

The University of Southern Mississippi

TEACHERS' PERCEPTIONS OF THEIR ABILITY TO RESPOND
TO AN ACTIVE SHOOTER INCIDENT

by

Carole Frances Rider

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

May 2015

ABSTRACT

TEACHERS' PERCEPTIONS OF THEIR ABILITY TO RESPOND
TO AN ACTIVE SHOOTER INCIDENT

by Carole Frances Rider

May 2015

The purpose of this research study was to determine Mississippi high school teachers' perceptions regarding their preparedness for an active shooter incident. The study included an extensive literature review that included background and policy context, theoretical foundations, pertinent research and professional perspectives and a worldwide timeline of school shootings. The study also included data collection and analysis, results, conclusions, recommendations for policymakers and educational leaders, and recommendations for further research.

The study was conducted to determine if there was a relationship between school planning procedures, participation in practice and drill activity, and administrator preparedness for an active shooter incident and teachers' perceptions of their own ability to respond effectively to an active shooter incident. The participants for this study were 418 high school teachers in Mississippi. The largest proportion of participants had 20 or more years of experience, and the majority of participants were from the southern region of the state. Eighty-five percent of the participants revealed that their school employs a full-time school resource officer (SRO), yet 43.5% of those participants reported that their SRO did not provide any active shooter preparedness training.

The study also revealed that some Mississippi schools are in violation of state law by not participating in active shooter drills. Thirty-six percent of the participants reported

they did not engage in active shooter incident training. The sub-scale data revealed that participants agreed that their schools have plans in place to respond to an active shooter incident. Participants also agreed that their administrators were prepared to respond to an active shooter incident. However, participants were uncertain if their schools practice and drills were effective for active shooter incidents, and only slightly agreed that they, as teachers, were prepared to respond to an active shooter incident.

In addition, the study revealed a strong relationship between teachers' perceptions of their schools planning procedures, their participation in planning and drill activities, their perceptions of their administrators' ability to respond to an active shooter incident and their perceptions of their own ability to respond effectively to an active shooter incident.

COPYRIGHT BY
CAROLE FRANCES RIDER
2015

The University of Southern Mississippi

TEACHERS' PERCEPTIONS OF THEIR ABILITY TO RESPOND
TO AN ACTIVE SHOOTER INCIDENT

by

Carole Frances Rider

A Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

Approved:

Dr. Michael Ward, Committee Chair
Associate Professor, Educational Leadership and School Counseling

Dr. Leslie Locke, Committee Member
Assistant Professor, Educational Leadership and School Counseling

Dr. James Johnson, Committee Member
Director, Center for Research Support

Dr. David Lee, Committee Member
Associate Professor, Educational Leadership and School Counseling

Dr. Karen S. Coats
Dean of the Graduate School

May 2015

DEDICATION

This dissertation is dedicated to my parents, Ray and Peg Rider. Thank you for instilling in me the importance of education.

This dissertation is also dedicated to the victims of school shootings worldwide.

ACKNOWLEDGMENTS

My sincere thanks and appreciation to Kenneth W. Douglas for the countless hours he spent editing this work. Without his assistance, this work would have been more difficult to accomplish.

To my committee members, without their expertise and guidance this work would not have been completed. I would like to extend my deepest thanks to Dr. Mike Ward, chair of the committee, for his guidance, support and patience throughout this process. His expertise and professionalism have been an inspiration to me. I would like to thank Dr. Leslie Locke for her support through the literature review process and dissertation boot camps. Her enthusiasm and expertise made the journey much easier. To Dr. J. T. Johnson, thank you for lending your expertise in statistics to this project. You made the numbers come to life! Thank you for taking the time to explain what all the data meant and helping me realize how important it is. To Dr. David Lee, thank you for your willingness to serve on my committee. I appreciated your positive comments and encouragement.

Special thanks to Robert L. Smith for his insight and expertise in school safety. You are the real deal and I appreciate all of your comments, suggestions, and support throughout this process.

To my cousins Lyn and Troy Sorensen, thanks for the encouragement and support in finishing this project. To my friends, I extend my gratitude for constant support and encouragement throughout this process: Tracie Rose, Stephanie McCormick, Ray Burr, Jena Mullins, Patsy Boler, Dr. Grady Fleming, Rona Wells, Bobette Jones, Kelvin Doss, Mike Harrast, Bernie Lewis, and Craig and Karen Kodanko.

TABLE OF CONTENTS

ABSTRACT ii

DEDICATION iv

ACKNOWLEDGMENTS v

LIST OF TABLES viii

CHAPTER

I. INTRODUCTION 1

 Statement of the Problem

 Research Questions and Hypotheses

 Delimitations

 Assumptions

 Definition of Terms

 Justification

 Summary

II. REVIEW OF THE LITERATURE 17

 Introduction

 Background and Policy Context

 Theoretical Foundations

 Pertinent Research and Professional Perspectives

 Timelines of U.S. and International School Shootings

 Summary

III. METHODOLOGY 94

 Research Questions

 Research Design

 Participants

 Instrumentation

 Data Collection Procedure

 Analysis of Data

 Summary

IV. RESULTS 108

 Background Items

 Descriptive Statistics for Hypothesis Variable Subscales

 Hypotheses Results

Open-Ended Constructed Response Item
Ancillary Findings
Summary

V.	DISCUSSION, CONCLUSION, AND RECOMMENDATIONS	136
	Summary of Procedures	
	Major Findings	
	Discussion	
	Limitations	
	Recommendations for Policymakers and Practitioners	
	Recommendations for Future Research	
	Summary	
	APPENDIXES	157
	REFERENCES	174

LIST OF TABLES

Table

1. Pilot Study - Cronbach’s alpha for Planning, Practice/Drills, Teacher Preparedness and Principal Preparedness as Viewed by Teacher Subscales.....98

2. Final Study - Cronbach’s alpha for Planning, Practice/Drills, Teacher Preparedness and Principal Preparedness as Viewed by Teacher Subscales.....101

3. Frequencies and Percentages of Number of Years Teaching and Region Where Teaching.....103

4. Frequencies and Percentages of School Identification105

5. Frequencies and Percentages of Active Shooter Incident Drill Practice, and Active Shooter Incident Protocol Update106

6. Frequencies and Percentages of School Resource Officer Employment and Training Provided to Teachers by the School Resource Officer.....108

7. Descriptive Statistics for Planning Subscale.....109

8. Descriptive Statistics for Practice and Drills Subscale.....111

9. Descriptive Statistics for Teacher Preparedness Subscale.....113

10. Descriptive Statistics for Principal Preparedness as Viewed by Teacher Subscale115

11. Number of times active shooter drills are practiced vs perceptions of teacher preparedness, principal preparedness and planning.....125

CHAPTER I

INTRODUCTION

The purpose of this chapter is to introduce the study and to provide the reader with information regarding the importance of teacher preparedness for active shooter incidents. Included in this chapter are the statement of the problem and the research questions regarding teachers' perceptions of their ability and their principal's ability to respond effectively to an active shooter incident. Also included in this chapter are the delimitations, assumptions, definitions of terms, and the justification for the study. Lastly, this chapter briefly discusses why school administrators should implement active shooter training for teachers.

The purpose of this study was to determine high school teachers' perceptions regarding their preparedness for an active shooter incident. The current authorization of the Elementary and Secondary Education Act is commonly referred to as the No Child Left Behind (NCLB) Act of 2001. According to NCLB, "States are held accountable for using research-based programs to improve academic achievement, improve school safety, and reduce drug use" (No Child Left Behind, 2001, p. 22). Waivers to NCLB enacted during the Obama administration have not relieved districts of the responsibility for improving school safety (Hewitt, 2011).

In light of the national, state, and local mandates regarding school safety, one would anticipate specific, uniform guidelines for developing related plans. McConnell and Drennan (2006) reported that although it seemed obvious that there should be a consistent set of guidelines that all crisis management plans should follow, none are apparent. With respect to the specific problem of school shootings, Greenberg (2007) concluded that training is lacking in the area of preparedness for active shooter incidents.

When school shootings occur people wonder what, if anything, could have been done to prevent or reduce the number of students and staff members killed or injured. Media attention is usually focused on the shooter (Alvarez, 2012; Avila, Holding, Whitcraft, & Tribolet, 2008; Caniglia, 2013; Fox & Burstein, 2010). However, insufficient attention has been given to the training that teachers received prior to the incident. This study examined the perceptions of teachers regarding their ability to respond to an active shooter incident and their perceptions of their principals' abilities to respond effectively. This study also explored the literature regarding school shootings, crisis management, school security, and firearms regulations that may have an impact on people's ability to obtain firearms for use in school shootings.

Bethel, Alaska; Chardon, Ohio; DeKalb, Illinois; Jonesboro, Arkansas; Littleton, Colorado; Moses Lake, Washington; New Town, Connecticut; Pearl, Mississippi; Red Lake, Minnesota; Springfield, Oregon; and West Paducah, Kentucky are communities that have experienced a school shooting. "School shootings are a rare, but significant, component of school violence in the U.S." (Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002, p. i). Although there are more reports of bullying and fighting in schools, school shootings leave a permanent scar on the school, the community, and the nation (Ferguson, Coulson & Barnett, 2011; Schuster, 2009; Verlinden, Hersen, & Thomas, 2000; Vossekuil et al., 2002).

In the aftermath of these tragic events, educators, law enforcement officials, mental health professionals, parents, and others have asked: Could we have known that these attacks were being planned? and What can be done to prevent future attacks from occurring? (Vossekuil et al., 2002, p. ii)

The school shootings in Roswell, New Mexico, Albemarle, North Carolina, Philadelphia, Pennsylvania, Marysville, Washington, Seattle, Washington, and Troutdale, Oregon, that took place during 2014, have kept the issue of school violence in the national spotlight. Individuals do not want to believe that a school shooting can happen in their community. Dr. William Dodson, former superintendent of Pearl Public Schools in Pearl, Mississippi, stated in his book, *If Only I Had Known*: “The act seemed to come out of the blue, with Luke Woodham randomly shooting anyone who moved. He did it in a safe and serene community. And he did it on my watch” (p. 1). According to Trump (1999), “on a day-to-day basis, schools will always have initiatives that seem more pressing, but on the day that violence strikes, everything else will be completely inconsequential” (p. 15).

Muschert (2007) discusses five types of school shootings: a) rampage shootings; b) mass murders; c) terrorist attacks; d) targeted shootings; and e) government shootings. Muschert goes on to report that most school shootings are classified as targeted attacks, rampage shootings, or mass murders. In addition to the different types of school shootings, the characteristics of school shooters remain an area of interest among researchers (Hong, Cho, Allen-Meares, & Espelage, 2011; Cullen, 2009; Langman, 2009; Newman, 2004; O’Toole, 1999; Shermer, 2013).

Although no exact profile of a school shooter exists, researchers agree that some school shooters may have certain qualities in common (Brown, Osterman, & Barnes, 2009; Ferguson, Coulson, & Barnett, 2011; Fox & Burstein, 2010; Langman, 2009; Mongan, Smith-Hatcher, & Maschi, 2009). Langman (2009), O’Toole (1999) and Zagar, Busch, Grove, and Hughes (2009) reported that there were certain personality traits

common among some of the school shooters; these included poor anger management and coping skills. In addition, these studies also found that inadequate parental supervision and tense family relationships were common in some of the school shooters' backgrounds.

Ferguson et al. (2011) reported that trying to identify potential school shooters resulted in "a considerable amount of misinformation and arguably considerable damage to individual youth, scientific integrity, and misguided public policy" (p. 142).

Administrators and teachers who attempt to identify students who may pose a potential threat should proceed with caution. Nevertheless, they should act quickly when they suspect that a student poses a danger to himself or others. A thorough, but expeditious, investigation should take place before any action is taken.

In the wake of the Sandy Hook Elementary shooting in 2012, school violence discussions once again became a top priority for educators (McGee, 2013), legislators (Johnson, 2013; Koenig, 2013; McVeigh, 2013), law enforcement (Wyllie, 2013), and mental health professionals (Swanson, 2013). When tragedies like this occur, these professionals typically come together to determine effective safety and emergency preparedness strategies for U.S. schools. Media agencies continue to report on measures taken by school districts and local, state, and federal governments in the wake of the Sandy Hook Elementary tragedy.

It is important for administrators to think in terms of when, instead of if, a violent episode might occur at their school. They should ask themselves how prepared they are to respond effectively to a crisis situation (Hull, 2000). Being prepared for a crisis depends on the commitment of school leadership to address safety issues (Brunner &

Lewis, 2006; Estep, 2013; Schuster, 2009). Administrators who are proactive instead of reactive in terms of crisis management may be more likely to stop an event from occurring or lessen the severity of an event. A well-developed school crisis plan is a dimension of proactive behavior in this area of school leadership.

Safety is the pivotal component of crisis management. The most important considerations for a school district are the health, safety, and welfare of students and staff. A crisis management plan details how to identify, confront and resolve the crisis, restore equilibrium and support appropriate adaptive responses. (Estep, 2013, pp. 13-14)

Crisis plans typically focus on facilities and systems, but may neglect people who are affected by a crisis. It is important to prepare individuals to cope with emergencies that may occur. Because people react in different ways under stress, there are many ways to prepare people to take a successful approach to managing a violent situation (Badzmierowski, 2011).

Training teachers to communicate effectively during an active shooter incident is one way to prepare teachers for such an incident. This type of training could increase the likelihood that they will respond confidently and effectively. Communication during a crisis needs to be as simple and clear as possible. However, such communication should address four issues: keeping oneself safe, assessing the situation, summoning assistance, and making the environment as safe as possible for students and staff (Badzmierowski, 2011). According to Schonfeld, Lichtenstein, Pruett, and Speese-Linehan (2002), members of a crisis management team also have an obligation to provide accurate information to staff, students, parents, and the media. This information includes

determining the type of response effort needed, necessary support services, and stifling rumors.

The shooting incident in September of 2013 at the Navy Yard in Washington, D.C., brings to light another communication issue – social media. Heverin and Zach (2012) stated that “response agencies and the news media may not even be the preferred source of crisis-related information for some; many citizens now actively provide crisis-related information to each other through social media tools” (p. 34). The shooting incident at the Navy Yard is an example of how social media tools such as Facebook and Twitter are used as a means of communicating information during a crisis.

Statement of the Problem

School-based violence has been an ongoing issue for school districts for many years. According to a study of youths in grades 9 through 12, the Centers for Disease Control (2013b) reported that:

- “12% of students reported being in a physical fight on school property in the 12 months before the survey.” (p. 1)
- “5.9% of students reported they did not go to school on one or more days in the 30 days before the survey because they felt unsafe at school or on their way to and from school.” (p. 1)
- “5.4% of students reported carrying a weapon (gun, knife [*sic*] or club) on school property on one or more days in the 30 days before the survey.” (p. 1)
- “7.4% of students reported being injured or threatened with a weapon on school property at least once in the 12 months before the survey.” (p. 1)

- “20% of students reported being bullied on school property and 16% of students reported being bullied electronically [social media] in the 12 months before the survey.” (p. 1)

As was noted previously, school shootings are a rare occurrence in U.S. schools (Ferguson et al., 2011; Vossekuil et al., 2002); nevertheless, teachers and administrators should be trained to respond effectively in the event of a shooting incident. According to Flores de Apodaca, Brighton, Perkins, Jackson, and Steege (2012), fatal shootings occurred more in urban and suburban schools than in rural schools. They also found that fatal shootings were more common in public schools with larger enrollments. Although rare, school shootings account for the most deadly form of school-based violence (Verlinden et al., 2000).

Teacher preparedness for emergencies is an important facet of an effective response in a crisis. On the other hand, lack of teacher preparedness for a school shooting incident may put students’ and teachers’ lives in danger. The following is an excerpt of a 911 call placed by a teacher in the library at Columbine High School on April 20, 1999:

The school is in a panic. And I’m in the library. I’ve got students, under the table. Kids! Kids under the table! Kids are screaming... We need police here... He turned the gun straight at us and shot and my God, the window went out. And the kid standing there with us, I think, I, he got hit. (Sounds of gunshots.) Oh! God! Oh! God!... He’s outside of this hall...He’s in the hall... There are alarms and things going off, there’s smoke, my God, smoke is like coming... I’ve got kids

under the tables here, I don't know what is happening in the rest of the building.

(Eisenbraun, 2007, pp. 459-460)

This excerpt is very fragmented and the information does not appear to be conveyed very well. The teacher was most likely under an extreme amount of stress. However, her frantic messages may illustrate a lack of training in emergency preparedness or failure to follow procedure in conveying information to the 911 operator.

Cawood (2010) found that school administrators often sought the help of social workers to implement programs for students who might be a danger to other students. However, the social workers reported that administrators do not allow them the time they need to work with the students and implement violence prevention programs. The results of Cawood's survey revealed the number one reason given by administrators for not implementing violence prevention programs was that it would interfere with instructional time (due to the strict mandates of NCLB to improve student achievement). In addition, other reasons given for inadequate violence prevention measures included lack of money and resources to train staff. While the pressure to improve student achievement continues to increase among school districts across the U.S., administrators should not neglect school safety issues (Trump, 2009).

The importance of training school personnel to respond effectively to an active shooter incident should not be ignored by administrative personnel. Goddard and Goddard (2001) reported that schools that provided little support for their teaching staff were associated with decreased teacher self-efficacy, and these teachers were less willing to cope with their students' problems. This could mean that teachers who are not confident in their ability to help their students cope with a problem may also not feel

confident to respond effectively in an active shooter situation. Espelege and Swearer (2003) reported that effective violence prevention programs that are focused on domains such as targeting students who may be at-risk for violent behavior, providing staff training, and engaging in home-school collaboration are more effective than those that focus on an individual domain.

