERISTICS
Interrelations of social factors and an individuals thoughts or behaviors
• Commonality recognized by current research of past assailants
- Assailant perceived himself as an outcast
- Assailant was often bullied in the educational environment in some way


PSYCHOSOCIAL CHARACTERISTICS
Case Study – Columbine and Eric Harris
• Eric Harris was made fun of and bullied at school.
• He perceived himself as an outcast.
• These psychosocial feelings oftentimes manifest in an overt warning behavior.
• Eric Harris clearly displayed :
• Pathway – acquired guns from friends for event and made bombs
• Leakage – created videos describing the plot
• Fixation – wanted to commit mass murder at his school and prepared for this attack over a long period of time
(Leuscher, 2017)


PROBING, TESTING, AND COCOONING
• Probing and/or Testing - Present when a suspect tests the security measures of an institution or location to glean information regarding accessibility.
• Cocooning – Present when an individual stages materials necessary for their act in locations accessible to them prior to the attack but undetected by others.
These are both overt actions and noticeable

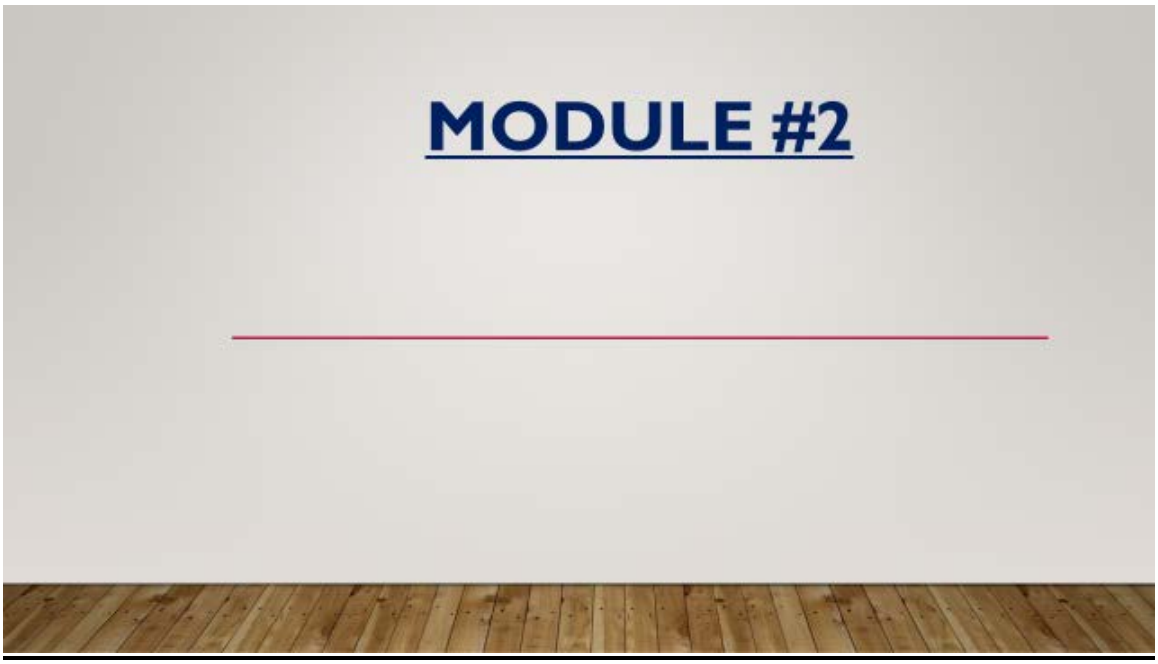

SOCIAL MEDIA AS AN OUTLET
• Traditional media (newspaper, radio, television) no longer needs to be targeted for notoriety as social media can accomplish this instantly.
• Desire for attention fulfilled through self-marketing.

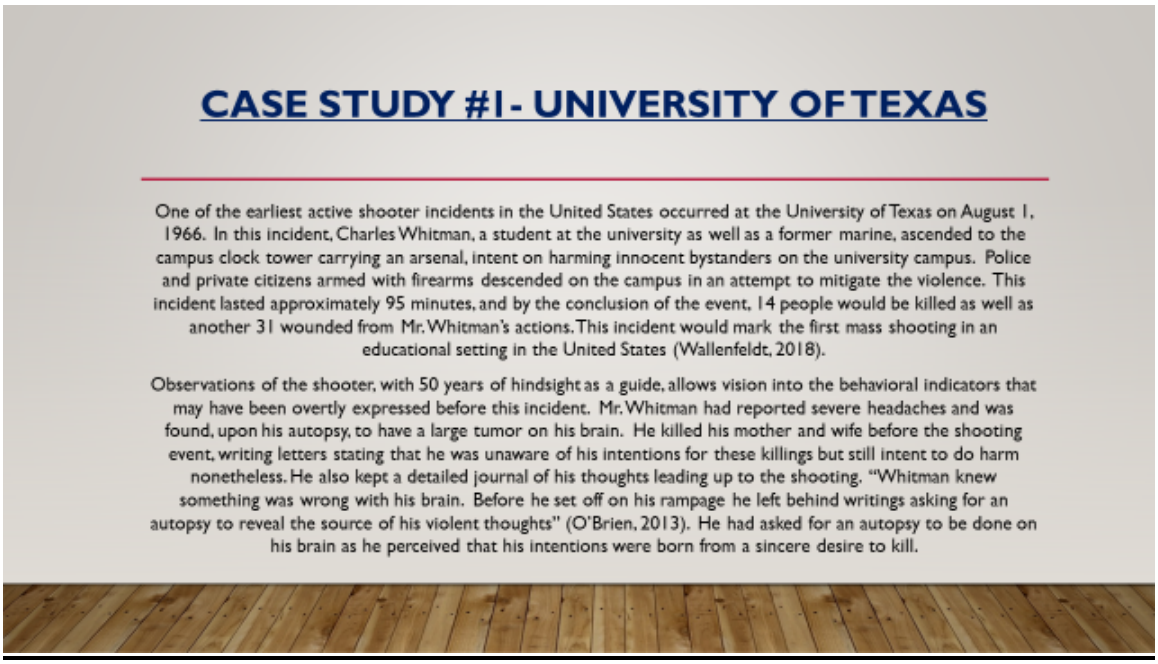

PATHWAY TO VIOLENCE
Perceived grievance
Ideation of event/attack
Research and Planning
Attack
Pertinent Questions:
• Is a person on this path?
• Where on the path are they?
• Are they now accelerating on the path ?
(Calhoun & Weston, 2003)