Research Questions

The principal goal of this research study was to determine whether teachers in Mississippi believe that their school districts adequately train them to respond effectively to an active shooter incident in their schools. The researcher used a quantitative approach. The research questions for this study were:

1. What are teachers' perceptions of their own preparedness to respond effectively to an active shooter incident?
2. What are the perceptions of teachers regarding planning in preparation for active shooter incidents?
3. What are the perceptions of teachers regarding practice and drills in preparation for active shooter incidents?
4. Are the perceptions of teachers regarding planning related to their perceptions of their own preparedness to respond effectively to an active shooter incident?
5. Are the perceptions of teachers regarding practice and drills related to their perceptions of their own preparedness to respond effectively to an active shooter incident?
6. To what degree do teachers perceive that their administrators are prepared to respond effectively to an active shooter incident?

7. Are the perceptions of teachers regarding their administrators' preparedness to respond to an active shooter incident related to their perceptions of their own preparedness to respond effectively to an active shooter incident?
8. What problems do Mississippi schools face in terms of preparing teachers for active shooter incidents?

The following related hypotheses were addressed in the study:

H₁: The perceptions of teachers regarding planning are related to their perceptions of their own preparedness to respond effectively to an active shooter incident.

H₂: The perceptions of teachers regarding practice and drills are related to their perceptions of their own preparedness to respond effectively to an active shooter incident.

H₃: The perceptions of teachers regarding their administrators' preparedness to respond effectively to an active shooter incident are related to their own perceptions of their preparedness to respond effectively to an active shooter incident.

Delimitations

Participants for this study were delimited to high school teachers (grades 9 through 12). Teachers who participate in this study were employed in school districts in Mississippi. This study measured teachers' perceptions about their ability to respond effectively to an active shooter incident and not the actual construct of ability to respond. Similarly, it also measured perceptions about an administrator's capacity to handle a crisis rather than his/her actual capacity to do so.

Assumptions

It was assumed that all participants in this study were truthful while completing the questionnaire. It was also assumed that the participants in the study had a basic knowledge of their individual school's crisis management plan and about their principal's capacity to respond to a crisis. Lastly, it was assumed that participants completed the study questionnaire without fear of potential negative consequences for their responses.

Definition of Terms

Active shooter: according to the U.S. Department of Justice (2013), "an active shooter is an individual actively engaged in killing or attempting to kill people in a confined and populated area" (p. 1) by using firearms or explosives. For the purposes of this study an active shooter is a person who commits a shooting at a K-12 school or college campus.

Active shooter incident: an active shooter incident involves one or more persons engaged in killing or attempting to kill one or more people in an area (or areas) (Blair & Martaindale, 2013). For the purposes of this study an active shooter incident takes place at a K-12 school or college campus.

Crisis: a situation or event that is experienced or perceived as difficult and can put a strain on available resources such as personnel, procedures, and coping mechanisms (Badzmierowski, 2011); Any event that causes emotional and social distress that occurs without warning and at any time (MacNeil & Topping, 2007). For the purposes of this study a crisis involves a dangerous event that disrupts the school environment and requires immediate action.

Crisis management: activities conducted in a coordinated way to control emergencies before, during, and after a crisis event (Tveiten, Albrechtsen, Waero, & Wahl, 2012).

Crisis management plan: For the purposes of this study a crisis management plan is an emergency plan document that is utilized in the event of an active shooter incident in a K-12 school or college campus.

Culture of honor: a belief that violence is a suitable solution to defend or reestablish a person's reputation, family, or property (Brown et al., 2009).

Emergency preparedness: For the purposes of this study emergency preparedness means a school employee's ability to respond appropriately in the event of a school shooting. This response includes the prevention, reaction and follow-up actions performed in the event of a school shooting.

School climate: a manifestation of the positive or negative feelings pertaining to a school environment, which may directly or indirectly impact a variety of learning outcomes (Peterson & Skiba, 2001).

School resource officer: a school police officer who performs a multidimensional role incorporating the responsibilities of law enforcement officer, counselor, teacher, and contact between local law enforcement, schools, families, and the community (Brown, 2006).

School violence: violence that occurs on school property, on the way to or from school or at a school-sponsored event (Centers for Disease Control, 2013b).

Justification

This study was useful because it provided insights into teacher perceptions of their preparedness, or lack thereof, for responding to active shooter incidents. In 2009, Finkelhor, Turner, Ormrod, Hamby, and Kracke conducted a study in which they found:

“More than 60 percent of the children surveyed were exposed to violence within the past year, either directly or indirectly” (p. 1). This means that they may have witnessed a violent act; learned of a violent act against a family member, neighbor, or close friend; or heard of a threat against their home or school.

Training teachers in crisis management before an incident occurs could create a sense of confidence (i.e. high self-efficacy) among personnel. “People will always be the weakest link in school security and emergency plans. The question is, how weak will we allow them to be?” (Trump, 2009, p. 28). According to Brunner and Lewis (2006), if teachers are not prepared to respond effectively to a crisis, the outcome of a violent situation could be more injuries or fatalities. They recommended that administrators provide time for training teachers in effective methods for responding to school crises (Brunner & Lewis, 2006). Sela-Shayovitz (2009) conducted research in the area of perceived self-efficacy among teachers regarding their ability to effectively respond to acts of school violence. Her results revealed that teachers do not feel confident in their ability to respond effectively to acts of school violence. She also reported that “despite the high incidence of school violence, most teachers do not participate in violence prevention training programs” (p. 1064). This suggests that if teachers participated in school violence training programs, they may have a higher level of self-efficacy (i.e.

more confidence) with regard to their ability to respond effectively to acts of school violence, including active shooter incidents.

Another aspect of ensuring secure educational environments is the preparedness and effectiveness of the school administrator with respect to issues of school safety, in particular school shootings. School safety is a leadership issue. Sergiovanni (2007) identified four pillars of leadership: leaders; followers; ideas; and actions. According to Folks (2008), the action pillar is central in school-safety leadership. In school districts where measures related to local, state, or federal mandates that require administrators to be accountable for the safety of the staff and students are lacking, it remains the responsibility of each individual principal to make safety a priority in her or his building. Folks (2008) also reported that:

Students, parents, staff, and community are counting on the leadership of the building administrator. School administrators can make a difference. School leaders must challenge themselves to make school safety as high a priority as any other issue on their plate, including academic success. (p. 14)

This study may enlighten education professionals (i.e. administrators, teachers, and school board members) and policymakers regarding the importance of training teachers to respond effectively to an active shooter incident by showing the need for specific training to increase teacher confidence in responding to active shooter incidents.

Summary

This chapter described the purpose of this study, which was to determine teacher perceptions regarding their ability to respond effectively to an active shooter incident. Unfortunately, acts of violence occur daily in the U.S., and schools are not exempt from

such acts. School districts may not, in every instance, be able to prevent a student from bringing a gun to school. However, if school personnel are trained to effectively respond to an active shooter incident, the severity of the incident could be minimized. This could result in fewer deaths or injuries. According to Verlinden et al. (2000), school shootings are a rare but deadly occurrence. However, these events leave a lasting impression on all people involved. A community that has experienced a school shooting is forever linked to that incident.

Fox and Burstein (2010) reported that without the support and cooperation of faculty, staff and students, even a well thought out crisis plan will fail. Thorough plans associated with school safety include education, prevention, intervention, discipline, security, and crisis preparedness measures that might include table-top exercises and training drills (Erickson, 2010; Estep, 2013; Greenberg, 2007; Krisberg, 2007; MacNeil & Topping, 2007; NyBloom, 2003; Surface, 2011; Trump, 2009). Perhaps implementing the above approach to school safety would reduce teachers' fears regarding their ability to respond effectively to an active shooter event. In addition, it may reduce fears some students may have about attending school.

It is important that students feel safe in a school environment. For students, these feelings can be compromised by actual threats or perceived threats (Surface, 2011). If students believe that their teachers are prepared to respond in an emergency, they may feel more at ease at school. Therefore, it is likely important for school leaders to be prepared to respond appropriately to all acts of violence including an active shooter incident.

Due to shootings in schools across the nation, more research is needed to address the preparedness of teachers to respond effectively to an active shooter event (Brunner & Lewis, 2006; Schuster, 2009; Trump, 2009). This chapter introduced the reader to the importance of training teachers to respond effectively to an active shooter event. Key points of the chapter included a brief description of the types of school shootings, policymakers involvement in trying to reduce the number of incidents of school shootings and the importance of effective communication during a crisis situation.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

There have been a number of active shooter events on school campuses in the United States in recent years. Leuschner et al. (2011) reported that the number of school shootings in the United States is higher than in any other nation. These incidents have left officials of school districts, communities, law enforcement agencies, government agencies, and mental health agencies with questions on how to prevent such acts from occurring and how to respond effectively when they do occur.

The purpose of this chapter is to provide the reader with a background on school shootings and their effects on teachers' perceptions regarding their training to respond to an incident in their school. In 2011 Craig, Bell, and Leschied found that teachers with prior violence prevention training were more confident in their preparedness to respond to acts of school violence when compared to teachers who had not had any training in violence prevention. This chapter contains a review of the literature describing school security, gun control, crisis management and response, student achievement, school climate, the theory of self-efficacy, emergency management theory, characteristics of school shooters, and a time-line of school shootings.

Background and Policy Context

There are many issues related to school safety and violence prevention; however, school shootings are a major concern. This section of the literature review explores the issues faced by school administrators when making decisions about the safety of students

and staff. It also includes a section related to gun control that may help explain the possible reasons that school shooters were able to gain access to their weapons.

School Security

Crime in schools is a serious concern for all individuals with a vested interest in the school and community. These individuals include students, faculty, administrators, policymakers, law enforcement personnel, and community members (Bomber, 2013; Jennings, Khey, Maskaly, & Donner, 2011; Kennedy, 2013). Bosworth, Ford, and Hernandez (2011) stated that “the idea of harm befalling a child at school is unacceptable to most adults; however, school safety remains a popular topic in the media, particularly whenever a serious incident occurs at a school” (p. 194). School security issues such as shootings, stabbings, and other forms of violence have led school districts to rethink their security efforts (Butler, 2007; Kennedy, 2001, 2013). These efforts have included adding technology such as cameras and closed circuit television systems (CCTV); metal detectors; facility upgrades such as better doors, locks, and windows; the implementation of school resource officer (SRO) programs; and the implementation of dress codes (Garcia, 2003; Jennings et al., 2011; Kennedy, 2001). In a survey of 41 school administrators in 15 states, Garcia found that schools used:

- video cameras (90% of schools)
- closed-circuit television (82% of schools)
- metal detectors (23% of schools)
- an entry control device (18% of schools).

Two-thirds of the schools surveyed believed that video cameras were the most effective measure of school safety, followed by weapon detectors and entry control devices.

Bosworth et al. (2011) reported that:

There are still a considerable number of threats to safety in schools and on school grounds. More than 10% of high school students report having been in a fight at school in the last year, 5.5% did not go to school in the past 30 days because of fear, 6% reported carrying a weapon at least once in the past 30 days, and 27% reported property being stolen or damaged. (p. 194)

Violence in schools can affect a student's physical, emotional, and social health. This hinders school administrators and teachers from implementing the fundamental objectives of education (Johnson, 1999). Although school shootings are a rare occurrence, incidents have raised concerns about the effectiveness of school security measures to ensure the safety of students and staff (Bomber, 2013; Jennings et al., 2011; Kennedy, 2001). Jennings et al. (2011) reported that there is some debate regarding the effectiveness and constitutional legality of metal detectors, but research has shown that they are useful in reducing the number of guns and knives at school and in reducing the level of fear of violence at school (Tillyer, Fisher, & Wilcox, 2010). Metal detectors were instrumental in recovering over 2,000 weapons in New York City public schools in 1991 and 15 guns and 294 other weapons in Chicago public schools in 1991 (Johnson, Burke, & Gielen, 2011).

Many school districts have increased or upgraded their security procedures and technology in the wake of school shootings (Bomber, 2013; Kennedy, 2013). However, Trump (2009) stated that:

Time and distance from a major high-profile tragedy breeds complacency and fuels denial. Absent a major school shooting in the news or a politically hot school safety situation, it has become far too easy for day-to-day education activities to overshadow safety, security, and emergency preparedness planning.

(p. 28)

Security experts have given their advice on what school administrators should do to increase safety and security in their district (Bomber, 2013; Trump, 2009). It is recommended that school districts undergo a security assessment to help identify vulnerabilities, set priorities, and determine what steps should be taken to improve security measures (Bomber, 2013; Kennedy, 2013; Trump, 2009). Bomber recommended breaking security into two categories: indoor security and outdoor security.

Indoor security measures consist of:

- Keeping hallways and stairwells free of debris;
- Securing doors and windows;
- Directing visitors to the main entrance;
- Maintaining a security area at the main entrance where visitors can sign in and out of the building. School personnel should be able to identify all visitors and track their time in the building and their destinations.

Outdoor security measures consist of:

- Limiting debris and install lighting to reduce the areas available to hide;
- Fencing in areas such as playgrounds and athletic fields to keep unwanted visitors off school grounds;
- Having space between parked cars and fenced areas to increase visibility.

In addition to the above recommendations, Trump (2009) recommends that schools:

- Install surveillance cameras to monitor entrances, hallways, stairwells, parking lots, and cafeterias;
- Implement communication upgrades such as two-way radios which will enhance communication between administration, teachers, and law enforcement;
- Consider renovations and new school designs that will force people to the main office, and improve the line of sight in hallways.

Erickson (2010) also made recommendations for implementing security measures.

He stated, “In designing security for schools, architects and facilities committees should include objectives in the educational specifications with descriptions and expectations for providing a safe learning environment” (pp. 26, 28). Erickson went on to say that architects who engage in this type of design follow two paths: “intuitive design which consists of facility layouts and design standards that promote safety; and active design which uses technology and electrical systems for the final measure of providing a secure learning environment” (p. 28). For example, intuitive design measures may be a visitor-friendly site entrance with appropriate signage, well-marked vehicle and pedestrian areas, and controlled access to the building. Examples of active design are cameras at site and building entrances, walk-through security lighting, and a backup power supply for phones and other forms of emergency communications.

In addition to addressing the physical features of a school, school security also encompasses security personnel. Such personnel can include school resource officers, off-duty police officers, and private security employees. A 2012 Gallup Poll reported

that the majority of Americans surveyed, regardless of political affiliation, believe that placing armed officers at schools is an answer to school shootings (O'Brien, 2012). The National Rifle Association (NRA) has appointed former Congressman and Drug Enforcement Agency head Asa Hutchinson to lead the National School Shield Emergency Response Program ("NRA's response to," 2013). Many people view the NRA as a major political power and as America's leading protector of Second Amendment rights. The NRA has, since its inception in 1871, described itself as the leading firearms education organization in the world (National Rifle Association, 2014). Shortly after the Sandy Hook Elementary School shooting in December 2012, the NRA unveiled its proposal of a program called the National School Shield Emergency Response Program. The NRA's executive vice-president, Wayne LaPierre stated:

I call on Congress today to act immediately, to appropriate whatever is necessary to put an armed police officers in every school — and to do it now, to make sure that blanket of safety is in place when our children return to school in January. Before Congress reconvenes, before we engage in any lengthy debate over legislation, regulation or anything else, as soon as our kids return to school after the holiday break, we need to have every single school in America immediately deploy a protection program proven to work — and by that I mean *armed security*. ("NRA's response to," 2013, p. 8)

LaPierre went on to say that not providing armed security for students makes no sense. He pointed out that communities protect banks, airports, office buildings, power plants, courthouses, sports arenas, the president and members of the legislature with armed

guards ("NRA's response to," 2013, p. 8). It seems reasonable, LaPierre argued, that school children should be afforded the same protection.

Grey (2013) reported several flaws in the NRA's plan. Such flaws included a lack of appropriate funding, which leaves already financially burdened school districts to have to spend additional money, and a lack of a clear vision in regards to training security personnel. While concerns were expressed about the NRA's proposals, the NRA is not the first to state that armed security in schools is necessary. After the Columbine High School shooting in 1999, schools across the U.S. began to investigate the idea. As of 2013, approximately 27% of U.S. schools have daily armed security personnel such as school resource officers (SROs), off-duty police officers, and private security firms in schools on a daily basis (Crews, Crews, & Burton, 2013).

However, some contend that there may be more disadvantages than advantages to placing armed officers in schools (Crews, Crews, & Burton, 2013). The advantages include: a) decrease in public fear; b) increase in public views of safety; c) faster response time to emergencies; d) ability to intervene early to possibly prevent or lessen harm; e) may discourage less motivated possible offenders; and f) bigger revenues for security industry. However, a lengthy list of disadvantages include: a) increased risk for accidents; b) false sense of safety; c) increased potential for civil and/or criminal liability; d) increased access to weapons; e) more access to children; f) increased cost to school districts; g) increased referral to juvenile justice system; h) decreased graduation rates/increased dropouts; i) increased fear and resentment among children; j) possible negative influence on school climate; k) potential diversion of law enforcement

resources; l) insurance and worker's compensation issues; m) potential union conflicts; and n) officer cooperation and morale issues (Crews, Crews, & Burton, 2013) .

Gun Control

The second amendment of the United States Constitution was ratified in 1791 and says, "A well regulated militia, being necessary to the security of a free State, the right of the people to keep and bear arms, shall not be infringed" (Gun control overview, 2013; Mountjoy, 2013; Neily, 2008; U.S. Const. amend. II). The United States comprises less than 5% of the world's population, and owns nearly half of the world's firearms. The U.S. also provides essentially limitless access to dangerous firearms (Collier, 2013). During the 2012 presidential campaign, gun control was not an issue. The Sandy Hook Elementary School shooting in Newtown, Connecticut, put gun control back on the nation's agenda (Dreier, 2013). The people of the United States wanted answers to the unanswerable and an end to school shootings.

An understanding of gun legislation in the United States perhaps can shed some light on the issue of school shootings and why the perpetrators of school shootings had access to their weapons of choice. The National Firearms Act (NFA) was passed in 1934. The NFA restricted the sale of automatic weapons, short-barreled rifles and shotguns, as well as silencers (Mountjoy, 2013), and was designed to cut down on interstate and offshore trafficking of firearms. This legislation also required firearms dealers to be licensed via the Federal Firearms License (FFL) (Mountjoy, 2013).