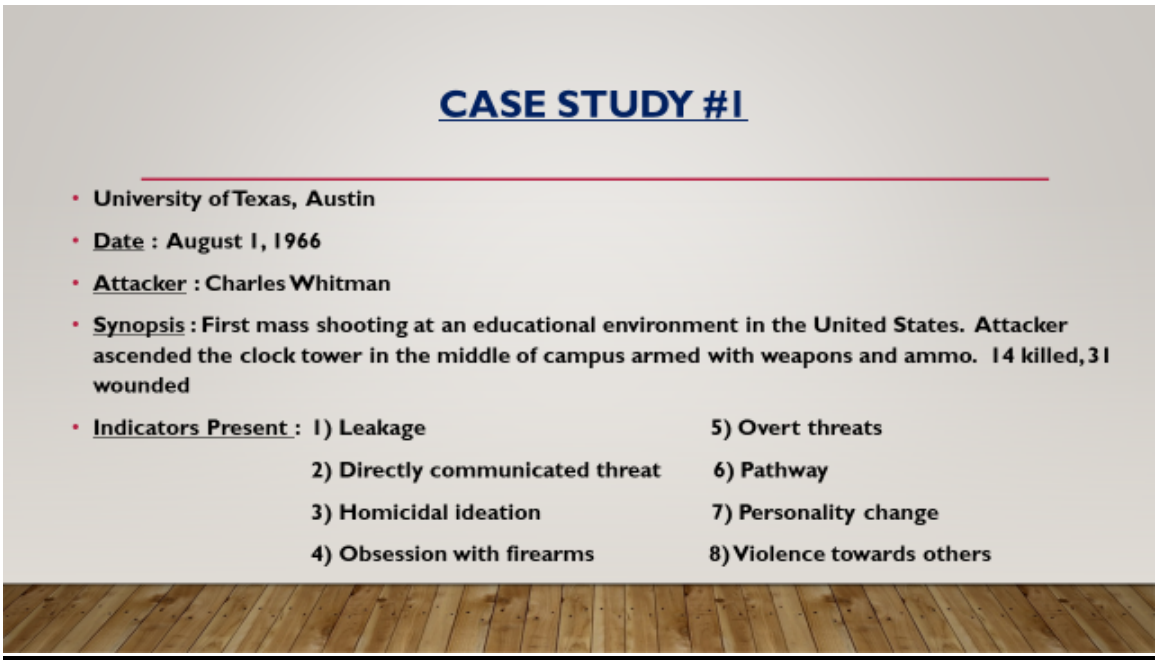
# Appendix B

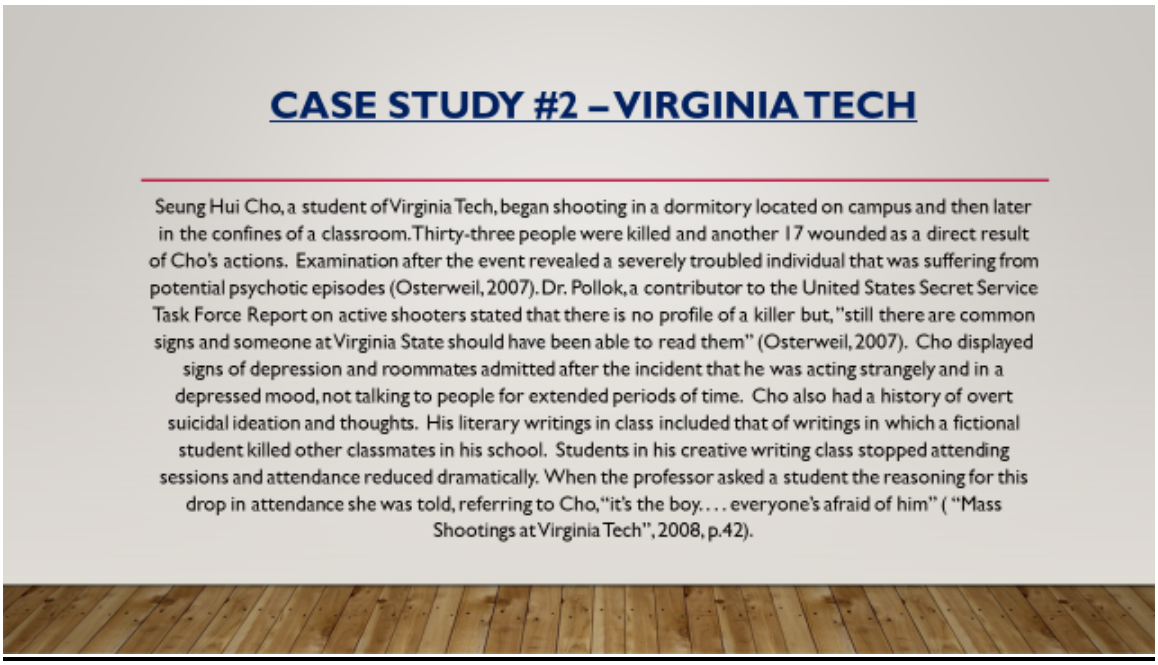
PowerPoint of Curriculum for Module #2

PowerPoint #31-43


MODULE #2


CASE STUDY #1- UNIVERSITY OF TEXAS
One of the earliest active shooter incidents in the United States occurred at the University of Texas on August 1, 1966. In this incident, Charles Whitman, a student at the university as well as a former marine, ascended to the campus clock tower carrying an arsenal, intent on harming innocent bystanders on the university campus. Police and private citizens armed with firearms descended on the campus in an attempt to mitigate the violence. This incident lasted approximately 95 minutes, and by the conclusion of the event, 14 people would be killed as well as another 31 wounded from Mr. Whitman's actions. This incident would mark the first mass shooting in an educational setting in the United States (Wallenfeldt, 2018).
Observations of the shooter, with 50 years of hindsight as a guide, allows vision into the behavioral indicators that may have been overtly expressed before this incident. Mr. Whitman had reported severe headaches and was found, upon his autopsy, to have a large tumor on his brain. He killed his mother and wife before the shooting event, writing letters stating that he was unaware of his intentions for these killings but still intent to do harm nonetheless. He also kept a detailed journal of his thoughts leading up to the shooting. "Whitman knew something was wrong with his brain. Before he set off on his rampage he left behind writings asking for an autopsy to reveal the source of his violent thoughts" (O'Brien, 2013). He had asked for an autopsy to be done on his brain as he perceived that his intentions were born from a sincere desire to kill.


CASE STUDY #1
University of Texas, Austin
Date : August 1, 1966
Attacker : Charles Whitman
Synopsis : First mass shooting at an educational environment in the United States. Attacker ascended the clock tower in the middle of campus armed with weapons and ammo. 14 killed, 31 wounded
Indicators Present : 1) Leakage
2) Directly communicated threat
3) Homicidal ideation
4) Obsession with firearms
5) Overt threats
6) Pathway
7) Personality change
8) Violence towards others

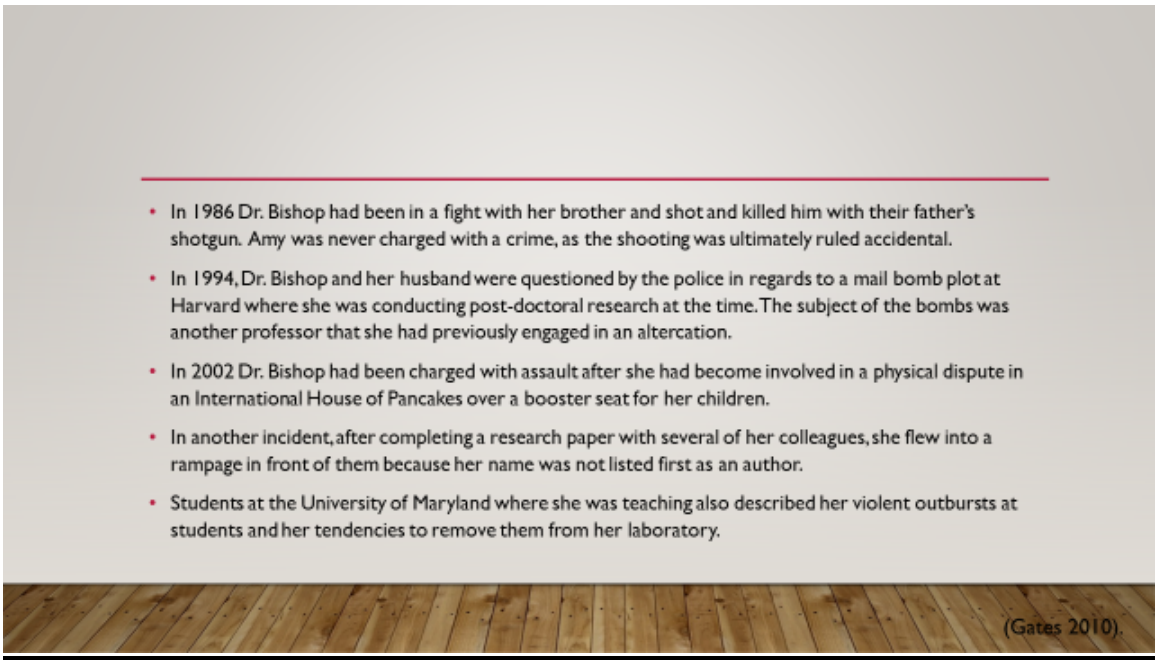

CASE STUDY #2 – VIRGINIA TECH
Seung Hui Cho, a student of Virginia Tech, began shooting in a dormitory located on campus and then later in the confines of a classroom. Thirty-three people were killed and another 17 wounded as a direct result of Cho's actions. Examination after the event revealed a severely troubled individual that was suffering from potential psychotic episodes (Osterweil, 2007). Dr. Pollok, a contributor to the United States Secret Service Task Force Report on active shooters stated that there is no profile of a killer but, "still there are common signs and someone at Virginia State should have been able to read them" (Osterweil, 2007). Cho displayed signs of depression and roommates admitted after the incident that he was acting strangely and in a depressed mood, not talking to people for extended periods of time. Cho also had a history of overt suicidal ideation and thoughts. His literary writings in class included that of writings in which a fictional student killed other classmates in his school. Students in his creative writing class stopped attending sessions and attendance reduced dramatically. When the professor asked a student the reasoning for this drop in attendance she was told, referring to Cho, "it's the boy. . . . everyone's afraid of him" ( "Mass Shootings at Virginia Tech", 2008, p.42).

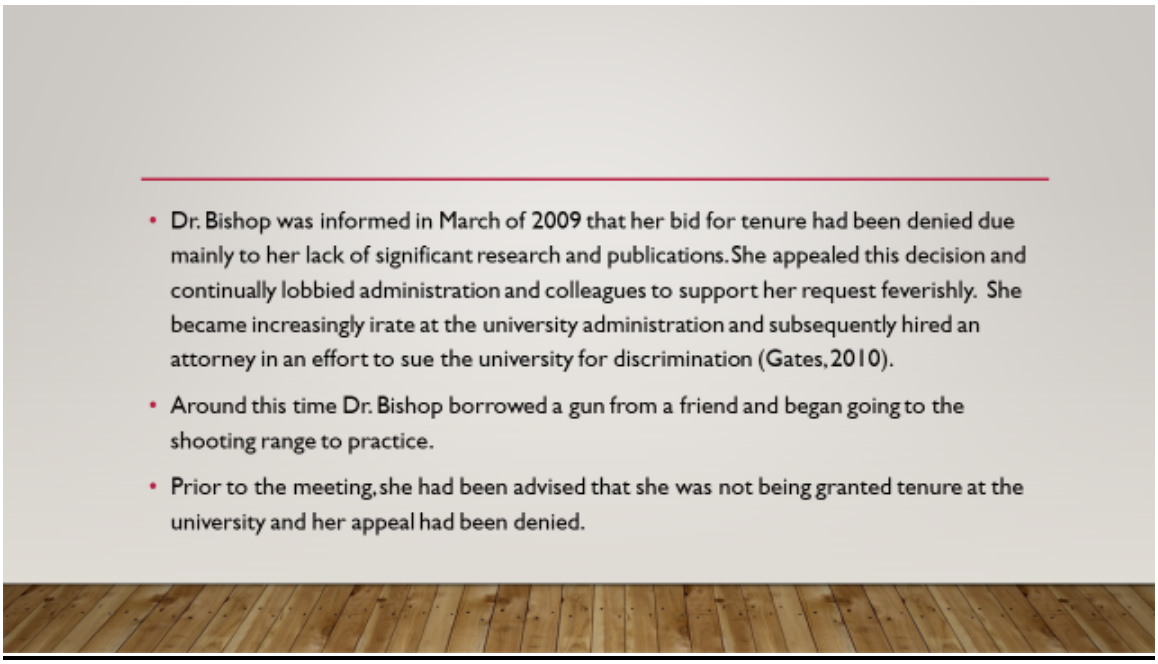
## CASE STUDY #2

- Virginia Polytechnic Institute and State University
- Date : April 16, 2007
- Attacker : Seung Hui Cho
- Synopsis : Seung Hui Cho, a student of Virginia Tech, began shooting in a dormitory located on campus and then later in the confines of a classroom. Thirty-three people were killed and another 17 wounded as a direct result of Cho's actions.
- Indicators Present : 1) Psychotic episodes 5) Last resort 9) Social withdraw
  2) Depression 6) Identification 10) Overt threats
  3) Suicide ideation 7) Pathway
  4) Leakage 8) Fixation

## CASE STUDY #3 – UNIVERSITY OF ALABAMA

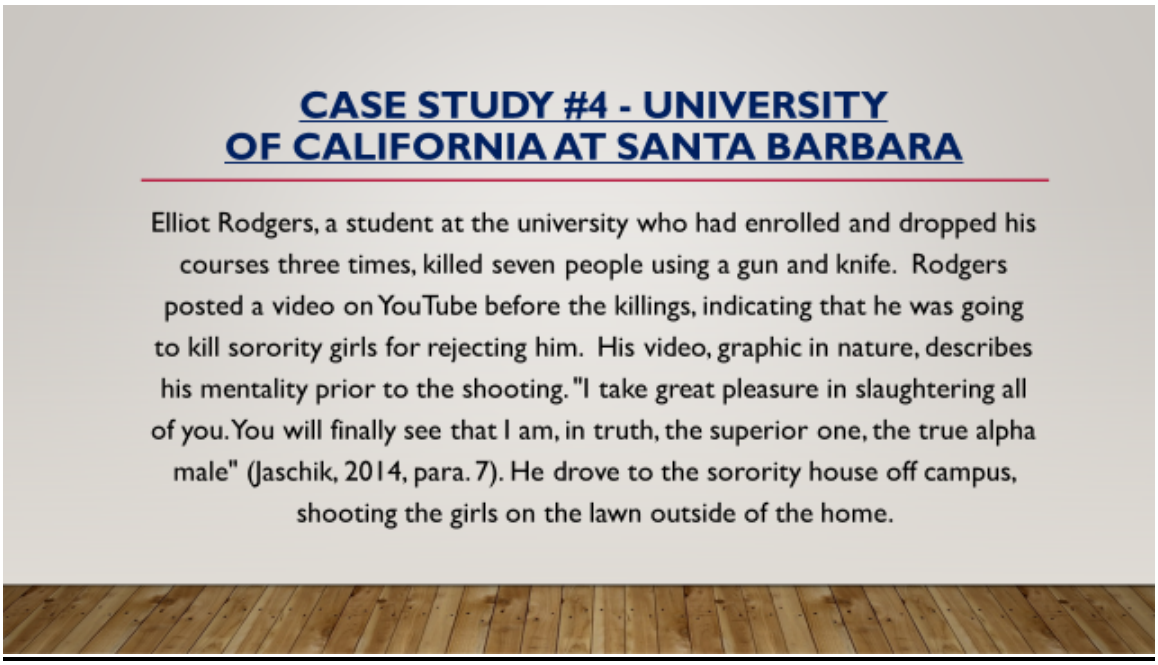
Dr. Amy Bishop possessed a Harvard Ph.D., she was a neuroscientist at the University of Alabama, a biology professor, and mother of four children. On February 12, 2010, Dr. Amy Bishop attended her regularly scheduled departmental meeting in the biology department which commenced at 3:00 pm. Dr. Bishop perused the agenda topics with a handgun secreted in her purse. Amy, usually extravagant and vocal during the meetings, sat quietly as the meeting got underway. After sitting quietly for approximately thirty minutes, she opened her purse, removed her weapon, and shot six of her coworkers. She then went to the bathroom to clean up and borrowed a student's cell phone to call her husband for a ride home..