According to the U.S. Department of Justice (2009):

The NFA was enacted by Congress as an exercise of its authority to tax, the NFA had an underlying purpose unrelated to revenue collection.[sic] As the legislative

history of the law discloses, its underlying purpose was to curtail, if not prohibit, transactions in NFA firearms. Congress found these firearms to pose a significant crime problem because of their frequent use in crime, particularly the gangland crimes of that era such as the St. Valentine's Day Massacre. The \$200 making and transfer taxes on most NFA firearms were considered quite severe and adequate to carry out Congress' [*sic*] purpose to discourage or eliminate transactions in these firearms. The tax has not changed since 1934. (p. 1)

Following the assassinations of President John F. Kennedy, Martin Luther King, Jr., and Robert F. Kennedy, the Gun Control Act of 1968 was passed. This piece of legislation broadened dealer licensing, increased the list of people who could not buy firearms, and banned direct sales of rifles and shotguns by mail order (Mountjoy, 2013; Smith & Ross, 2013). Zimring (1975) reported that the bill was passed to "provide support to Federal, State, and local law enforcement officials in their fight against crime and violence" (p. 133).

Zimring also reported that:

In 1958 Senator John F. Kennedy from Massachusetts, a gun-producing state, proposed a bill to prohibit the importation of firearms originally manufactured for military purposes. This bill did not pass, however Congress did ban the re-importation of those weapons that the United States had sent overseas under its foreign-assistance act. (p.144)

Eighteen years would pass before any other federal legislation addressing gun control would be enacted. In 1986 the Firearms Owners' Protection Act (FOPA) was passed. This legislation eased previous restrictions, including limited sales of long guns

(a category of firearms and cannons with longer barrels than other classes) across state lines, legalized ammunition sales via mail and the transportation of firearms through states where such possession is illegal. Restrictions were also placed on how the ATF could inspect firearms dealers. This law also banned the sale of automatic weapons to civilians (Mountjoy, 2013). Hardy (1986) reported that FOPA was the first comprehensive revision of the federal firearm laws since the Gun Control Act of 1968. This law was viewed as "necessary to restore fundamental fairness and clarity to our Nation's firearms laws" and damned as an "almost monstrous idea" and a "national disgrace" (Hardy, 1986, p. 586). Hardy went on to discuss the reasons why FOPA was considered by some to be bad legislation:

The controversy surrounding FOPA's genesis is commensurate to the legal impact of its provisions. FOPA effectively overrules six decisions of the United States Supreme Court, moots what would have become a seventh, and negates perhaps one-third of the total case law construing the Gun Control Act of 1968. FOPA's impact, however, is not limited to the Gun Control Act, nor even to federal statutes. By expressly exempting interstate transportation of firearms from the reach of many state firearm laws, it affects state proceedings as well. (pp. 586-587)

Another concern is that the law also opened the door for convicted felons who were pardoned or had their records expunged to be able to legally obtain firearms (Brenner, 2008).

The Crime Control Act was passed in 1990 and established drug-free school zones, which banned possession of firearms in designated school zones. The law also

banned the domestic production of certain semiautomatic rifles or shotguns using illegally imported parts (Mountjoy, 2013). This comprehensive law encompassed several aspects of crime not related to school violence such as federal debt collection and prosecution of financial institutions (Peters & Woolley, 1990).

In 1993, after seven years of public debate, Congress passed the Brady Handgun Violence Prevention Act. This legislation was an amendment to the Gun Control Act of 1968. The law required background checks for firearms transfers between FFLs and non-licensed persons (Gun Control Overview, 2013; Smith & Ross, 2013).

The Violent Crime Control and Law Enforcement Act was passed in 1994 and is commonly known as the Assault Weapons Ban. The law prohibited the production, possession and importation of certain semiautomatic rifles and shotguns and restricted the manufacture and sale of firearm magazines with a capacity of 10 rounds or more. The law instituted criteria for defining assault weapons and banned 19 firearms including the AK-47. In 2004 the law expired and Congress did not reinstate it (Mountjoy, 2013).

In 2013, Senator Dianne Feinstein (D-CA) introduced the Assault Weapons Ban of 2013. According to Domenech (2013) this would “mandate something new in American history” (p. 27). He reported that the government could seize private possessions on a mass scale and without compensation for weapons already purchased but are in violation of the new law. However, Feinstein’s bill did allow states and local agencies to use federal grant money to implement voluntary buyback programs (Feinstein, 2013). Critics asserted that this legislation, if passed, could compromise people’s Fourth and Fifth Amendment rights (Domenech, 2013) by infringing on a person’s right not to be subjected to unreasonable searches of their person and property

and seizures of their private property without compensation (Cornell University, 2014a; Cornell University, 2014b). Feinstein's legislation also included the banning of 120 specific guns and would limit the number of features a weapon can have before it was subjected to additional restrictions (Domenech, 2013; Feinstein, 2013). The National Rifle Association (NRA) has maintained that limiting gun ownership infringes on people's rights and makes it harder for them to protect themselves (Smith & Ross, 2013).

Crisis Management and Response

Researchers such as Badzmierowski (2011), Brock, Sandoval, and Lewis (2000), and MacNeil and Topping (2007) have attempted to uncover the key factors in crisis management and response. Brock et al. (2000) defined crises as "sudden, unexpected events that have an 'emergency quality' and have the potential to impact on the entire school community" (p. 14). In school situations MacNeil and Topping (2007) reported that a crisis can be any situation that creates strong emotional reactions that interfere with a person's ability to perform in a given situation.

According to Badzmierowski (2011), "education institutions should train staff to respond appropriately in the event of a crisis situation" (p. 29). Kravitz and Peluso (1986) also reported that effective crisis management should include the development of specialized skill sets such as organizing employees and managing resources effectively during situations of great stress. Relatedly, Eaves (2001) reported that school districts should require each school to have a crisis response plan as part of effective planning and administration. There are several factors that Paton as reported by MacNeil and Topping (2007) stated are necessary in developing effective crisis management plans:

- School senior management should be committed to the process (p. 79).

- Resistance to plan development should be addressed before beginning the planning process (p. 79).
- The plan should be developed in a consultative, participative manner to ensure its realism and the commitment to act (p. 80).
- The individuals and agencies who will be involved in implementation should be involved in plan development (p. 80).
- The plan should be accompanied by a commitment of resources (p. 80).
- The plan should focus on realistic events (p. 80).
- A risk assessment should be undertaken to aid the planning process (p. 80).
- The plan should address events involving multiple casualties and fatalities (p. 80).
- The plan and the training program it inspires should focus on those common key characteristics and common key problems of trauma event and tasks (p. 80).
- Procedures should be adapted from applications used for 'routine' emergencies (p. 80).
- Organizational leaders should be aware of liability issues, response plans, their role during and after the incident, and the support resources available (p. 80).
- The plan should address and define the tasks and responsibilities of all positions and all organizations likely to become involved (p. 80).
- The plan should identify positions of responsibility rather than people (p. 80).
- The plan should be based on appropriate expectations of how people are

likely to act and react (p. 80).

According to Estep (2013), The Virginia Department of Education stated that “a crisis management plan details how to identify, confront and resolve the crisis, restore equilibrium and support appropriate adaptive responses” (p. 14). This may be a difficult task if the administration is not committed to school safety. Estep went on to say that “the most important considerations for a school district are the health, safety, and welfare of students and staff” (p. 13).

Strong community relationships may be a valuable resource for schools in terms of school safety. Estep (2013) emphasized the role that communities should play in the development of school crisis management plans. She stated that “the crisis-planning process forces school districts to bring community leaders together to work on the plan with school personnel, and that process provides district personnel an opportunity to build long-lasting relationships with community leaders” (pp.14-15).

In addition to the suggestions by MacNeil and Topping (2007) for developing a crisis plan, Estep (2013) also laid out guidelines for developing a crisis plan. She recommended the following steps for developing a plan: (a) form a broad-based committee, (b) define the kind of crisis included in the plan, (c) conduct an internal and external assessment of current safety, (d) create the crisis plan, (e) secure board approval, (f) create a file of at-your-fingertips information, (g) distribute the plan widely, (h) select the spokesperson and the crisis team leader, (i) train the staff at both the district and building level, (j) annually retrain the staff, and (k) assess and revisit the plan.

Schonfeld et al. (2002) also reported that “the crisis team should review and update the school crisis plan annually and discuss it at least briefly with all staff” (p. 69). Safe schools engage in the following behaviors:

- “Promote open communication among students, staff and parents”;
- “Teach and reinforce personal responsibility and pro-social behaviors”;
- “Provide support for individuals in crisis.” (Schonfeld et al., 2002, p. 68)

However, Pearson and Clair (1998) reported that “if executives do not believe their organization vulnerable to crises, they will not allocate resources to prepare for that potential” (p. 67). These resources may include time and money.

Although schools cannot predict the exact type of crisis that may occur, it is important to establish effective communication, which involves extensive planning, preparation and training (Badzmierowski, 2011). According to Pearson and Clair (1998), “crisis management efforts will be more successful if information is disseminated quickly, accurately, directly, and candidly to critical stakeholders” (p. 73). It seems clear that communication during a crisis should be as simple and clear as possible. However, such communication should also address four issues: keeping oneself safe, assessing the situation, summoning assistance, and making the environment as safe as possible (Badzmierowski, 2011). Crisis response measures that are knowledge-based and skill-based are important when responding to the immediate situation. This knowledge and skill base is also important for a prompt recovery and to be better able to return to a normal environment (Cornell & Sheras, 1998; Hale, Dulek & Hale, 2005). According to Schonfeld et al. (2002), members of a crisis team also have an obligation to provide accurate information to staff, students, parents, and the media. Information may include

determining the type of response effort needed, identifying necessary support services, and stifling rumors. Stein (2006) stated that “it is in the best interests of organizations faced with a crisis situation to respond swiftly, proactively, and as openly and honestly as possible” (p. 101).

The shooting incident in September 2013, at the Navy Yard in Washington, D. C., brings to light another communication issue – social media. Heverin and Zach (2012) stated that “response agencies and the news media may not even be the preferred source of crisis-related information for some; many citizens now actively provide crisis-related information to each other through social media tools” (p. 34). This same shooting incident is an example of the use of social media tools such as Twitter and Facebook as a means of communicating information during a crisis situation. Many people directly involved in the situation were reporting events through these media avenues as they happened.

Social media tools such as those mentioned above may be used when implementing a crisis plan. These tools can be quick ways to inform people of a crisis situation and may be able to lessen the time it takes to activate a crisis plan in the event of an emergency. Although the implementation process of successful crisis management plans takes hours of planning and practicing by emergency personnel (Cornell & Sheras, 1998; Larson, Metzger, & Cahn, 2006), social media tools may be able to be used when activating the plan in an actual emergency.

Post-crisis measures need to be developed in as thoughtful a manner as that which is dedicated to planning for prevention and for immediate crisis response. According to the Oklahoma Department of Civil Emergency Management (1996), the response to the

Oklahoma City bombing on April 19, 1995, was deemed successful because of interagency planning, training, and interaction that led to a joint effort in responding to the crisis. However, problems were reported in the overall response efforts. Such problems included tracking and storing donated goods, jamming of telephone service, communicating through outdated systems, identifying workers and volunteers, operating a triage center, and accounting for on-call personnel.

The crash of United Airlines Flight 232 on July 19, 1989, in Sioux City, Iowa, is another example of a large scale crisis that was handled effectively. Larson, Metzger and Cahn (2006) reported the response effort was successful due to an integrated emergency response plan. The authors stated that:

A well-thought-out and rehearsed response plan saved lives. In 1987, Sioux City officials decided to integrate their disaster plan among various rescue agencies to make a living plan they updated frequently to address problems and to incorporate innovations identified through technology, practice, and experiences responding to incidents. All the participants rehearsed the plan once a year, using a different disaster scenario each time. According to rescuers, the yearly drill enabled them to discern the weaknesses in their coordination efforts and also helped them to know one another. This process established a level of trust among the different branches, which many believe helped them to respond effectively when Flight 232 crashed. Rescuers said they were trained so well and were so familiar with the plan that they never needed to refer to it during the response. (pp. 491-492)

This type of training and response could be useful to school districts when training staff for active shooter incidents. Training with other community agencies that would be responding to an incident may help teachers feel better prepared to respond appropriately in the face of an active shooter incident. Mistakes in crisis management can be highly evident and very distressing to school personnel. However, realizing and analyzing the mistakes and problems that occurred can help school officials better prepare for future crises (Cornell & Sheras, 1998).

Adams and Kritsonis (2006) reported that the safety of all individuals involved with school activities is a matter of daily concern; therefore, schools cannot afford to ignore the necessity of crisis preparedness. Although preparing for all possibilities is impossible, crisis preparedness efforts put schools in a better position to respond effectively to a crisis (Brock et al., 2000). Pearson and Clair (1998) reported that “individuals in ‘crisis-prone organizations’, compared to ‘crisis-prepared organizations’, are seven times as likely to use defense mechanisms, such as denial, disavowal, fixation, grandiosity, and projection” (p. 62). Pearson and Clair (1998) also reported that “by thinking about and practicing responses to various incidents, organizations build agility” (p. 70). This statement aligns with the perspective of Dwyer (2009) who reported that after the death threat incident at St. Xavier University in 2008, the University realized “the need for ongoing professional development for administrators, faculty and staff concerning emergency management situations” (p. 40).

Dwyer reported that on the morning of April 10, a custodian at St. Xavier found a message in a university restroom that read, “Be ready to die 4/4” (p. 38). A few days prior to this discovery, university authorities found similar threats in the same location.

The university acted swiftly in activating their crisis management plan. This consisted of convening all members of the crisis management team and making the decision to evacuate campus for 24 hours. The crisis team worked in conjunction with the Chicago Police Department to secure the campus and investigate the threat.

Crisis plans are an important part of crisis preparedness and safety. However, the process by which such plans are implemented is equally important. The qualities of leadership, teamwork, and responsibility are essential ingredients for a successful outcome to a crisis situation (Cornell & Sheras, 1998; Trump, 2009).

Student Achievement

There is growing concern among educators, parents, and local, state, and federal agencies regarding school violence and its impact on student learning (Chen & Weikart, 2008; Cornell & Mayer, 2010; Grogger, 1997; Gronna & Chin-Chance, 1995; Hernandez & Seem, 2004; Johnson, Burke, & Gielen, 2012; Milam, Furr-Holden & Leaf, 2010; Mooji & Fettelaar, 2012). As accountability and test scores continue to drive K-12 education across the U.S., educators are paying more attention to school violence and its relationship to student achievement (Chen, 2007; Chen & Weikart, 2008; Patton, Woolley, & Hong, 2012; Ripski & Gregory, 2008). Lee and Byrk (1989) found that there is a link between school environment, student performance and behavior at school.

According to Mooji and Fettelaar (2012) in order for students to succeed in school, they should believe that their schools are secure and safe places where they can engage in continuous learning without fear of being confronted with safety issues such as bullying or physical abuse. Students who are victims of violence at school have a harder time achieving academic success (Johnson et al., 2012; Grogger, 1997; Gronna & Chin-

Chance, 1995). Safe schools are essential in order for students to focus their energy on learning activities (Chen & Weikart, 2008). According to Hanson, Austin, and Lee-Bayha (2003), “Efforts to reduce weapon possession and improve overall school security are not only beneficial to student safety and well-being – the most important outcome of such efforts – they could translate into improvement in test scores” (p. 50).

Glick (1985) stated that “a person’s environment is a determinant of behavior” (p. 602). Students who are withdrawn, show little interest in school, and exhibit disruptive behavior have lower academic achievement than students who do not display these traits (Gronna & Chin-Chance, 1995; Ripski & Gregory, 2009). Students who experience repeated failure academically often find ways to act destructively toward school and, in extreme cases, to seek ways of destroying the school environment through a variety of means, including the use of violence (Zyromski, Bryant, & Gerler, 2009).

Chen (2007) stated that “School disorder affects student achievement negatively” (p. 27). Safety issues can affect student achievement by creating situations that take away from learning. Such situations shift students’ attention from learning to concerns about their safety (Bowen & Bowen, 1999; Casella & Burstyn, 2002; Gronna & Chin-Chance, 1999; Hanson et al., 2003). Nationwide, 27% of teachers said that student discipline issues in the classroom keep them away from teaching a good portion of the time (Gottfredson et al., 2000).

Students who perceive their school as a hostile environment may exhibit negative behavior and lower academic achievement (Ripski & Gregory, 2009). Students who perceive that their schools are not safe may be more likely to have high absenteeism. Students who do not attend school regularly are missing opportunities to increase student

achievement (Bowen & Bowen, 1999; Sorenson & Hallinan, 1977). Gronna and Chin-Chance (1999) found that reading and math scores were higher in schools that had fewer suspensions for violations such as assaults, weapon possession and drug possession.

Chen and Weikart (2008) reported that students who are fearful about attending school and exhibit avoidance behavior can be negatively impacted in the area of participation in school activities. This leads to a decrease in student learning.

Additionally, students who are exposed to violence in their communities are more likely to have lower academic achievement than students who are not exposed to violence in their communities (Johnson et al., 2010; Lee & Byrk, 1989). Children who live in situations where violence in their homes and/or communities is prevalent may be more likely to have lower achievement scores than students who do not live in such situations (Hanson et al., 2003). Furthermore, Johnson et al. (2010) stated that “when students are fearful and constantly worried about their safety, focus on academics is compromised” (p. 465). Ripski and Gregory (2009) found that academic success may be lessened when students feel that their school is not safe or when they feel threatened. However, students who live in communities and attend schools in which they feel safe are more likely to attain higher academic achievement (Lee & Byrk, 1989). Ripski and Gregory (2009) report that:

School officials should be conscious of how rules are made and enforced, and monitor students who may be experiencing unfair targeting by their peers and teachers. Officials should also consider that how schools perform on achievement indicators may somewhat reflect students’ collective experience of the school

climate as hostile. Thus, creating schools in which students feel supported and safe becomes especially important for student success. (p. 371)

Learning is more likely to occur in safe environments, especially in perceived safe environments (Chen, 2007; Chen & Weikart, 2008). Academic success is more likely to occur in schools where students feel safe and secure (Hanson et al., 2003). This could mean that students may perform better academically in familiar surroundings that they believe are safe. Moreover, Lee and Byrk (1989) found that there is a link between school environment, student performance, and behavior at school.

School Climate

In addition to the role that safe, secure environments play in improving the likelihood of improved student achievement, the role of school climate and its relationship to school violence should not be overlooked. The beliefs regarding school safety may be measured by the perceptions of safety among students, faculty, and staff. These perceptions can reflect the views and experiences of the whole school community (Bosworth et al., 2011). Hanson et al. (2003) stated that “it is intuitively obvious that violence, crime, antisocial behavior, and other types of social disorganization on school campuses can have adverse consequences for student learning” (p. 47). School climate is the core of a school (Stewart, 2007). The effectiveness of classroom instruction is related to school climate, and the climate of a school can directly affect student learning (Shields, 1991). As reported in Johnson (2009), “Statistics report that 63 out of every 1000 students in U.S schools are the victims of violence at school” (p. 452). Hernandez and Seem (2004) asserted that “school violence is a reflection of the school climate” (p. 256). Welsh (2000) stated that:

Schools provide a central venue for social bonding (or failure). Students with poor academic or interpersonal skills are likely to experience failure and alienation in school. They do not become attached to school because social interaction is unrewarding. They do not become committed to educational goals because they view them as unrealistic. They do not become involved in conventional social activities either because they are denied access to them or because meaningful activities are lacking. They do not come to believe in conventional rules because they do not perceive meaningful present or future rewards for compliance. (pp. 91-92)

Studies have found that there is a relationship between school climate and school violence (Centers for Disease Control and Prevention, 2013b; Hernandez & Seem, 2004; Johnson et al., 2012). Johnson also asserted that the school setting comprises both the social and physical environment. In schools with higher incidents of violence, students do not have the needed time to concentrate on academic activities. Violent situations that students witness or are involved in take away from their time spent on academics (Prothrow-Stith & Quaday, 1996).

Johnson et al. (2012) found six elements of the school environment that influence school violence. The areas are: (a) student behaviors; (b) behavior norms; (c) relationships with school staff; (d) learning environment; (e) school safety; and (f) community environment. One finding from this study was that students did not differentiate between violence occurring at school and violence occurring in the community. Schools are rooted in communities, so in addition to school characteristics, high levels of crime, poverty, and unemployment in the community have been associated

with high levels of violence in schools (Welsh, 2000). These findings could mean that schools may need to broaden their scope of violence prevention programs and focus not only on violence that occurs at school, but incorporate community violence issues into school violence prevention programs (Johnson et al., 2012).

Hernandez and Seem (2004) share similar views of school climate. They reported that school climate has four key components: (a) the relationship a student has with her or himself; (b) the relationship a student has with his or her peers; (c) the relationship a student has with his or her parents and community; and (d) the relationship a student has with his or her teachers, school staff and administrators. Students who are committed to their schoolwork, who have high expectations for academic achievement, and who feel a sense of connectedness to school are less likely to commit an act of school violence (Furlong & Morrison, 2000; Griffith, 2000).

Establishing protocols such as codes of conduct and implementing rules is important in creating safe school climates. It is also important that the implementation of codes and rules be clear, fair, and consistent (Furlong & Morrison, 2000; Gottfredson, 1990; Hernandez & Seem, 2004; Welsh, 2000). In addition to rules and codes of conduct, Peterson and Deal (1998) point out that having rituals and traditions can also help to create a positive school climate. Rituals and traditions can include pep rallies, jeans and t-shirt days, and celebrating student and staff successes. Welsh (2000) reported that schools with the worst discipline problems shared some of the same characteristics: (a) rules that were unclear and unfair; (b) rules that were inconsistently enforced; (c) use of ambiguous or indirect responses to student behavior; (d) teachers and administrators who did not know the rules or disagreed on responses to student behavior issues; (e)

discipline issues being ignored; and (f) students who did not believe in the legitimacy of the rules. Bosworth et al. (2011) reported that students feel safer when they perceive that their school has a clear and consistent discipline system, a timely and effective response to threats, and a caring atmosphere.

In order to create safer communities, urban planners and criminologists have worked together to investigate the relationship between physical environments and violence. The term Crime Prevention Through Environmental Design (CPTED) is used to describe this relationship (Cozens, 2007; Centers for Disease Control and Prevention, 2013a). According to the CPTED approach, the “proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime and an improvement in the quality of life” (Centers for Disease Control and Prevention, 2013a, p. 1). According to the Centers for Disease Control and Prevention, the ideas of CPTED can possibly help schools by:

- (a) creating a warm and welcoming environment;
- (b) fostering a sense of physical and social order;
- (c) creating a sense of ownership by students;
- (d) sending positive messages to students;
- (e) maximizing the presence of authority figures;
- (f) minimizing opportunities for out-of-sight activities; and
- (g) managing access to all school areas. (p 2)

Student concerns about being attacked at school can detract from a positive school environment (Scheckner, Rollins, Kaiser-Ulrey, & Wagner, 2002). According to Robers, Kemp, and Truman (2013), 5% of students in urban school settings were more fearful of attacks or harm at school compared to 3% of students in rural or suburban school settings. Learning could be inhibited if students are afraid of being attacked at school. Robers et

al. (2013) reported that there were instances where students went to school but avoided some school activities or specific places within the school for fear of being attacked.

Students who perceive that their school environment is dangerous have lower academic performance (Goldstein, Young, & Boyd, 2008). Research conducted by Astor, Meyer, and Behre (1999) found that areas within schools such as hallways, playgrounds, restrooms and cafeterias are more likely to be sites of violence. Bosworth et al. (2011) reported that in areas where there is no adult supervision, some students may not feel safe. This could be attributed to less supervision by administrators and teachers in these areas. A study conducted by the Centers for Disease Control and Prevention (2013b) found that:

Approximately 40% of public high schools reported to police at least one incident of violence during the 2009-2010 school year. Of these public schools, approximately 10% reported at least one serious violent incident during the same time period. A nationwide survey of high school students in the United States found that 5.4% of students carried a weapon on school property in the 30 days preceding the survey. The same survey found that 5.9% of students missed school in the 30 days preceding the survey because they feared for their safety.

(p. 1)

School security encompasses several areas such as the physical features of schools and security personnel. Advocates of school safety believe that school districts should design their schools with safety in mind and employ security personnel (Bomber, 2013; Erickson, 2010; Trump, 2009). However, some contend that there may be some disadvantages to placing armed security in schools (Crews, Crews, & Burton, 2013).

When school shootings occur, the issue of gun control is brought to national attention by the media, policymakers and community leaders (Dreier, 2013). An understanding of gun legislation in the United States is an important component to understanding school shootings and how perpetrators may have gained access to their weapons. Another important issue regarding school shootings is crisis management and response. Crisis management plans can play an important role in handling a crisis situation (Adams & Kritsonis, 2006; Badzmierowski, 2011; Eaves, 2011). When school districts train personnel to respond appropriately to a school shooting, loss of life may be minimized (Cornell & Sheras, 1998; Estep, 2013; MacNeil & Topping, 2007; Trump, 2009).

Violent incidents in schools can have a negative impact on student achievement (Goldstein, Young, & Boyd, 2008). The Centers for Disease Control and Prevention (2013b) reported that during the 2009-2010 school year 40% of public schools surveyed stated they reported to police an incident of violence with 10% reporting at least one serious violent incident. This same survey revealed that 5.4% of students carried a weapon to school within 30 days of the survey. Robers et al. (2013) reported that some students were fearful of engaging in school activities and avoided certain places on campus.

Theoretical Foundations

There has not been much research conducted related to teacher preparedness for school shooting incidents. However, there has been some research conducted that focused on crisis management and its relationship to emergency personnel (Brock, Sandoval, & Lewis, 2000; Larson, Metzger, & Cahn, 2006; MacNeil & Topping, 2007; Pearson & Clair, 1998). This section of the literature review will explore Bandura's

Theory of Self-Efficacy and other researchers' findings that relates to teachers' perceptions of their ability to respond to an active shooter incident. In addition, this section of the literature review will also discuss the limited literature related to Emergency Management Theory. Emergency Management Theory is an emerging theory that has its roots dating back to the 1940s and 1950s civil defense era. The literature provides a theoretical framework from which to initiate the current study.

Theory of Self-Efficacy

Research in education regarding self-efficacy has primarily focused on academic performance (Bandura, 1997; Zimmerman, 2000). However, self-efficacy in crisis situations may be relevant to the field of education because of past incidents of school violence including school shootings. Teachers who feel confident (i.e., have high self-efficacy) in their ability to respond effectively to a shooting incident may be more effective in protecting themselves and the students in their care.

Researchers have reported that self-efficacy is related to issues of self-control, response to failure, and problem solving skills (Bandura, 1986; Gist & Mitchell, 1992; Hysong & Quiones, 1997). According to Cherian and Jacob (2013), self-efficacy is important in influencing a person's behavior. It is reasonable, then, to conclude that if teachers feel inadequate to handle an active shooter incident, their safety and the safety of their students may be at risk. Bandura (1997) reported that:

People's beliefs in their efficacy have diverse effects. Such beliefs influence the courses of action people choose to pursue, how much effort they put forth in given endeavors, how long they will persevere in the face of obstacles and failures, their resilience to adversity, whether their thought patterns are self-

hindering or self-aiding, how much stress and depression they experience in coping with taxing environmental demands, and the level of accomplishment they realize. (p. 3)

Self-efficacy is also tied to goal setting (Sitzmann & Yeo, 2013; Vancouver, More, & Yoder, 2008), and people who have a high level of self-efficacy tend to set higher, more challenging goals for themselves (Bandura 2012). Graham and Weiner (1996) stated that self-efficacy is a good way to predict behavioral outcomes when compared to any other motivational concept. This could mean that teachers with higher levels of self-efficacy set goals for themselves regarding knowledge of school safety procedures and take seriously the responsibilities they have to protect themselves and their students. The decisions they make may mean the difference between life and death for themselves and their students. Shunk (1995) reported that:

Self-efficacy is not the only influence on behavior. High self-efficacy will not produce a competent performance when requisite *knowledge* and *skill* are lacking. In this instance, *a sense of self-efficacy for learning* is beneficial because it motivates individuals to improve their competence. *Outcome expectations*, or beliefs concerning the probable outcomes of actions, are important because people strive for positive outcomes. Outcome expectations and self-efficacy often are related. Efficacious learners expect and usually receive positive outcomes for their actions. (p. 2)

Thus, if teachers have a high sense of self-efficacy because of the training they receive in order to respond to an active shooter incident, they should be better able to think clearly and quickly in order to respond effectively. Shunk's statement may mean that when teachers receive useful and effective training for responding to active shooter incidents,

they are more likely to believe that they are prepared to respond effectively to an incident. Another factor that may affect teacher's self-efficacy is their perception of their principal's ability to lead effectively. Principals who impart a common purpose among staff and keep student misbehavior to a minimum have schools in which teachers feel a greater sense of efficacy (Tschannen-Moran & Hoy, 2007). If teachers perceive that their principal is prepared to effectively handle school crises in general, and a school shooting in particular, then their perceptions of their ability to respond effectively may be increased.

Emergency Management Theory

The theory of emergency management is evolving, and researchers are striving to develop a solid theory to increase the effectiveness of emergency management operations. Currently, there is conflict among researchers as to what should be included in emergency management theory and what constitutes emergency management operations (McEntire, 2004; McEntire & Marshall, 2003; Rubin, 2004; Sementelli, 2007; Templeton, 2008; Tierney, 2007; Turner, Glantz, & Gall, 2013; Waugh & Streib, 2006). Waugh and Streib (2006) reported that:

Emergency management is a broader set of functions that go beyond search and rescue, emergency medical services, temporary shelter and feeding, and restoring lifelines. Emergency management also includes: (1) hazard mitigation to prevent or lessen the impact of disaster, such as building levees or moving people out of floodplains; (2) disaster preparedness, such as emergency planning and training; (3) disaster response activities, such as conducting search and rescue activities;

and (4) disaster recovery, usually meaning the restoration of lifelines and basic services. (p. 131)

Emergency management has been progressing and becoming more of a collaborative enterprise since the 1940s and 1950s civil defense era (Waugh & Streib, 2006). It is a fairly new profession and scholarship is lacking. The field of emergency management is suffering from an identity crisis as researchers try to develop a theory that is applicable to all types of emergencies (Crews, 2001). Frustration exists among researchers because although they are producing significant information, the field all in all remains in its early stages (Sementelli, 2007).

According to McEntire (2004), “emergency management still retains vestiges of the past course. But it is, nonetheless, dramatically different than it was in prior years” (p. 1). There are many aspects of emergency management theory that need to be explored, and the knowledge base is growing (McEntire, 2004; Waugh & Streib, 2006). The knowledge base that McEntire and Waugh and Streib refer to is an increase in disaster scholarship and research in emergency management. Ideas about the causes of disasters have shifted, and researchers are learning about the many variables that affect emergency situations (Crews, 2001; McEntire, 2004; McEntire & Marshall, 2003; Sementelli, 2007).

McEntire and Marshall (2003) cited 10 obstacles to the development of emergency management theory. These obstacles are due to emergency management professionals’ inability to agree on what the following questions mean:

- “What is disaster?” (p. 5)
- “What is emergency management?” (p. 5)
- “What hazards should we focus on?” (p. 5)

- “Should we continue to give preference to the concept of hazards?” (p. 6)
- “What variables should be explored in academic research?” (p. 6)
- “What factors should be incorporated into academic studies?” (p. 6)
- “What phrases should be given priority?” (p. 6)
- “What disciplines should contribute to emergency management?” (p. 7)
- “What paradigms should guide our field?” (p. 7)
- “What is the proper balance for knowledge generation?” (p. 8)

Due to the different types of emergencies that may occur, emergency management theory should include all types of situations regardless of their nature (Crews, 2001; McEntire, 2004; Sementelli, 2007). A single theory may be beneficial if it encompasses a broad array of circumstances. However, it could be detrimental if it is too narrow in scope (McEntire, 2004; Sementelli, 2007). Rubin (2004) emphasized the need for research to increase the understanding of :a) the basic principles and practices of emergency management, b) the relationship of emergency management and homeland security, and c) broader context in regards to policy dimensions. McEntire (2004) asserted that all scholars should strive for the emergence of a solid, well-defined emergency management theory if policies are to be enacted.

If specific research is available with regard to crisis management in a school setting, school districts may be more willing to develop, implement, and practice crisis plans. This could possibly mean that teachers may increase their confidence to respond effectively in an active shooter incident. In addition to having a crisis management plan in place and taking steps to prevent school shootings, schools should be familiar with the research regarding emergency management practices.

Pertinent Research and Professional Perspectives

The literature regarding school shootings and school shooters is abundant (Ferguson et al., 2011; Fox & Harding, 2005; Hong, Cho, Allen-Meares, & Espelage, 2011; Leary, Kowalski, Smith, & Phillips, 2003; Langman, 2009; Muschert, 2007; Newman, 2004; O'Toole, 1999; Shermer, 2013; Thompson & Kyle, 2005; Trump, 2009; Verlinden, Hersen, & Thomas, 2000; Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002). Also, there has been much research done in the area of school violence prevention training and programs (Farris & Tracy, 2013; Shuster, 2009; Vossekuil et al., 2002; Wilson-Simmons, Dash, Tehranifar, O'Donnell, & Stueve, 2006). However, the literature is deficient regarding teachers' perceptions of their abilities to respond to active shooter incidents. This section of the literature review addresses research and expert perspectives on the characteristics of school shooters and preparedness for and prevention of school shootings. It also includes a timeline of school shootings that have occurred in the U.S. and around the world over the course of several decades.

Characteristics of School Shooters

Identifying characteristics of school shooters can be difficult because there is little information regarding specific characteristics exhibited by school shooters (O'Toole, 1999; Vossekuil et al., 2002). This lack of information is due to the fact that school shootings are rare occurrences, and many of the shooters died during their attacks leaving few school shooters to be interviewed (Ferguson et al., 2011). According to a 1999 FBI report on school shooters compiled by O'Toole, profiles of school shooters did not exist. O'Toole also reported at that time that there was no checklist of danger signs for shooters. In addition to the above report, other researchers have also subsequently

dispelled the notion that there is a specific profile for a school shooter (Ferguson et al., 2011; Hong, Cho, Allen-Meares, & Espelage, 2011; Leary et al., 2003; Muschert, 2007; Thompson & Kyle, 2005). However, many researchers agree that there may be similarities shared by some school shooters. Such emerging characteristics include male gender, Caucasian race, substance abuse, history of being bullied, paranoid view of the world, hostility and difficulty controlling anger, depression, family dysfunction, narcissism, lack of empathy, feelings of entitlement, poor coping skills, exaggerated need for attention, inappropriate humor, lack of trust, and preoccupation with weapons (Brown et al., 2009; Hong et al., 2011; Ferguson et al., 2011; Langman, 2009; O'Toole, 1999; Shermer, 2013).