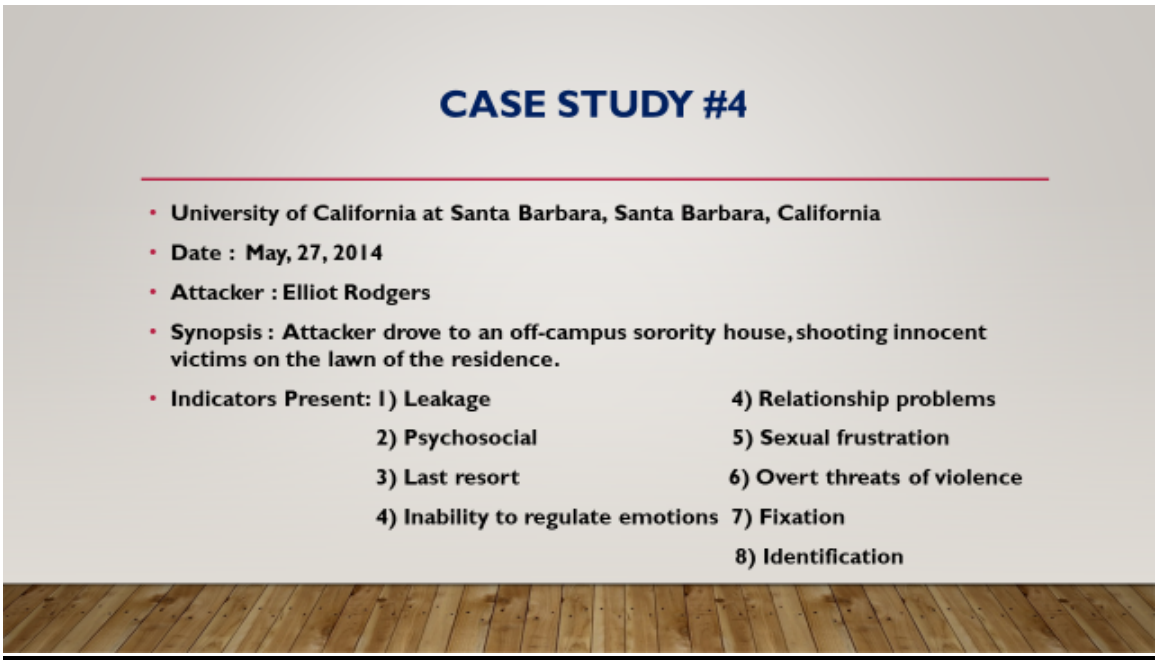

• In 1986 Dr. Bishop had been in a fight with her brother and shot and killed him with their father's shotgun. Amy was never charged with a crime, as the shooting was ultimately ruled accidental.
• In 1994, Dr. Bishop and her husband were questioned by the police in regards to a mail bomb plot at Harvard where she was conducting post-doctoral research at the time. The subject of the bombs was another professor that she had previously engaged in an altercation.
• In 2002 Dr. Bishop had been charged with assault after she had become involved in a physical dispute in an International House of Pancakes over a booster seat for her children.
• In another incident, after completing a research paper with several of her colleagues, she flew into a rampage in front of them because her name was not listed first as an author.
• Students at the University of Maryland where she was teaching also described her violent outbursts at students and her tendencies to remove them from her laboratory.
(Gates 2010).


• Dr. Bishop was informed in March of 2009 that her bid for tenure had been denied due mainly to her lack of significant research and publications. She appealed this decision and continually lobbied administration and colleagues to support her request feverishly. She became increasingly irate at the university administration and subsequently hired an attorney in an effort to sue the university for discrimination (Gates, 2010).
• Around this time Dr. Bishop borrowed a gun from a friend and began going to the shooting range to practice.
• Prior to the meeting, she had been advised that she was not being granted tenure at the university and her appeal had been denied.

## CASE STUDY #3

- University of Alabama, Hunstville, Alabama
- Date : February 12, 2010
- Attacker : Dr. Amy Bishop
- Synopsis : Attacker brought a handgun during a departmental meeting. Three were killed and three were wounded.
- Indicators Present : 1) Fixation and Obsession
  2) Job Related Stress
  3) Rage
  4) Anger
  5) Dramatic change in mood / Mood swings
  6) Conflicts with peers / family members
  7) Multiple past criminal problems


CASE STUDY #4 - UNIVERSITY OF CALIFORNIA AT SANTA BARBARA
Elliot Rodgers, a student at the university who had enrolled and dropped his courses three times, killed seven people using a gun and knife. Rodgers posted a video on YouTube before the killings, indicating that he was going to kill sorority girls for rejecting him. His video, graphic in nature, describes his mentality prior to the shooting. "I take great pleasure in slaughtering all of you. You will finally see that I am, in truth, the superior one, the true alpha male" (Jaschik, 2014, para. 7). He drove to the sorority house off campus, shooting the girls on the lawn outside of the home.