Mongan, Smith-Hatcher, and Maschi (2009) reported three factors that almost every school shooter had in common. These factors are marginalization, access to guns, and masculinity. These three factors, according to the authors, may help explain the turmoil that school shooters may face before bringing a gun to school. Marginalization, similar to bullying, is the attempt by one person to confine another socially and push them outside their comfort zone regarding social significance. Some school shooters had easy accessibility to guns while others had to commit murder in order to get a gun or had to obtain them illegally (Mongan et al., 2009). Other school shooters used other people to buy their weapons, as in the Columbine shooting (Cullen, 2009). Kimmel and Mahler (2003) reported that some of the school shooters were subjected to attacks on their masculinity. Watson (2007) reported that there is an unwritten code of masculinity to which boys are expected to conform in society. She reported that the code is a set of behaviors such as aggression and lack of emotion, and that boys are expected to be

powerful and controlling. If they do not conform to these cultural norms, they may be mocked and ridiculed.

This information contradicts research by psychiatrist Park Dietz into the Columbine shootings; he stated that there are twelve signs a person may exhibit when contemplating mass murder. These signs are:

(1) threats, (2) allusions to violence, (3) excessive or intimidating references to mass murder or shooting sprees - real or fictional, (4) excessive interest in the police or military, (5) intimidating weapons comments, (6) inappropriate communication toward peers or supervisors, (7) documenting or stalking potential victims, (8) anger, (9) depression or suicidal thoughts, (10) paranoia, (11) repeatedly accusing other people of causing one's problems, and (12) unreasonable complaints. (Kurtis, 2002, [DVD])

The documentary also reported that Columbine shooter, Dylan Klebold, exhibited eleven of the twelve warning signs, with depression being a key factor, and that his accomplice, Eric Harris, exhibited ten of the twelve warning signs, with anger being most prominent. School personnel may want to use caution when applying these warning signs to a particular student or group of students. There may be a risk of "over-identifying" a student or mistakenly identifying a student as violent (Ferguson et al., 2011; O'Toole, 1999).

Langman (2009) reported that "school shooters are disturbed individuals...with serious psychological problems" (p. 15). He explains that although factors such as bullying, lack of social skills and playing violent video games may have played a role in the shootings, it is not the reason why school shootings occur. Langman stated that the

shooters in his book (Eric Harris, Dylan Klebold, Evan Ramsey, Michael Carneal, Andrew Golden, Mitchell Johnson, Kip Kinkel, Andrew Wurst, Jeffery Weiss, and Seung Hui Cho) were all suffering from psychological problems, which were the reason for the shootings. These psychological problems included schizophrenia (Michael Carneal, Andrew Wurst, Kip Kinkel, and Seung Hui Cho) and psychosis (Eric Harris, Dylan Klebold and Andrew Golden). He also reported that Mitchell Johnson, Evan Ramsey, and Jeffrey Weiss were severely traumatized (Langman, 2009).

Although research indicates that no specific profile exists, school personnel may be able to use the available information to guide their decision making when training staff for an active shooter incident. Trump (2009) stated, “People will always be the weakest link in school security and emergency plans. The question is, how weak will we allow them to be?” (p. 28). School districts that are pro-active with regard to identifying “at-risk” students may be better able to intervene on a student’s behalf and possibly prevent a shooting incident from occurring.

School Shootings

A significant increase in school shootings occurred during the 1990s (Ferguson et al., 2011; Flores de Apodaca, Brighton, Perkins, Jackson, & Steege, 2012; Thompson & Kyle, 2005). Although school shootings are a rare occurrence, when a shooting happens, it can be devastating to a school and the surrounding community (Geddes, 2009; Muschert, 2007). As cited by Flores de Apodaca et al. (2012), Verlinden, Hersen, and Thomas reported that “of all the fatal forms of school-based violence, shootings are the most frequent, dramatic incidents, and account for the highest number of deaths” (p. 365).

Muschert (2007) reported that there are five types of school shootings. These types are:

- rampage shootings in which the perpetrator is a “member or former member, such as a student, former student, employee or former employee”. The target of the shooting is a “school or group of students selected for symbolic significance, often to exact revenge on a community or to gain power”. Examples include the “1966 Texas tower shootings”, “the 1999 Columbine High School shootings in Littleton, CO”, and the “2007 Virginia Tech shootings” (p. 62);
- mass murders in which the perpetrator is a “non-member, typically adult, who is not a former student or employee”. The target of the shooting is a “school or group of students for symbolic significance, often to gain power”. Examples include the “1927 Bath school disaster in Bath, MI”, the “1989 Montreal massacre”, and the “1996 Dunblane massacre in Dunblane Scotland” (p. 62);
- terrorist attacks in which the perpetrators are “individuals or groups engaging in violent acts to advance political or ideological goals”. These shootings are “politically motivated attacks on a school or group of students selected for their symbolic importance”. Examples include the “1974 Ma’alot terrorist attack in Ma’alot, Israel”, and the “2004 Beslan terrorist attack in Beslan, Russia”;
- targeted shootings in which the perpetrator is a “member or former member, such as a student, former student, employee or former employee. Revenge is targeted at individuals for some real or perceived maltreatment”. Examples

include the “1992 Tilden High School shooting in Chicago, IL”, and the “2003 Red Lion shooting in Red Lion, PA” (p. 62);

- government shootings in which the perpetrator is a “government agency such as the military or police. They are responding to “student protests or riot behavior”. This is considered a “response to a crisis of government legitimacy”. Examples include the “1968 shootings at South Carolina State University” and the “1970 shootings at Kent State University” (p. 62).

There have been several factors reported in the literature as possible reasons for school shootings. These include school climate, family dynamics and mental health issues of perpetrators (Brown et al., 2009; Fox & Harding, 2005; Leary et al., 2003; Thompson & Kyle, 2005). Muschert (2007) reported that “A variety of causes may contribute to school shootings, and therefore no single dynamic is sufficient to explain all, or even a subset, of such events” (p. 67). This could mean that school shooters may experience multiple factors that ultimately lead them to commit a school shooting. In 2005 Fox and Harding reported that organizational deviance, which would fall under the umbrella of school climate, played a role in two school shootings.

These shootings occurred in 1997 at Heath High School in West Paducah, Kentucky, and in 1998 at Westside Middle School in Jonesboro, Arkansas. The authors described organizational deviance as “events that are created by or in organizations that do not conform to an organization’s goals or expectations and produce unanticipated and harmful outcomes” (p. 70). In these two instances, Fox and Harding attributed a lack of communication between schools within the district as a factor in the shootings for not recognizing the shooters as troubled and potentially dangerous students. They stated that

administrators within the district did not communicate with each other regarding the shooters' behavioral issues, and the opportunity to intervene on these students' behalf was missed.

School shooters such as Sandy Hook Elementary School shooter Adam Lanza, Pearl High School shooter Luke Woodham, and Red Lake High School shooter Jeff Weise murdered family members before going to the schools and committing their shooting rampages (Dodson, 2009; Sallee, 2005; Shermer, 2013). Columbine shooters Dylan Klebold and Eric Harris both received counseling for depression (Hong et al., 2011; Kurtis, 2002). Family dysfunction and mental health issues may have played a role in these tragic events. Training teachers to be aware of the warning signs troubled students may exhibit could be beneficial in helping to identify potential shooters and stopping an incident before it occurs.

Another reported link to school violence is the culture of honor. The culture of honor is described as a belief that violence is an acceptable solution to defend or restore a person's reputation, family or property (Brown et al., 2009). The states in the southeastern and western regions of the U.S. are considered to be culture of honor states as is the District of Columbia (Brown et al., 2009; McCabe & Martin, 2005). As cited by McCabe and Martin (2005), Curran and Renzetti reported that attitudes and social expectations instilled in individuals from these regions of the U.S. favor the use of violence to solve conflict. Kimmel and Mahler (2003) reported that more than 70% of school shootings occurred in states in which the culture of honor disposition is prevalent. A study of 37 school shootings from 1974 to 2000 revealed that 41% of school shootings occurred in the western region of the U.S. and 36% of school shootings occurred in the

southeastern region of the U.S. Eighteen of the twenty-seven culture of honor states have had a school shooting take place (Brown et al., 2009). Brown et al. (2009) also reported:

Knowledge of how the culture of honor plays a role in school violence could also reveal ways in which educators and policymakers might identify at-risk students and understand how to address the unique psychosocial issues influencing them.

Armed with such knowledge, society might keep the list of school shootings from growing at its present rate. (p. 1405)

Prevention of School Shootings

School personnel are under pressure to reassure the public that their schools are safe (Cornell, Sheras, Gregory, & Fan, 2009). Although some schools have experienced a school shooting, that does not mean that these schools are unsafe. However, in schools across the country, school leaders are taking precautions to prevent school shootings. “A series of high-profile school shootings in the 1990s focused America’s attention on the problem of school violence. Public fear generated by these emblematic events drove a dramatic shift in security-related policies and procedures in our nation’s schools” (Borum, Cornell, Modeleski, & Jimerson, 2010, p. 27). However, some researchers have reported that it is difficult to identify effective practices to prevent school shootings because they receive such intense publicity and create a perception that schools are dangerous (Borum et al., 2010; Cornell, 2006).

As a result of the 1999 school shooting at Columbine High School, federal and state agencies, local school districts, and individual institutions assessed their crisis plans for the prevention of and response to school violence (Collins, 2007). Collins also reported that although schools had crisis plans in place, they did not include plans for active shooter incidents. Although statistics consistently show that children are far safer on school grounds

than nearly anywhere else, the incident at Columbine High School, which left 14 students, 1 teacher, and the two assailants dead, launched a new era in school security procedures (Johnson & Toppo, 2006).

After the school shooting at Columbine High School in April 1999, the U.S. Secret Service and the Department of Education collaborated to conduct a study called the Safe School Initiative (SSI) (Vossekuil et al., 2002). This study was initiated to determine “whether past school-based attacks were planned, and what could be done to prevent future attacks” (Pollack, Modzeleski, & Rooney, 2008, p. 3). The SSI revealed ten important findings that inform development of strategies to address the problem of targeted school violence. These findings were:

- “Incidents of targeted violence at school rarely are sudden, impulsive acts.”
- “Prior to most incidents, other people knew about the attacker’s idea and/or plan to attack.”
- “Most attackers did not threaten their targets directly prior to advancing the attack.”
- “There is no accurate or useful profile of students who engaged in targeted school violence.”
- “Most attackers engaged in some behavior prior to the incident that caused others concern or indicated a need for help.”
- “Most attackers had difficulty coping with significant losses or personal failures. Moreover, many had considered or attempted suicide.”
- “Many attackers felt bullied, persecuted or injured by others prior to the attack.”

- “Most attackers had access to and had used weapons prior to the attack.”
- “In many cases, other students were involved in some capacity.”
- Despite prompt law enforcement responses, most shooting incidents were stopped by means other than law enforcement intervention” (Vossekuil et al., 2002, p. 31).

These findings reveal that there are many circumstances that can lead to a school shooting. These circumstances expose the importance of training teachers to recognize student behavior that may indicate a shooting is being planned. If teachers are able to recognize behavior patterns in students, it may mean that some incidents might be prevented.

Another study by Dinkes, Cataldi, Lin-Kelly, and Synder (2007) revealed that schools began to combine security measures with the intention of decreasing the risk of a violent incident. “Security measures include metal detectors, locker checks, security cameras, security guards or police officers, adult supervision in hallways, badges or picture identification for students, a code of student conduct, locked entrance or exit doors during the day, and a requirement that visitors sign in” (p. 60). These safety measures consisted of searching lockers, placing staff in hallways, locking entrances and exits during the school day, requiring visitors to sign in, and using digital cameras that can be monitored by several individuals throughout the school day. There has been some evidence to suggest that security cameras may reduce negative behaviors and increase positive behaviors (Priks, 2008). This may suggest that individuals contemplating an act of violence might be deterred if they are aware of surveillance cameras.

Legislation has been passed that addresses the prevention of school shootings. As part of the Improving America's Schools Act, The Gun-Free Schools Act (GFSA) was passed in 1994. The act required states to pass laws demanding that students be expelled from school for at least one year if they were caught at school in possession of a gun. The GFSA was intended to lower instances of gun possession in U.S. schools. Many states also passed laws to include other offenses such as making threats, assaulting teachers, and selling drugs (Borum et al., 2010). The GFSA was the legislation that led to the zero tolerance policies in schools (Reynolds, Skiba, Graham, Sheras, Conoley, & Garcia-Vazques, 2008). These two pieces of legislation did not have the effect that legislators intended. Disagreement arose regarding application of the laws and issues with racial profiling (Gregory, Skiba, & Noguera, 2010; Reynolds et al., 2008; Shaw, 2001).

Research conducted by Cornell et al. (2009) revealed that when schools used a threat assessment model there were fewer incidents of school violence. They defined threat assessment as a "process of evaluating a threat and the circumstances surrounding a threat, and to uncover any facts or evidence that indicate that the threat is likely to be carried out" (p. 120). Cornell went on to say that people who implemented a threat assessment model were less anxious about the possibility of a violent incident occurring and felt more confident in their ability to help students resolve conflicts.

The Virginia Model for Student Threat Assessment (Virginia Model) is one approach used to prevent school shootings. This model emphasizes early attention to problems that may lead to violent behavior. These problems could be bullying or teasing (Cornell et al., 2009). The Virginia Model uses security measures such as notifying law

enforcement, warning potential victims, and creating an intervention plan intended to resolve the encounter that caused the threat before it is carried out (Cornell et al., 2009).

There are seven steps in the Virginia Model.

The first three steps are considered a triage process, and they are designed to determine whether or not a threat is transient (not serious) or substantive (serious) and requires immediate action. These first three steps are usually evaluated by the triage team leader (school principal or assistant principal) who makes the decision on the severity of the threat (Cornell et al., 2009). The remaining four steps involve using the triage team, completing a safety evaluation involving law enforcement and performing a mental health assessment of the student. The desired outcome of the threat assessment is to develop a crisis plan to address the problem and prevent violence from occurring (Cornell et al., 2009). One important element of preventing violent incidents, including school shootings, is preparedness. It would seem then that if teachers are trained in prevention and preparedness for school shootings, perhaps there would be a decrease in this type of school violence.

Teacher Preparedness for School Shootings

Pearson and Clair (1998) reported that when a crisis occurs, a person's view of the world can change and his/her self-identity can be challenged. They stated: First, a crisis challenges the victim's belief that "bad things can't happen to me." Second, a crisis erodes the assumption that "doing the right thing" will yield good things. Finally, when a crisis occurs, "victims lose their sense of worth and control, seeing themselves instead as weak, helpless and needy." (p. 83)

This could mean that teachers who are trained to respond effectively in a crisis may feel confident instead of helpless or needy. MacNeil and Topping (2007) also reported that “preparation involves planning, training, education and practice. Schools can improve their management of school crisis situations through advance planning and constantly evolving crisis plans” (p. 79). Urbina (2009) reported that a student who survived the Northern Virginia Community College shooting in December 2009 said that no one really knew what to do and there was confusion about staying in the classroom or evacuating. As cited by MacNeil and Topping, “Poland stressed the importance of the leadership of the school crisis team in addressing areas such as school crisis history, gaining administrative support for planning, and organization of school crisis response” (p. 79). Schools with effective crisis management plans have leadership (i.e. superintendents and building level administrators) who show a commitment to school safety. This commitment may reduce the number of violent incidents a school may experience (Estep, 2013; Folks, 2008).

A dangerous aspect of school crises could be that administrators may deal with a crisis by denying, lessening, or trying to avoid its effect. This may be done for two reasons: (a) to continue focus on educational goals, and (b) to reassure the community that everything is under control (Schonfeld et al., 2002). Cornell and Sheras (1998) stated that the “first determination any leader must make is whether a crisis is present or imminent. Without the recognition of a problem, efforts to prevent or respond to the problem cannot be undertaken.” (p. 297). Halawah (2005) stated that:

Effective communication is one critical characteristic of an effective and successful school principal. Research on effective schools and instructional

leadership emphasizes the impact of principal leadership on creating a safe and secure learning environment and a positive nurturing school climate. (p. 1)

Schonfeld et al. (2002) reported that suppressing the incident can backfire on administrators by creating a situation in which students and staff may take longer to work through their reactions to the situation, thus interfering with the teaching and learning process.

Involvement in a major crisis situation is not a typical experience for most adults. Consequently, they have little to draw from in terms of past experiences. Children have even less experience to draw from in the event of a crisis (MacNeil & Topping, 2007). Students will look to school personnel for guidance and direction in the event of a crisis situation. Therefore, it is important for school staff to know how to respond appropriately to a crisis situation.

A study conducted by Brown (2008) revealed that teachers do not believe that they are adequately trained to respond to a crisis at their school. Her research also revealed that after an incident occurred, only about half of the respondents stated that they discussed and evaluated the incident. She recommended that in-service trainings should be conducted “twice a year to ensure all staff understand what they are to do in the event of an emergency” (p. 108). Brown recommended five areas of further research in policy and practice in school crisis events. Her recommendations were: (a) routine surveys of teachers should be conducted by school administrators to reveal areas of needed training; (b) principals should provide in-services for teachers in crisis protocol; (c) drills for events such as armed intruders and hostage situations should be done as regularly as fire drills; (d) legislatures should require armed intruder drills just as they do

fire drills; and (e) teacher preparation programs should incorporate curriculum to teach effective responses in crisis situations. According to Brown (2008), it is a principal's responsibility to make sure his/her staff is trained in crisis management.

Brunner and Lewis (2005) stated that "an environment of safety in the school seldom comes down to any one particular component or plan; it is a combination of strategies and ideas that makes a school safe and secure for everyone" (p. 1). According to Brunner and Lewis (2005), there are ten top needs schools should implement for safety reasons.

These needs are:

- "Do not underestimate the value of strategic supervision";
- "Stress the importance of documentation and ensure that all staff members document issues and action related to school safety";
- "Do not assume, as the principal, that you will be present or in charge during an emergency";
- "Do not assume that local emergency service providers will be able to provide immediate assistance during a school crisis";
- "Have a variety of individuals review the emergency response plan each school year";
- "Do not assume that students will automatically come forward with important school safety information because it the right thing to do";
- "Periodically review the school's emergency response plan with all staff members throughout the school year";
- "Do not assume that parents believe the school has done everything possible to create a safe campus";

- “Do not assume that the district’s maintenance department or other outside staff members will monitor the school for safety deficiencies”; and
- “Provide students with an anonymous reporting system” (pp.22-24).

Teacher preparedness for school shootings is an important element in creating a safe and secure school environment. Brown (2008) stated that “teachers desire assistance from the leaders in their schools to prepare for crises” (p. 53). Leuschner et al. (2011) stated that:

Thus, there is a clear need to develop and implement evidence-based preventive approaches in order to protect students and school staff from further offenses and to support school staff in dealing with a shattered sense of safety in students, parents, and teachers. (p. 64)

Perhaps when teachers are supported by their principals in school safety endeavors, their perceptions of their ability to respond effectively to a school shooting incident will be high.

Timelines of U. S. and International School Shootings

The following timeline provides a comprehensive overview of school shootings and profiles incidents that took place from December, 1974 through October, 2014 at K-12 schools, colleges, and universities across the U.S. The timeline also includes several high-profile school shootings that occurred during this timeframe in other countries. The events are separated by location. The first group of school shootings took place in U.S. K-12 schools. The second group of school shootings took place on college/university campuses. The third group of school shootings took place internationally at K-12 schools, and the fourth group of school shootings took place internationally on

college/university campuses. This timeline provides the reader with a brief description of school shootings that occurred over the last 40 years. Although this is not an all-inclusive list of school shootings, these specific shootings were chosen because they represented all geographic areas of the world and both genders, a wide range of ages, and various ethnicities of shooters. This timeline demonstrates the need for teacher training in preparedness for active shooter incidents.

K-12 U.S. School Shootings.

Anthony Barbaro in Olean, New York. On December 17, 1974, 18-year-old Anthony entered his high school, which was closed for the Christmas holidays. He set several fires and when a custodian investigated the situation, Anthony, who was a member of the school's rifle team, shot him. After shooting the custodian, Anthony fired at firefighters and passers-by, killing the custodian, two others, and wounding nine (Madden, 1974; Newman, 2004).

Patrick Lizotte in Las Vegas, Nevada. On March 19, 1982, 17-year-old Patrick took a pistol and one hundred rounds of ammunition to school. He shot and killed his psychology teacher and wounded two students. The motive for the shooting was attributed to Patrick believing his teacher wanted to have him committed to a mental institution (Life term is urged to teacher killer, 1983; Newman, 2004).

David Lawler in Manchester, Missouri. On January 20, 1983, 14-year-old David went into his junior high study hall and shot two students. He killed one and injured the other before killing himself. The day before the shooting David had an altercation with one of the victims. Witnesses reported that right before the shooting David stood up and

shouted at the victims, “I am not going to put up with you talking about my brother anymore!” (Newman, 2004; Student planned shooting, 1983).

James Alan Kearby in Goddard, Kansas. On January 21, 1985, 14-year-old James went to school carrying an M-1 rifle, a .357 Magnum pistol and several rounds of ammunition. The principal confronted James and he began shooting. Two teachers and a student suffered injuries and the principal was killed. Students at the school described James as an “unpopular student who was sometimes hard to be around” and that he had a fascination with military weapons and war (Newman, 2004; “Residents shocked by,” 1985).

Kristopher Hans in Lewiston, Montana. On December 4, 1986, 14-year-old Kristopher went to his French classroom with the intention of killing his teacher who failed him. He knocked on the classroom door and asked the teacher to come out. At the time, his regular teacher was in the gymnasium. A popular substitute teacher answered the door instead. He shot her in the face and then fired multiple rounds as he exited the building. He killed the substitute teacher and injured the vice-principal and two female students. After the shooting several students came forward claiming that Kristopher told them he was going to kill his French teacher, but they thought he was joking. School officials denied knowing about any threats made against the French teacher (Newman, 2004; “Student kills teacher,” 1986).

Nicholas Elliot in Virginia Beach, Virginia. On December 16, 1988, 16-year-old Nicholas went in search of a student whom he wanted to kill because of a previous verbal altercation. During the course of the shooting, Nicholas killed one teacher and injured

another. Authorities also found explosives in his book bag and locker. He was sentenced to life plus 114 years in prison for his crimes (Newman, 2004; Somerville, 1989).

Eric Houston in Olivehurst, California. On May 1, 1992, 20-year-old Eric returned to his former high school with the intent to kill a former teacher. The teacher gave him a failing grade that prevented him from graduating three years earlier. He killed the teacher and three students. Nine students were also injured in the attack. He surrendered to police after taking 85 hostages and holding them for eight hours. Friends of Eric told law enforcement officials that he was upset about his parents plans for him to live alone, a recent break-up with his girlfriend and losing his job (“Ex-student indicted,” 1992; Newman, 2004).

Joseph White in Chicago, Illinois. On November 20, 1992, 16-year-old Joseph shot and killed another student in a crowded hallway at Tilden High School. The shooting occurred after gang members approached Joseph, who also was a gang member, in the school hallway for not paying a gambling debt they felt they were owed. Joseph came to school with a handgun secreted in his clothing, and approached the boy he had argued with, vowing not to repay him. Although the school had installed metal detectors to screen weapons, the detectors had not been used that day (Hawes & Wilson, 1992; Wilson, 1994).

Scott Pennington in Grayson, Kentucky. On January 18, 1993, 17-year-old Scott went to his seventh period English class with a .38 caliber revolver. He killed his teacher and a custodian who responded to the noise. He held the class members at gun point for 40 minutes and then gave himself up to authorities. Scott was charged with two counts of capital murder (Newman, 2004; “Teen will be,” 1993).

Toby Sincino in Blackville, South Carolina. On October 12, 1995, 16-year-old Toby went to his math class where he shot his teacher in the face. He then went down the hall, killed another math teacher and then himself. The shooting took place a day after he had been suspended from school for using an obscene gesture on a school bus. Toby's father reported that his son was the frequent target of bullying by classmates, and he had a temper when he was picked on by other students. (Newman, 2004; "Student shoots teacher," 1995).

Jamie Rouse in Lynnville, Tennessee. On November 15, 1995, 17-year-old Jamie walked down the hall of his school with a .22 caliber semi-automatic rifle and shot the first two teachers he encountered. He then walked into a crowded cafeteria where he fired again. The incident ended when he was subdued by a teacher and several students. He killed a teacher, a ninth grader, and seriously wounded another teacher. In an interview with CBS news, Jamie admitted that the movie *Natural Born Killers* made a big impression on him. Jamie stated that "it made killing look easy and fun, I mean, it fascinated me" (Leung, 2007). He reported that the music and violent images filled an emptiness inside – and their message made him feel powerful. He also stated that he believed violence gave him control. There was also a history of family problems (Leung, 2007; Newman, 2004).

Barry Loukaitis in Moses Lake, Washington. On February 2, 1996, 14-year-old Barry walked into his ninth grade algebra class, shot a student sitting at a desk and then fired at two students behind the first victim and at a teacher. He attempted to hold the class hostage but was overpowered by the physical education teacher. A teacher and two students were killed. Loukaitis' target was a popular boy who had teased him. He shot

the boy to death, and then he shot at two other students whom he said never bothered him. He shot the teacher, Leona Caires, in the back. When asked in a tape-recorded session with police why he shot the others, Loukaitis said he did not know but thought his reflexes just took over (Eagen, 1998; Newman, 2004).

Evan Ramsey in Bethel, Alaska. On February 19, 1997, 16-year-old Evan went to his high school searching for a particular student. He killed the principal, the student, and injured two others. He held a gun to his head before surrendering to authorities. In the days before the shooting, Evan told two of his friends that he could no longer keep his anger under control. He asked one for a gun and the second for instructions on how to use it. Neither student reported the comments Evan made. In an interview with ABC news, Evan stated, "I didn't realize if you shoot somebody they die" (Avila et al., 2008; Newman, 2004).

Luke Woodham in Pearl, Mississippi. On October 1, 1997, 16-year-old Luke stabbed his mother to death. He then went to his high school and shot and killed his former girlfriend. Luke then killed one other student and wounded seven others. (Dodson, 2009; Newman, 2004).

Michael Carneal in West Paducah, Kentucky. On December 1, 1997, 14-year-old Michael began shooting at a prayer circle that had gathered in the school lobby just before classes started. He killed three students and injured five others. Several of Michael's friends came forward after the shooting and reported that he made several comments about shooting people at school. The students stated that they did not report the comments to anyone because they did not want to get their friend in trouble. Parents

of the slain victims sued these students for failing to report Michael's comments, but the case was dismissed (Glaberson, 2000; Newman, 2004).

Joseph "Colt" Todd in Stamps, Arkansas. On December 6, 1997, 14-year-old Joseph stood in the pines on the edge of school grounds and fired at students walking to class. Although Joseph shot two students, neither one died. Joseph said he was humiliated by other students teasing him (Dolan, 2000; Newman, 2004).

Andrew Golden and Mitchell Johnson in Jonesboro, Arkansas. On March 24, 1998, Andrew, who was 11 years-old, and Mitchell, who was 13 years-old, lured their classmates and teachers out of the school building and onto the playground by pulling the fire alarm. From the nearby woods, they fired at their peers and teachers, killing four students and a teacher and injuring another ten. Mitchell reportedly wrote in his diary that after school he liked to shoot squirrels while pretending they were teachers who gave him in-school suspension (Koon, 2008; Newman, 2004).

Andrew Jerome Wurst in Edinboro, Pennsylvania. On April 24, 1998, 14-year-old Andrew brought a gun to the school dance. He shot and killed a teacher who came outside to tell the students to come back inside. He then walked through the doorway and called for another student. He fired three additional shots, wounding two classmates. A student told authorities that Andrew said he was going to make the dance memorable. The theme of the dance was "I've Had the Time of My Life" ("Pennsylvania students cope," 2008; Newman, 2004).

Jacob Davis in Fayetteville, Tennessee. On May 19, 1998, 18-year-old Jacob went to his high school and killed the new boyfriend of his ex-girlfriend. The incident

occurred in the high school parking lot. The three were supposed to graduate in three days (“High school senior,” 1998; Pearson Education, 2012).

Kip Kinkel of Springfield, Oregon. On May 21, 1998, 15-year-old Kip went to his high school cafeteria where students were gathered before classes started in the morning. Two boys were killed and 25 others were injured. He had also shot and killed his parents either the morning of the attack or the night before (Newman, 2004).

Quinshawn Booker of Richmond, Virginia. On June 15, 1998, 14-year-old Quinshawn shot a male teacher and a female volunteer in a hallway of Armstrong High School. Quinshawn was trying to settle an argument with another student. The teacher suffered a non-life threatening injury to the abdomen and the volunteer was reportedly grazed by a bullet. A police officer on duty at the school apprehended Quinshawn after chasing him into a wooded area outside the school (“Start ‘em young,” 1999; “Student in Custody,” 1998).

Shawn Cooper in Notus, Idaho. On April 16, 1999, 16-year-old Shawn brought a gun to school (wrapped up) on the school bus. He told the bus driver it was a science project. At school, he took the gun out and pointed it at a secretary and a student in the foyer outside the principal’s office. He then fired two shots in the direction of female students but no one was injured (Newman, 2004).

Eric Harris and Dylan Klebold in Littleton, Colorado. On April 20, 1999, 18-year-old Eric and 17-year-old Dylan entered the school cafeteria at Columbine High School and began a four-hour shooting spree. They killed 12 students and one teacher and injured 23 others before booby trapping the bodies with bombs and killing themselves (Cullen, 2009; Newman, 2004).

T.J. Solomon in Conyers, Georgia. On May 20, 1999, 15-year-old T.J. went to his high school, and fired 12 shots from his rifle. He then produced a handgun, fired three more shots, then surrendered to school officials. He wounded six students, one seriously. No one was killed (Newman, 2004).

Victor Cordova, Jr. in Deming, New Mexico. On November 19, 1999, 12-year-old Victor shot and killed a 13-year-old female student in the lobby of Deming Middle School (Pearson Education, 2012).

Seth Trickney in Fort Gibson, Oklahoma. On December 6, 1999, 13-year-old Seth randomly opened fire on his classmates before the start of the school day. He fired 15 shots and wounded four students (Newman, 2004).

Unidentified six-year old minor in Mount Morris Township, Michigan. On February 29, 2000, a six-year-old minor shot and killed a six year-old classmate at Buell Elementary School (Brehm, 2000; Pearson Education, 2012).

Darrell Ingram in Savannah, Georgia. On March 10, 2000, 19-year-old Darrell shot and killed two students while leaving a school-sponsored dance at Beach High School (Pearson Education, 2012).

Nate Brazill in Lake Worth, Florida. On May 26, 2000, 13-year-old Nate shot and killed a teacher on the last day of classes at Lake Worth Middle School (Pearson Education, 2012).

Darrell Johnson and William Pennington in New Orleans, Louisiana. On September 26, 2000, 13-year-old Darrell and 15-year-old William got into a fight at Woodson Middle School. Darrell pulled out a gun and shot William. William then grabbed the gun and shot Darrell. Authorities reported that Darrell obtained the weapon

from Alfred Anderson, also a 13-year-old, who was expelled from school at the time. Darrell was charged with attempted murder. Alfred, who supplied the gun, was charged with illegally carrying a weapon and being a party to attempted first-degree murder (Clendenning, 2000; Reckdahl, 2001).

Charles Andrew Williams in Santee, California. On March 5, 2001, 15-year-old Charles walked into a crowded boys' bathroom and began shooting. He reloaded at least four times during the six-minute rampage. Two students were killed and another 13 were injured, including a campus monitor and a student teacher (Newman, 2004).

Elizabeth Catherine Bush in Williamsport, Pennsylvania. On March 7, 2001, 14-year-old Elizabeth shot and wounded a female student in the cafeteria of Bishop Neumann High School (Pearson Education, 2012).

Jason Hoffman in El Cajon, California. On March 22, 2001, 18-year-old Jason walked into the school with a single-barrel shotgun over his shoulder. He found his target, the dean of students, right outside the school. He fired as the administrator dove out of the way. Jason fired two more shots, aiming indiscriminately at people in the school attendance quad area. He wounded two teachers and three students (Newman, 2004).

Donald R. Burt, Jr. in Gary, Indiana. On March 30, 2001, 17-year-old Donald shot and killed another student at Lew Wallace High School. At the time of the shooting, Donald was expelled from school for failing to attend classes (Pearson Education, 2012; "Teen fatally shot," 2001).

Chris Buschbacher in Caro, Michigan. On November 12, 2001, 17-year-old Chris may have been despondent over a break-up with his girlfriend. He attended Caro

Learning Center, an alternative school, for two years because of minor discipline problems in middle school. He took one teacher and one student hostage before committing suicide (Green, 2001; Pearson Education, 2012).

Vincent Rodriguez in New York, New York. On January 15, 2002, 18-year-old Vincent shot and injured two students at Martin Luther King, Jr. High School in Manhattan. Law enforcement officials stated the motive for the shooting was that the two victims teased Vincent's girlfriend and took a bandanna off her head. According to the Chancellor of the New York school system, the shooting may have had gang ties ("Arrest in NYC," 2002; "Two students shot," 2002).

Tyrone Crump, Herbert Everett, and Michelle Fulton in New Orleans, Louisiana. On April 14, 2002, Tyrone, Herbert and Michelle shot and killed a 15-year-old student and wounded three others at John McDonough High School. Authorities said the shooting appeared to be in retaliation for an earlier shooting and was gang related (Haber, 2003; Pearson Education, 2012).

James Sheets in Red Lion, Pennsylvania. On April 24, 2003, 14-year-old James went to his junior high school and shot and killed the principal and himself in the school cafeteria. James brought three of his stepfather's revolvers to school that day (Pearson Education, 2012; Pro, 2003).

John Jason McLaughlin in Cold Spring, Minnesota. On September 24, 2003, 15-year-old Jason killed two students at Rocori High School. He perceived these students to be bullies and claimed to have heard voices that told him to hurt the victims (Pearson Education, 2012; "Teen convicted of," 2005).

Jeff Weise in Red Lake, Minnesota. On March 21, 2005, 16-year-old Jeff went to school and killed a teacher, a security guard, five students and himself. Before arriving at school that day, he killed his grandfather and his grandfather's friend (Pearson Education, 2012).

Ken Bartley, Jr. in Jacksboro, Tennessee. On November 8, 2005, 15-year-old Ken went to school and shot and killed a principal and seriously wounded two other administrators. Students noticed and reported that Ken was carrying a gun. School administrators approached him and he opened fire ("Boy in school," 2005; Pearson Education, 2012).

Eric Hainstock in Cazenovia, Wisconsin. On September 29, 2006, 15-year-old Eric shot and killed Weston High School principal John Klang. The shooting occurred the day after Klang issued a warning to Eric for having tobacco at school. Eric obtained his weapons (a shotgun and a .22 caliber revolver) from his home. Authorities also reported that Eric complained to school officials that other students teased him (Pearson Education, 2012; "Wisconsin principal dies," 2006).

Christopher Williams in Essex, Vermont. On August 24, 2006, 27-year-old Chris went to Essex Elementary School looking for his ex-girlfriend who was a teacher at the school. He shot two teachers, killing one and wounding another, then turned the gun on himself. Earlier that day he killed his ex-girlfriend's mother. The ex-girlfriend was unharmed (Pearson Education, 2012; "Two killed in," 2006).

Duane Morrison in Baily, Colorado. On September 27, 2006, 57-year-old Duane entered Platte Canyon High School where he initially took six hostages. He then fired at approaching SWAT officers and also fired at and killed one of the female hostages before

shooting himself. He died at the scene. The other hostages were unharmed (“Sheriff: School shooter,” 2006; Illescas, Rouse, & Bunch, 2007; Pearson Education, 2012).