CASE STUDY #4
University of California at Santa Barbara, Santa Barbara, California
Date : May, 27, 2014
Attacker : Elliot Rodgers
Synopsis : Attacker drove to an off-campus sorority house, shooting innocent victims on the lawn of the residence.
Indicators Present: 1) Leakage
2) Psychosocial
3) Last resort
4) Inability to regulate emotions
4) Relationship problems
5) Sexual frustration
6) Overt threats of violence
7) Fixation
8) Identification

SO WHAT DO YOU DO IF YOU RECOGNIZE AN INDICATOR ?
• Notify campus police or local law enforcement immediately.
• Advise them of your observations to include :
- what you saw or heard
- clearly identify the subject/ person observed
- any past history of this type of behavior
- anyone else that might have also made these observations

FURTHER THOUGHTS?
Questions or Comments ?
Thank you for your time.

# Appendix C

Case Study Assessments for Collaborative Exercise #1-3 for Module #3

## Module #3: Activity: Indicators of Violence

# ACTIVE SHOOTER !

## Case Assessment #1

**Activity Purpose:** To understand, recognize, and memorialize indicators of potentially violent behavior in persons on a college campus. This will be achieved through case studies of higher education institution community members and the awareness of the propensity to ultimately commit a violent act based on observable behaviors.

Instructions: Working as a team:

1. Create a list of indicators that you recognize regarding potentially violent behavior if any are present. Based on what you have learned, would the indicators be categorized as a reason for increased awareness (risk factors/stressors) or would they be categorized as an imminent threat (overt warning behaviors / late stage indicators)?

   Would you be likely to report this person's actions to an authority?
2. Record your group's list and your answers on the paper provided.
3. Select a group spokesperson and be prepared to present your list to the class upon completion in twenty minutes.

## Case Assessment #1 – "Star-Performer"

A student at your university, Tom, excels in all of his classes, consistently attaining excellent grades. He has his goals set on becoming an attorney and strives to achieve these future goals through hard work in his undergraduate courses. He receives praise in class from the professors, is always prepared, and his peers even look to him for assistance with their classwork. Tom is driven and always has his assignments completed on time and they have even served as a model for the class. Whenever in public, either in class or simply walking around the university, Tom is well-dressed and looks professional. Tom has a reputation for being upbeat and easy to talk to.

Recently though, you notice that Tom has missed several classes. He has only attended two sessions in the last two weeks of a class that you are in together. When Tom did arrive in class, his appearance was disheveled and unkept. Specifically, his clothes were wrinkled and appeared if he had worn them for several days. His hair was not combed, and he was unprepared for the class assignments as well. Tom did not engage in conversation in the classroom and his overall participation in class group work was minimal.

Tom lives in your dorm and has recently mentioned to your suitemates that he believes other students may have been spying on him. He has even gone as far as to say that he believes other students were talking to him through the walls of the dorm room. Tom's roommate tells you that he has been sleeping on the floor in the same clothes that he wore during the day and he occasionally sleeps with a small knife in his hands. He also said that he "Googled" medication that he found on Tom's side of the room and it is used to treat some mental illnesses.

When scrolling through Facebook you find that Tom posted a video of an individual discussing mind control technologies. Under the post he wrote, "IS OUR GOVERNMENT VIOLATING ORDINARY CITIZENS RIGHTS? UNFORTUNATELY, THE ANSWER IS YES!"

Tom's girlfriend Lisa, is friends with some of your friends and she has confided in them several things regarding Tom. She told them that when they drive in the car together, Tom will not allow her to talk for fear that they are being recorded. She said that Tom has even filed a police report with the campus police alleging that someone had placed cameras in his car to spy on him. He showed her one of these alleged "cameras," and it was actually just a car freshener.

Tom has not been in his room for two days and just left a cryptic message for his roommate stating only that he "does not want to die in vain." He also sent multiple text messages to his girlfriend and his suitemates which they described as "rambling." The central theme of these messages though eluded to someone controlling his mind and listening to his conversations. Multiple packages also arrived in the dormitory mailbox addressed to Tom's suitemates and wrapped in brown bag style packaging. They are afraid to open them.

A check of Tom's Facebook page today has another cryptic style message. It states, "A handler is encouraging me to kill in order to be free." Tom's roommate also just received an email from him. This email states that Tom is currently "being struck with a direct energy beam in his chest and is in extreme pain because of it." This email rambles on but ultimately says that he does not know how much longer he could handle the pain, and he believes the government is currently watching him.

## Elements of the Actual Case for Case Assessment #1

***(to be presented upon completion of the exercise)***

**Florida State University, Tallahassee, Florida**

Date: November 20, 2015

Myron May, an attorney that attended Florida State University and graduated with honors, entered Strozier Library on campus at 12:25 a.m. with a .380 handgun firearm. He began wildly firing and wounded three innocent students that were in the library. Five minutes after the initial assault, May was killed in a shootout with responding police.

May had made multiple phone calls, texts, and left messages for friends as well as his girlfriend just before the attack. One of the messages to an acquaintance stated that he did not want to die in vain. He also mailed a series of ten packages to various friends before the attack and took to social media stating that he was a targeted individual and that a "handler" was encouraging him to kill in order to be free. He had also traveled to his girlfriend's house just before the attack telling her that the police were after him and were bugging his car.

In interviews after the attack, May's girlfriend stated that May would not allow her to talk in the car while they were driving for fear that they were being recorded. May had gone to the police to file a report regarding alleged cameras that were placed in his car to follow his movements. May had shown his girlfriend a piece of metal from his car stating that it was, in fact, the camera when in reality it was not. He also told her that people were talking to him through the walls and these people were continually debating

his every action. May's former college roommate later stated that May was taking medications for his mental illness that caused paranoia and he often believed people were spying on him.

May's girlfriend also reported that he suffered delusions and believed his neighbors were spying on him. He would sleep fully clothed with a knife in hand due to mistrust of his neighbors. She further reported that he was an avid churchgoer but had stopped attending services before the incident. May had also always been a well-dressed professional and practicing lawyer, but in the weeks leading up to the shooting, his appearance had become disheveled and unkept.

Just before the shooting May had sent an email stating that he was currently being struck with a direct energy beam in his chest and was in extreme pain because of it. He further said that he did not know how much longer he could handle it. May believed the government was watching him and had documented this in his journals and made videos about it as well. May's diaries were uncovered after the event which depicted this paranoia and the continually stressed notion that the government was spying on him.

May had also posted a video to social media of former pro-wrestler and Minnesota Governor, Jesse Ventura, discussing mind control technologies. Under the post he wrote, "IS OUR GOVERNMENT VIOLATING ORDINARY CITIZENS RIGHTS? UNFORTUNATELY, THE ANSWER IS YES!" (Vankin, 2014, para. 14).

Below is a sample of one of May's journal entries which he made prior to the shooting.

Journal Entry:

*“On November 14, 2014, I got hit with a directed energy weapon. Right now I’m being hit [with directed energy] as I type this. Through electronic harassment, these individuals convinced me that I was guilty of a crime. Through electronic harassment, my life was constantly threatened”*(Langman, 2016, p. 2)

## Module #3: Activity: Indicators of Violence

# ACTIVE SHOOTER !

## Case Assessment #2

**Activity Purpose:** To understand, recognize, and memorialize indicators of potentially violent behavior in persons on a college campus. This will be achieved through case studies of higher education institution community members and the awareness of the propensity to ultimately commit a violent act based on observable behaviors.

Instructions: Working as a team:

1. Create a list of indicators that you recognize regarding potentially violent behavior if any are present. Based on what you have learned, would the indicators be categorized as a reason for increased awareness (risk factors/stressors) or would they be categorized as an imminent threat (overt warning behaviors / late stage indicators)?

   Would you be likely to report this person's actions to an authority?
2. Record your group's list and your answers on the paper provided.
3. Select a group spokesperson and be prepared to present your list to the class upon completion in twenty minutes.

## Case Assessment #2 – "Strange Obsession"

Mike attends the same university as you and lives down the hall from your dormitory room. He often keeps to himself. He is sometimes a target of bullying for the football players as they live on the next wing of the dormitory. The football players often throw objects at Mike as he passes by their door on the way to class and call him a "loser." Mike will usually accept the abuse without saying anything back and continue walking.

Mike has admitted to his roommate that he has had suicidal thoughts and has even been hospitalized several times over the last two years for psychological evaluations. In one of these instances, he told his girlfriend, Lindsay, that he had thoughts of suicide occasionally and she notified the campus police. They brought him to the hospital where he stayed for several days to be evaluated. His girlfriend had mentioned once at a party that he has even attempted suicide while in high school.

Mike's suitemates described him as being obsessed with infamous people such as Hitler and Ted Bundy. He continually and almost obsessively watches documentaries on both of them in his dorm room on the History Channel while others are at parties or social gatherings. While you were visiting Mike's roommate in his dorm you observed Mike even reciting the words to a documentary on Ted Bundy while watching it.

Mike's girlfriend Lindsay lives in a nearby dorm. Lindsay has told your roommate that Mike is obsessed with the movie *Saw* and even has a tattoo of the main character riding a bicycle through a pool of blood on his back. He has seen each of the eight *Saw* movies multiple times and likes to talk about the plot twists often with her or

anyone else that will listen. You recognize *Saw* as a movie in which a killer stalks other people as his prey. Lindsay has also confided to your roommate that Mike has stopped taking his prescribed medication lately for his "psychological issues." She also mentioned that Mike has recently "acquired" several shotguns and ammunition and keeps them in the basement at his mother's house.

Mike suitemates told you that he recently sent them emails that talked about mass murders in the news with links to the news articles about them. They also noticed on his Facebook page that he posted videos of several mass shootings to include the recent attack on a Mosque in Sri Lanka.

Mike's suitemates have also seen him researching school shootings, to include Columbine, several times on his laptop. They even observed him "Googling" methods to make a bomb using Drano while hanging out in the room. Mike has attempted to engage his roommates in discussions regarding the shootings at Virginia Tech as well as several other school shootings. His focus is often on the killer and how he carries out his plot. He had mentioned that the attack on Virginia Tech had been thoroughly planned out as the killer didn't just shoot his victims, but he actually locked them in a classroom prior to the shooting.

Recently, Mike has experienced multiple life stressors to include the decline in the health of his mother, he has been fired from his job at the local Wawa, and his grades have drastically declined. Mike has also been seen verbally fighting in the hallway several times with his girlfriend, Lindsay.