Carl Charles Roberts IV in Nickel Mines, Pennsylvania. On October 3, 2006, 32-year-old Carl went to the West Nickel Mines Amish School. He was armed with an array of weapons that included a 9mm semiautomatic pistol, a 12-gauge shotgun, and a rifle. He was also in possession of 600 rounds of ammunition. He had various rolls of tape, various tools and a change of clothes. He shot ten girls aged 6 to 13 years old, and then he shot himself. Five girls and Roberts died (“Fifth girl dies,” 2006; Pearson Education, 2012).

Douglas Chanthabouly in Tacoma, Washington. On January 7, 2007, 18-year-old Douglas shot a classmate in the face and body shortly before classes started at Foss High School. He pointed the handgun at several witnesses and fled the scene (Clarridge, 2007; Pearson Education, 2012).

Asa H. Coon in Cleveland, Ohio. On October 10, 2007, 14-year-old Asa shot and injured two teachers and two students. Asa was suspended two days before the shooting for fighting and was still suspended on the day of the shooting. He was armed with two revolvers, a duffle bag with ammunition, and three knives. The victim’s injuries were non-life threatening; however, Asa committed suicide (“Five hospitalized after,” 2007; Pearson Education, 2012).

Corneilous Cheers in Memphis, Tennessee. On February 11, 2008, 17-year-old Corneilous shot and wounded another student at Mitchell High School. The school principal reported that the incident was related to an argument the two students had the previous weekend (Pearson Education, 2012; “Student shot at,” 2008).

Brandon McInerney in Oxnard, California. On February 12, 2008, 14-year-old Brandon shot and killed another student at E.O. Green Junior High School. Brandon shot the other student, also a male, in front of other classmates during class. Prosecutors stated the shooter was charged with a hate crime because of the victim's statements regarding his sexual orientation (Pearson Education, 2012; Saillant & Covarrubias, 2008).

Teah Wimberly in Fort Lauderdale, Florida. On November 12, 2008, 15-year-old Teah shot and killed one of her classmates as students were changing classes. The motive for the shooting appeared to be an ongoing dispute between the two students (Pearson Education, 2012; Rodriguez, Bushouse, & Santana, 2008).

Justin Doucet in Larose, Louisiana. On May 18, 2009, 15-year-old Justin fired a .23 caliber semi-automatic pistol at a teacher. He missed and then went into a bathroom and shot himself in the head. Law enforcement reported that Justin left a hand-written journal and a suicide note. The journal and suicide note revealed his detailed plans to shoot four students. He also expressed disappointment that he wouldn't have enough bullets left to kill a police officer. Law enforcement also reported that Justin was fascinated by the Columbine High School shootings (Faciane, 2009; "Police, Louisiana Eighth," 2009).

Hammad Memon in Madison, Alabama. On February 5, 2010, 14-year-old Hammad shot and killed a classmate while walking down the hallway at Discovery Middle School. No other students or faculty members were harmed by the alleged shooter ("Ala. student in," 2012; Pearson Education, 2012).

Thomas Richard Cowan in Blountville, Tennessee. On August 30, 2010, 62-year-old Thomas drove his car to Sullivan High School. As he approached the main entrance he met a student and the principal. He was armed with two handguns and pointed them in their direction. The school resource officer drew her weapon and led Thomas into the building so he could be contained until police arrived. Once police arrived, Thomas drew his weapon toward them and was killed by police (Galofaro & Gilbert, 2010).

Robert J. Butler in Omaha, Nebraska. On January 5, 2011, 17-year-old Robert opened fire at Millard South High School. The assistant principal was killed and the principal was seriously wounded. Robert, the son of an Omaha police officer, was later found dead of an apparent self-inflicted gunshot wound in his car not far from the school (Martinez, 2011; Pearson Education, 2012).

Unidentified assailants in Houton, Texas. On March 30, 2011, one student was killed and five were injured in a drive by shooting after a powder puff football game at Worthing High School. Police report the shooting was gang related and the shooters may have been students at a nearby high school. Witnesses reported seeing several shooters ("One dead, 5," 2011; "Deadly shooting breaks," 2011).

Hunter Mack in Walpole, New Hampshire. On February 10, 2012, 14-year-old Hunter shot himself in the face with a 20-gauge shotgun at Walpole Elementary School. The shooting took place in the school cafeteria in front of 70 students. Authorities believed the shooting was a suicide attempt. Hunter survived the incident (Conti & Adams, 2012; Leamanczyk, 2012; Pearson Education, 2012).

T.J. Lane in Chardon, Ohio. On February 27, 2012, 16-year-old T.J. killed three students and injured six at Chardon High School. T.J. told authorities that the students he

shot were chosen at random. At the time of the shooting, T.J. was waiting for the bus to take him to the alternative school he attended not because of problems, but because he wanted greater flexibility. He wanted to get out of school early and work (Caniglia, 2012; Caniglia, 2013; Pearson Education, 2012).

Shane Schumerth in Jacksonville, Florida. On March 6, 2012, 27-year-old Shane shot and killed the headmaster of The Episcopal School of Jacksonville. Apparently angered by being fired as a Spanish teacher earlier that morning, Shane returned to the school with an AK-47 assault rifle, killed the headmaster and then killed himself (Alvarez, 2012; Pearson Education, 2012).

Adam Lanza in Newtown, Connecticut. On December 14, 2012, 20-year-old Adam shot and killed his mother. He then went to Sandy Hook Elementary School where he killed 20 children and six adults. This shooting was the second deadliest in U.S. history. The most deadly was the Virginia Tech shooting in 2007 that claimed 32 lives (Barron, 2013; Domenech, 2013; Pearson Education, 2012).

Darius McNeil and Johnathan Jermaine Haynes in Sardis, Mississippi. On August 23, 2013, 21-year-old Darius and 21-year-old Johnathan shot and killed a 15-year-old student-athlete after a football game. Authorities reported that while the two teams were meeting at mid-field after the game, shots rang out. Authorities stated the shooting was gang related. The shooters were charged with capital murder (Squires, 2013; "Three gang members," 2013).

Jose Reyes in Sparks, Nevada. On October 21, 2013, 12-year-old Jose shot and killed a math teacher and wounded two classmates at Sparks Middle School. Jose then fatally shot himself in front of witnesses. Authorities have not determined a motive and

do not know whether Reyes was shooting randomly or targeting victims (Clifton & Timko, 2013; Mason, 2013).

Jamorian Eddie Patrick Bell in Winter Garden Florida. On December 4, 2013, 17-year-old Jamorian shot and wounded a classmate at West Orange High School. According to law enforcement officials Jamorian and the victim were involved in an altercation near the bus loop as students were being dismissed for the day (Curtis & Weiner, 2013; Golgowski, 2013; "Suspect in custody," 2013).

Karl Pierson in Littleton, Colorado. On December 13, 2013, 18-year-old Karl went to Arapahoe High School and shot and killed a classmate and himself. Officials reported that Karl shot his victim in the face at point-blank range with a 12-gauge shotgun as she sat outside the library. He then committed suicide as an armed deputy at the school confronted him. His original plan was to shoot the school's debate coach and librarian because of a dispute related to disciplinary action taken against him. Students reported that Karl was very involved in the speech and debate club until he was placed on some kind of restriction by the coach. In addition to his 12-gauge pump-action shotgun, Karl had 125 rounds of steel-shot, buckshot and slug ammunition, a machete and three Molotov cocktails. The debate coach escaped unharmed (Henderson, 2013; "Teen shot in," 2013).

Mason Campbell, Roswell, New Mexico. On January 14, 2014, 12-year-old Mason entered his middle school gymnasium and opened fire with a sawed-off shotgun he took from his home. Law enforcement officials continue to investigate the shooting in which two students were seriously injured. Mason is facing three third-degree felony charges of aggravated battery (Golgowski, 2014; Narayan, Mungin, & Botelho, 2014).

Raisheem Rochwell, Philadelphia, Pennsylvania. On January 16, 2014, 17-year-old Raisheem shot and injured two students in the gymnasium of Delaware Valley Charter School. As of this writing, Raisheem turned himself in to law enforcement officials in connection with the shooting. Media reports indicate that police believe other students were involved in the shooting (Valencia, Brumfield, & Sutton, 2014).

Jared Padgett in Troutdale, Oregon. On June 10, 2014, 15-year-old Jared entered Reynolds High School and began shooting. One student and the gunman were killed and a teacher was injured. A student reported that at the start of school gunshots rang out and he saw the gunman chasing a physical education teacher down the hall. It was reported that Jared used his brother's army reservist rifle in the shooting (Ortiz & Gittens, 2014; Connor, 2014).

Jaylen Russell in Albemarle, North Carolina. On September 30, 2014, Jaylen got into an argument with a classmate before classes began at Albemarle High School. Jaylen pulled out a gun and shot and wounded another student. Police stated that an altercation between the two students occurred several days before the shooting and escalated into violence that morning. After the shooting, Jaylen dropped his weapon and surrendered to the principal and school resource officer. He was then taken into custody by law enforcement officials (Cavillier, 2014; "Student shot at," 2014).

Jaylen Fryberg in Marysville, Washington. On October 23, 2014, 14-year-old Jaylen pulled out a gun in his high school cafeteria and shot five classmates. Four students were killed and one was wounded. Jaylen then committed suicide. Police reports stated that Jaylen invited the victims to lunch then shot them at their table.

Jaylen's friends reported to authorities that he was upset about a girl ("Bang, Bang I'm," 2014; "Fifth teen dies," 2014).

U.S. College and University school shootings.

Wayne Lo in Great Barrington, Massachusetts. On December 14, 1992, 18-year-old Wayne, a student at Simon's Rock College of Bard, walked up to the school security checkpoint and shot the female security guard. He then fired at a professor driving through the parking lot. He went to the library and shot at several students who were studying. He then proceeded to a dorm and opened fire in the hallways. He killed a teacher and a student and wounded four others. Students reported that Wayne had become angry and withdrawn in the weeks preceding the shooting. Authorities stated that Wayne purchased the weapon used the morning of the shooting (Newman, 2004; "Shooting rampage kills," 1992).

Peter Odighizuwa, in Grundy, Virginia. On January 16, 2002, 42-year-old Peter shot and killed three faculty members at Appalachian School of Law. Three students were also wounded. Students reported that Peter was upset over being permanently dismissed and was in a troubled marriage. Three law school students who were former police officers apprehended Peter and held him until police officers arrived on the scene (Clines, 2002; "Law Students Tackled," 2002).

Robert Stewart Flores, Jr. in Tuscon, Arizona. On October 28, 2002, 41-year-old Robert, who was a nursing student at the University of Arizona, shot and killed three nursing professors. Authorities reported that the killings were retaliation because Robert received failing grades in the nursing program. Witnesses reported that Robert seemed

calm and let his fellow classmates leave unharmed during the attack. Classmates described Robert as a potentially dangerous person (Broder, 2002; Gabrielson, 2002).

Cho Seung-Hui in Blacksburg, Virginia. On April, 16, 2007, 23-year-old Cho killed 33 people including himself and wounded 15 others at Virginia Polytechnic Institute and State University (Virginia Tech). Many of the victims were students who were shot in a dorm or a classroom building (Hauser & O'Connor, 2007; Pearson Education, 2012).

Loyer D. Braden in Dover, Delaware. On September 21, 2007, 18-year-old Loyer shot and wounded two students at Delaware State University. The shooting happened as a group of students were returning from an on-campus café ("Delaware shooting suspect, 2009; Pearson Education, 2012; "Two wounded in," 2007).

Latina Williams in Baton Rouge, Louisiana. On February 8, 2008, 21-year-old Latina entered a classroom at Louisiana Technical College and briefly spoke with the instructor. She left after this short conversation then returned and fired six rounds using a .357 revolver killing two students. She reloaded her weapon and shot herself in the head (Pearson Education, 2012; "Three dead in," 2008; "Woman kills 2," 2008).

Stephen P. Kazmierczak in DeKalb, Illinois. On February 14, 2008, 27-year-old Stephen killed five students and himself and wounded 21 others. The shooting took place in a classroom at Northern Illinois University. Stephen had previously attended Northern and was liked by those who knew him (McCarthy, 2013; Pearson Education, 2012).

Devonni Manuel Benton in Atlanta, Georgia. On September 3, 2009, 21-year-old Devonni shot and killed a student on the campus of Clark Atlanta University. The victim

was hit by a stray bullet as she attempted to break up a fight between students from the university and non-students (Simon & Garner, 2010; Visser, 2009)

Jason Michael Hamilton in Woodbridge, Virginia. On December 8, 2009, 20-year-old Jason opened fire in a classroom at North Virginia Community College. He fired at least two shots at his math teacher who hid under her desk. No one was injured. After the shooting, witnesses stated that Jason put down his weapon and quietly sat down in the hallway until police arrived. He was described by other students as disgruntled. (Jackman, Bruske, & Williams, 2009; Urbina, 2009).

Amy Bishop in Huntsville, Alabama. On February 12, 2010, during a faculty meeting denying her tenure, 44-year-old Amy shot and killed three colleagues and wounded three others. After the shooting at the university, authorities re-opened the Massachusetts shooting death of her brother in 1986. After a new investigation she was charged with first degree murder in that case (Brown, 2012; Dewan & Zezima, 2010; Pearson Education, 2012).

Nathaniel Brown in Columbus, Ohio. On March 9, 2010, 51-year-old Nathaniel shot and killed a co-worker and injured another before killing himself. The shooting occurred on the campus of The Ohio State University. Authorities believe the shooting happened because Nathaniel received a poor job performance evaluation and was going to be terminated. University officials confirmed that Nathaniel was a new employee with probationary status. No students were injured in the attack. ("Second person dies," 2010; Urbina, 2010).

Napoleon Lavarias Caliguiran of San Jose, California. On May 10, 2011, 54-year-old Napoleon shot and killed two students in the parking garage of San Jose State

University while they were sitting in the vehicle of one of the victims. One of the students killed was his wife. Police reported the case was an incident of domestic violence. After killing the two victims, Napoleon killed himself (McSweeney & Lee, 2011; Louie, 2011).

Ross Truett Ashley in Blacksburg, Virginia. On December 8, 2011, 22-year-old Ross shot and killed a campus police officer at Virginia Tech University. Ross then killed himself in a parking garage a few blocks away. Police reported that the shooter stole a vehicle the day before and shot the officer during a routine traffic stop on campus. Ross was a part-time student at nearby Radford University (“Armed suspect stole,” 2011; deVise, 2011).

One L. Goh in Oakland, California. On April 2, 2012, 43-year-old One shot and killed seven people and wounded three on the campus of Oikos University. University officials reported that One was expelled from the school a few months prior to the shooting. Police reported that his original intention was to kill a female administrator but when he could not find her, he began shooting the other victims. A witness reported that One told the victims to get in line and he began shooting (“One L. Goh,” 2012; Pearson Education, 2012).

Aaron Ybarra in Seattle, Washington. On June 5, 2014, 26-year-old Aaron entered a building on the campus of Seattle Pacific University and opened fire. One man was killed and three others were injured. Aaron was subdued by students who held him at bay until authorities arrived. Local law enforcement stated that the students who subdued the shooter stopped him from reloading and shooting more people (Johnson, 2014).

K-12 International School Shootings.

Thomas Hamilton in Dunblane, Scotland. On March 13, 1996, 43-year-old Thomas walked into the gymnasium of Dunblane Primary School and began shooting. He killed 16 students and one teacher, and wounded 12 students and two teachers. After leaving the gymnasium, Thomas went into another section of the school and committed suicide. Neighbors stated that Thomas had been previously turned down as a volunteer at the school and was described as fascinated with small boys and bitter over rejection (Clouston & Boseley, 2013; Cusik, 1996).

Mohammad Ahman al-Naziri in Sanaa, Yemen. On March 30, 1997, 48-year-old Mohammad shot and killed six students and two adults at two schools in Yemen (Pearson Education, 2012).

Todd Cameron Smith in Alberta, Canada. On April 28, 1999, 14-year-old Todd went to his high school and shot at three students in the hallway. One student was killed and another was wounded. One week prior to this incident the Columbine shootings happened. Authorities considered this incident to be a copycat shooting (Blumenfeld, 2012; Pearson Education, 2012).

Unidentified student in Veghel, Netherlands. On December 7, 1999, a 17-year-old student shot and wounded three students and a teacher. Another student was grazed by a bullet and not seriously injured. Law enforcement stated that the student appeared to be upset over a romantic situation involving his sister and was searching for someone who was not at school that day. The shooting took place inside the regional vocational school. After the incident the shooter surrendered to police (Pearson Education, 2012; “Student shoots four,” 1999; “Student wounds five,” 1999).

Unidentified student in Brannenburg, Germany. On March 10, 2000, a 16-year-old student returned to his school the day after being suspended. He was armed with two large calibre guns and 100 rounds of ammunition. He shot the headmaster and then himself. According to authorities, the shooter was to be expelled from the school for discipline issues and a failed drug test (“Arrest in Germany,” 2000; Pearson Education, 2012).

Two unidentified shooters in Jan, Sweden. On January 18, 2001, two boys aged 17-years-old and 19-years-old shot and killed a student at a high school. The shooters motive appeared to be drug related. The victim’s brother apparently owed the shooters money. When the shooters could not find the boy who owed them money, they shot and killed his brother. The shooters were not students at the school (“Boy dies in,” 2001; Pearson Education, 2012).

Unidentified adult in Freising, Germany. On February 19, 2002, a 20-year-old gunman shot and killed three people then committed suicide. Two of the victims were killed at his former workplace where he was recently fired. He then went to his former school and killed a principal and seriously wounded a teacher. Authorities claimed that the gunman was looking for a specific teacher and when the teacher could not be located, he shot the principal and another teacher instead. The man also set off two homemade pipe bombs at the school (“Gunman kills himself,” 2002; “Lone gunman kills,” 2002; Pearson Education, 2012).

Robert Steinhäuser in Eurfurt, Germany. On April 26, 2002, 19-year-old Robert shot and killed 16 people and wounded seven before committing suicide at Johann Gutenberg high school. Steinhäuser was armed with a 9mm glock 17 and a 12-gauge

pump-action shotgun and 540 rounds of ammunition. Authorities suggested that Robert may have been planning the attack for months or even a year. Authorities also suggested that he must have been getting his collection of ammunition from the black market over a considerable period of time (“Erfurt massacre planned,” 2002; Pearson Education, 2012).