## Elements of the Actual Case for Case Assessment #2

***(to be presented upon completion of the exercise)***

**Northern Illinois University, DeKalb, Illinois**

Date: February 14, 2008

Steven Kazmierczak, a graduate student at the University of Northern Illinois, armed with a shotgun, three handguns, and multiple rounds of ammunition, opened fire in the University's Cole Hall lecture room, Auditorium 101, as an oceanography class was ongoing. Steven was wearing dark brown boots and a t-shirt that displayed the word terrorist over a picture of an assault rifle. He fired indiscriminately into the class of over 120 students. These actions caused the death of five people, wounded twenty-three and the assault concluded when he took his own life.

In interviews after the attack, Steven's mother described Steven's youth as one that was unfortunately filled with bullying by other kids. She often wished he would stand up to his bullies. "Sometimes I wish he would be a little tougher, and bop the daylights out of people that pick on him. ... One day he will," she wrote in a family book (Boudreau & Zomost, 2009, para 18). In high school, Steven was hospitalized nine times for psychiatric evaluation, multiple suicide attempts, and even created a homemade bomb from Drano.

When attending college, his suitemates described him as being obsessed with infamous people such as Hitler and Ted Bundy. His girlfriend Jessica Baty also described him as obsessed with the movie *Saw* and even had a tattoo of the main character riding a bicycle through a pool of blood.

In February of 2008, Steven began to purchase ammunition and guns and sent emails to friends sensationalizing recent shootings that happened in the news. He also spoke in these emails about world domination and mass murder. According to his girlfriend, three weeks prior to the shooting he had stopped taking his prescribed medication for his mental illnesses.

Steven had also been obsessed with previous school shootings. He had discussed with one of his friends the tactics behind prior incidents including Columbine and Virginia Tech. These tactics included intricate details of the shooting regarding the use of chains to obstruct the doors at Virginia Tech as well as the utilization of bombs in the Columbine shooting incident. Before the shooting, Kazmierczak had experienced multiple life stressors to include the decline in the health of a family member, troubles at work and school, and domestic problems with his girlfriend.

## Module #3: Activity: Indicators of Violence

# ACTIVE SHOOTER !

## Case Assessment #3

**Activity Purpose:** To understand, recognize, and memorialize indicators of potentially violent behavior in persons on a college campus. This will be achieved through case studies of higher education institution community members and the awareness of the propensity to ultimately commit a violent act based on observable behaviors.

Instructions: Working as a team:

1. Create a list of indicators that you recognize regarding potentially violent behavior if any are present. Based on what you have learned, would the indicators be categorized as a reason for increased awareness (risk factors/stressors) or would they be categorized as an imminent threat (overt warning behaviors / late stage indicators)?

   Would you be likely to report this person's actions to an authority?
2. Record your group's list and your answers on the paper provided.
3. Select a group spokesperson and be prepared to present your list to the class upon completion in twenty minutes.

## Case # 3: "Philosophy Class"

Frank is a student at your university that has always appeared "detached" and "withdrawn" from other students at the school. He does have a few friends at college that you see him hang around with, but Frank currently lives off-campus with his mother. His friends, who are acquaintances with some of the friends that you hang around with, occasionally go over to Frank's house after class as his mother is working and not often home.

You and Frank have a philosophy class together. In this class, Frank has expressed opinions regarding the despair in the world and his disdain for people in general. He has stated how he feels his life is insignificant in the world and that it would not matter if he weren't even around. His writings for class assignments, which he has presented to the class, were dark and focused on the end of the world and death and destruction. He has also argued with others in class when they speak of any organized religion. He has been very vocal in stating that he does not believe in religion and even belongs to several anti-religion groups online.

You and other members of your class have also noticed Frank's writings posted on the class blog. One of his recent posts idealized a killer that shot a reporter on live television. His writings central theme in this post describes how the killer was probably insignificant before the shooting but that everyone now knows his name and his "accomplishments."

A friend of yours also noticed Frank on the same online dating site that she was on. In the remarks about his "likes", Frank put, "killer zombies and the internet." The same friend said that she had been to Frank's house one time after class. He showed her ISIS beheading videos and other graphic videos and had discussed black magic and sacrifices with his friends while she was there. He had even told his friends that they should "go out and kill Christians." She thought he was just trying to show off though.

Frank has also been known to have an obsession with guns and frequents the shooting range after class. He can often be overheard talking about guns with his friends prior to class as well.

On his Facebook page he recently "liked" a documentary on the Columbine school shooting. A quick check of his Facebook prior to class revealed a post by Frank stating, "to those that I like, don't go to school tomorrow. . . updates to follow!!"

## Elements of the Actual Case for Case Assessment #3

***(to be presented upon completion of the exercise)***

**Umpqua Community College, Rosenburg, Oregon**

Date: October 01, 2015

Christopher Sean Harper-Mercer, 26 years old and a student at the college, brought a rifle and multiple handguns to his class. He killed nine students and wounded seven.

Harper-Mercer had expressed interest to friends regarding black magic and sacrifices. Harper-Mercer told one of his friends that he should go out and kill Christians and had shared ISIS beheading videos with the same friend. In the days before the shooting, he uploaded a documentary on the Sandy Hook shooting to a website. His mother later advised detectives that he enjoyed watching videos of killings and would critique these videos to her. His mother also described a history of him studying mass killings. The night before the shooting he also informed his mother that he was excited for school the following day which, as she describes, was not typical behavior for her son.

The FBI also believes that Harper-Mercer may have posted a message on a chat site advising those in the site not to attend school the day of the shooting.

Upon arrival, the police engaged Harper-Mercer in a shootout but he ultimately killed himself. The incident was one of the deadliest shootings in Oregon's history.