Dragoslav Petkovic in Vlasenica, Bosnia. On April 29, 2002, 17-year-old Dragoslav shot and killed his history teacher and wounded his math teacher. He then committed suicide in front of 30 students. The night before the shooting, Dragoslav complained to a friend that his history teacher did not like him and he felt that the teacher was going to fail him for the year. (“Bosnian teenager kills,” 2002; Pearson Education, 2012).

Unidentified student in Coburg, Bavaria. On July 2, 2003, a 16-year-old student shot two teachers and then committed suicide. Witnesses stated that the student stood up from his chair during science class, took out a weapon and shot the teacher. Another teacher attempted to wrestle the gun away from the student and was also shot (Leuschner et al., 2011; Paterson, 2003; “Teen student kills,” 2003).

Unidentified student in Carmen de Patagones, Argentina. On September 28, 2004, a 15-year-old student opened fire in a classroom using a .9mm handgun. He killed four students and wounded five. Witnesses reported hearing what sounded like fire crackers then saw students running out of the classroom (“Four die in,” 2004; “Four killed in,” 2004; Pearson Education, 2012).

Pekka-Eric Auvinen in Tuusula, Finland. On November 7, 2007, 18-year-old Pekka-Eric shot and killed five students, the principal, and the school nurse before committing suicide. A friend of Pekka-Eric’s told police that he knew the gunman and

that he had not been acting like himself recently. He went on to say that Pekka-Eric became withdrawn and seemed depressed. Authorities found a manifesto written by Pekka-Eric in which he discussed nihilism, hate, and his disappointment with society and his peers. Pekka-Eric was described as shy and lonely. He belonged to internet communities that glorified school shootings. He uploaded videos and pictures to the internet before the shooting (Oksanen, Nurmi, Vuori, & Räsänen, 2013; Pearson Education, 2012; Turula, 2007).

Tim Kretschner in Winnenden, Germany. On March 11, 2009, 17-year-old Tim killed 15 people. The shooting began at Albertville secondary school where nine students and three teachers were killed. Tim also wounded seven students. After the shooting, Tim fled the scene and killed a worker at a psychiatric clinic. He then hijacked a car and told the driver to take him to a town about 25 miles away. At a Volkswagon dealership, Tim shot and killed an employee and engaged in a standoff with police. He was shot in the leg and as police moved in he shot himself in the head (Dougherty, 2009; Pearson Education, 2012).

Farda Gadyrov in Azerbaijan, Baku. On April 30, 1999, 29-year-old Farda killed 12 students and injured 13 at the Azerbaijan State Oil Academy. He apparently entered the building and began shooting anyone he saw. When Farda saw police closing in, he shot himself with a semi-automatic Makarov pistol. Police could not find any motive for the shooting (Pearson Education, 2012; "Shooting at Azerbaijan," 2009; "Thirteen dead, including," 2009).

Wellington Menezes de Oliviera in Rio de Janeiro. On April 7, 2011, 23-year-old Wellington killed 11 students and injured 30 at the Tasso da Silveira Municipal School.

Wellington was a former student who gained access to the school by saying he was an invited speaker and was there to give a lecture. Shortly after being admitted, he went to several classrooms and opened fire. When he encountered police, he committed suicide. Officials reported that Wellington left behind a suicide note asking for forgiveness and revealing that he had HIV. In August of 2010 he was fired from his job due to poor performance. Wellington's sister told authorities that he did not have many friends and was a loner (Blackburn, 2011; Pearson Education, 2012; Rapoza, 2011).

Mohamed Merah, in Toulouse, France. On March 19, 2012, the 23-year-old Islamic extremist killed a Rabbi and three students and wounded another student at a Jewish school. Authorities believed that Mohamed filmed the shootings because in surveillance video he is seen with a camera attached to his chest. Police suspected that this shooting was connected to other shootings in the area because the same weapons were used in other attacks. Mohamed stated that his motive was to avenge the deaths of Palestinian children. He also disliked the French army's involvement in Afghanistan and said he trained with al-Qaida. It was believed that he had many weapons in his apartment, including an Uzi and a Kalashnikov assault rifle. When police closed in Mohamed jumped from a bathroom window. He was found dead at the scene and prosecutors reported he had been shot in the head ("Jewish school slayings," 2012; Pearson Education, 2012; Sayare & Erlanger, 2012).

International College and University School Shootings.

Marc Lepine in Montreal, Canada. On December 6, 1989, 25-year-old Marc went to Ecole Polytechnique College and killed 14 students and injured 10. It was reported that he told female students that he hated feminists. Marc went through the

various areas of the college including corridors, the cafeteria, and another classroom. He was specifically looking for women to shoot. He then committed suicide (Binder, 2012).

Kimveer Gill in Quebec, Canada. On September 13, 2006, 25-year-old Kimveer killed one student and injured 19 other students at Dawson College. Authorities stated that Kimveer targeted the student who was killed. He engaged in a standoff with police for several minutes before shooting himself in the head. He used a semi-automatic rifle and a hand-gun to carry out his attack. School officials reported that Kimveer was never a student at the school. It was also reported that he was obsessed with guns but obtained the firearms used in the shooting legally (“College shooter obsessed,” 2006; Daly, 2009; Pearson Education, 2012).

Matt Saari in Kauhajoki, Finland. On September 23, 2008, 22-year-old Matt killed nine students and a teacher then committed suicide at a vocational college. Authorities stated that this shooting has many similarities to the Jokela High School shooting. Law enforcement reported that Matt also used social media to upload pictures and videos before the attack. In fact, police were alerted to the internet material days before the shooting and questioned Matt about them. He was released because police did not have enough evidence to hold him (Oksanen et al., 2013; Pearson Education, 2012; Turula, 2008).

Aside from the compelling nature of the sheer number of incidents, there are several other instructive elements in these timelines. The timeline included both male and female shooters as well as student and adult shooters. Also included in the timeline are the locations of school shootings (elementary, secondary and collegiate level). The timelines above comprise 61 U.S. K-12 public school shootings and three private K-12

school shootings. Internationally, the timeline consists of 15 K-12 public school shootings and one private school shooting. The U.S. timeline consists of 13 public college/university shootings and one private college/university shooting. Internationally, the timeline consists of one public college/university shooting and no private college/university shooting. The U.S. timeline also consists of 76 male shooters and 5 female shooters. Internationally, the timeline consists of 12 male shooters and no female shooters. The U.S. timeline consists of 13 adult shooters and 68 student shooters. Internationally, there were 9 adult shooters and 10 student shooters. There were four unidentified shooters in the U.S. timeline and six in the international timeline

Summary

Understanding the reasons for school shootings remains difficult. Research has shown that many of the school shooters shared some similarities such as family history, psychological problems, and race (Brown et al., 2009; Ferguson et al., 2011; Hong et al., 2011; Langman, 2009; O'Toole, 1999; Shermer, 2013). Since it is impossible to determine which students will commit a school shooting, school districts should take responsibility to ensure the safety of all students and staff (Bomber, 2013; Kennedy, 2001, 2013; MacNeil & Topping, 2007; NyBlom, 2003; Sela-Shayovitz, 2009; Trump, 1999, 2009). Swezey and Thorpe (2010) stated that “educators must remain vigilant and recognize the warning signs exhibited by troubled students” (p. 286).

In addition to recognizing troubled students, schools should implement crisis management plans. However, it is not enough to merely implement a crisis management plan. It is vital that school districts make a commitment to practice the plan and make

necessary adjustments in order to be prepared for a crisis (Badzmierowski, 2011; Cornell et al., 2009; Estep, 2013; MacNeil & Topping, 2007).

The timeline of school shootings illustrates by the sheer force of numbers the need for training to prepare for active shooter incidents in all school settings in the U.S and abroad. The majority of school shootings are occurring at K-12 schools and being committed by mostly male student perpetrators. Perhaps if schools implement specific training to prepare teachers for such incidents, the likelihood of a shooting occurring will be lessened.

CHAPTER III

METHODOLOGY

This chapter describes the research design and methodology used to conduct the study. The chapter includes a description of the research questions and hypotheses, the participants in the study, the research design, the instrument used, the process for data collection, and the statistical analysis procedures. The principal goal of this research study was to determine whether teachers in Mississippi believe that their school districts adequately train them to respond effectively to an active shooter incident in their schools. This study was conducted in October of 2014.

Research Questions

The researcher used a quantitative approach that was informed by an open-ended constructed response item. The research questions for this study were:

1. What are teachers' perceptions of their own preparedness to respond effectively to an active shooter incident?
2. What are the perceptions of teachers regarding planning in preparation for active shooter incidents?
3. What are the perceptions of teachers regarding practice and drills in preparation for active shooter incidents?
4. Are the perceptions of teachers regarding planning related to their perceptions of their own preparedness to respond effectively to an active shooter incident?
5. Are the perceptions of teachers regarding practice and drills related to their perceptions of their own preparedness to respond effectively to an active shooter incident?

6. To what degree do teachers perceive that their administrators are prepared to respond effectively to an active shooter incident?
7. Are the perceptions of teachers regarding their administrators' preparedness to respond to an active shooter incident related to their perceptions of their own preparedness to respond effectively to an active shooter incident?
8. What problems do Mississippi schools face in terms of preparing teachers for active shooter incidents?

The following related hypotheses were addressed in the study:

H₁: The perceptions of teachers regarding planning are related to their perceptions of their own preparedness to respond effectively to an active shooter incident.

H₂: The perceptions of teachers regarding practice and drills are related to their perceptions of their own preparedness to respond effectively to an active shooter incident.

H₃: The perceptions of teachers regarding their administrators' preparedness to respond effectively to an active shooter incident are related to their own perceptions of their preparedness to respond effectively to an active shooter incident.

Research Design

This study used a quantitative design that was informed by an open-ended constructed response item. Data were collected from high school teachers in Mississippi. A survey instrument was created by the researcher and centered on whether or not teachers believe they are appropriately trained to respond effectively to an active shooter incident in their school. The research design incorporated quantitative and qualitative

analyses. The qualitative portion of this study was chosen because it can provide a more in-depth look into teachers' perceptions regarding their preparedness for active shooter incidents. In addition, this analysis may provide information that can improve the training school districts provide for their teachers. The variables in this study were teachers' perceptions of their ability to respond effectively to an active shooter incident, teachers' perceptions regarding planning for active shooter incidents, teachers' perceptions regarding practice and drills for active shooter incidents, and teachers' perceptions of their administrators' preparedness to respond effectively to an active shooter incident. Approval of the study was granted through The University of Southern Mississippi Institutional Research Board (IRB). The IRB approval form is attached as Appendix A.

Participants

The purpose of this study was to determine high school teachers' perceptions regarding their preparedness for an active shooter incident. To carry out this study, the researcher recruited participants who were currently teaching at the high school level in Mississippi. A representative sample of high school teachers in Mississippi were contacted and encouraged to take part in the study. The sample was determined through selected background factors. The background information included school size, location of the school (rural or urban), region of the state in which the school is located, school performance status, and socio-economic status. The sample of teachers was predicted to range from 300-500 and was actually 418. The Active Shooter Preparedness Training Survey was mailed to 1,248 teachers and 418 were returned. This represented a response rate of 33%.

All 152 Superintendents in Mississippi were contacted by letter in order for the researcher to secure permission to conduct the study in their districts. Of the Superintendents contacted, 45 gave their permission for the researcher to conduct the study. The letter and form for requesting superintendent permission are attached as Appendix B. After approval was obtained from the superintendents in school districts identified for the sample, and after approval was obtained from the IRB, the researcher contacted 24 high school principals and conducted the study in their schools. This represented a 53% participation rate. The study participants consisted of public high school teachers. The high schools where participating teachers were employed were diverse in terms of socio-economic status, location (rural or urban), and were also varied in academic performance ratings. A state-wide sample was chosen over a regional sample to ensure that the sample produced enough scores to yield sufficient useable data. In addition, a statewide sample provided a clearer picture of what is taking place in high schools in Mississippi regarding the perceptions of teachers about their preparedness to respond to an active shooter incident. High schools were chosen because of researcher interest in high school preparedness for active shooter incidents, and because school shootings that have occurred in Mississippi have occurred at the high school level.

All participants were volunteers in the study and gave their consent to participate by completing the survey. The participant cover letter and the informed consent document for participants are attached as Appendix C. These documents explained to participants and superintendents that participation was voluntary and confidential. Although some demographic information was sought, no identifying information was needed. Demographic information was used in the statistical analysis of the data.

Instrumentation

The instrument used in this study was the Active Shooter Preparedness Training Survey for High School Teachers (ASPTS). Due to the lack of availability of an instrument with content that aligns with the goals of the study, the instrument was developed by the researcher. The instrument is attached as Appendix D.

In order to gain information about the participants and the environment in which they teach, the instrument contained background items that addressed number of years teaching and region of the state where they teach. The background information also contained items that addressed student population, percentage of students who received free or reduced price lunch, and school performance status. In addition, the background items addressed whether or not the participants' schools have active shooter incident procedures, how many times they practice active shooter incident drills, how often the active shooter incident procedures are updated, and how familiar they are with their school's active shooter incident drill procedures. Lastly, the background items addressed whether or not the participants' schools employ a full-time school resource officer, and if that resource officer provided any training for staff pertaining to active shooter incident preparedness.

The instrument also contained items developed to allow teachers to give their perspectives regarding planning, practice and drills, teacher preparedness and principal preparedness for active shooter incidents. These items were arranged in subscales that are titled planning, practice/drills, teacher preparedness, and principal preparedness as viewed by teacher. Items in these instrument subscales used a Likert-type scale format

and included response options ranging from 1=Strongly Disagree, 2=Disagree, 3=Agree, 4= Strongly Agree.

The last question on the instrument was a constructed response item that asked the participants to write down any barriers their school faced in preparing teachers for active shooter incidents. The answers given regarding this question may give deeper insight into the problems school districts face in training their teachers for active shooter incidents. By having teachers respond in writing, specific strengths and weaknesses in active shooter incident training may be identified.

Background Items

The first section of the instrument (items 1-9) contained background questions. These background items were developed based on two considerations. Some were created because the data that they supplied was needed in order to answer specific research questions. Others were created because the researcher had concluded, based on the review of literature, that the data would be useful criteria in determining how to develop a representative sample.

Item 1 asked participants how long they have been teaching (1 year, 2-5 years, 6-10 years, 11-15 years, 16-19 years, 20 or more years). Item 2 asked participants in what region of the state they currently teach (Northern, Central, or Southern). Item 3 asked about the student population of their school (less than 500, 501-1000, 1001-2000, 2001-3000, 3001 or more). Item 4 asked participants the percentage of students who receive a free or reduced price lunch (0-25%, 26-50%, 51-75%, and 76-100%). Item 5 asked participants their school performance status (A-F on the state rating scale). Item 6 asked the participants how many times a year they practice active shooter incident drills (0

times per year, 1-2 times per year, 3 or more times per year). Item 7 asked participants how many times a year the active shooter incident procedures are updated (1 time per year, 2 times per year, don't know, N/A). Item 8 asked each participant whether his/her school employs a full-time school resource officer (yes or no). Item 9 asked the participants who have a school resource officer if the officer provides training for teachers in active shooter preparedness (yes or no).

Planning Sub-Scale

Seven items (10-16) were designed to measure participants' perceptions regarding how well they believed their schools have planned for an active shooter incident. The participants answered the questions using the previously described Likert Scale with a possible score of 1-4 for each question. An overall average score equating to agree or strongly agree in this area likely meant that a participant believed that his/her school has effective practices relative to planning for active shooter incidents.

Practice/Drills Sub-Scale

Seven questions (items 17-23) were designed to measure participants' perceptions regarding their school's practices related to active shooter incident drills. The participants answered the questions based on their knowledge of and experience with active shooter incident drills in their schools. The participants answered the questions using the previously described Likert Scale with a possible score of 1-4 for each question. An overall average score equating to agree or strongly agree in this area likely meant that a participant believes that his/her school has effective practices relative to active shooter incident drills and practice.

Teacher Preparedness Sub-Scale

Four items (24-27) were designed to measure participants' perceptions about their own ability to respond effectively to an active shooter incident. The participants answered the questions based on their own beliefs in their abilities and used the previously described Likert Scale with a possible score of 1-4 for each question. An overall average score equating to agree or strongly agree in this area likely meant that a participant believed he/she is able to respond effectively to an active shooter incident.

Principal Preparedness as Viewed by Teacher Sub-Scale

Seven items (28-34) were designed to gather information pertaining to a teacher's perceptions of their principal's preparedness to respond to an active shooter incident. These questions may provide insight regarding a relationship between a teacher's perceptions of their own ability to respond to an active shooter incident and their perceptions of their principal's ability to respond to an active shooter incident. The participants answered the questions using the previously described Likert Scale with a possible score of 1-4 for each question. An overall average score equating to agree or strongly agree in this area likely meant that a participant believed that his/her principal would respond effectively to an active shooter incident.

Open-ended Constructed-Response Item

There was one item in this sub-scale (35A-D). This question was designed to gather information from the participants related to their perceptions regarding barriers in Mississippi public high schools in preparing for active shooter incidents. This question was divided into the following response prompts: school resources, scheduling coordination, facilities and security.

Instrument Reliability and Validity

To ensure that the instrument was valid, a panel of experts was convened to determine whether the survey was appropriate and the items asked aligned with the goals of the research. The panel consisted of a former state school superintendent, a former district superintendent, a school resource officer, a school safety director, and a curriculum director. The validity questionnaire to which the panel members responded is attached as Appendix E. Responses from this questionnaire were evaluated by the researcher and advisors, and necessary changes were made to the instrument.

Once the IRB approved the study, reliability of the instrument was determined through a pilot study of the approved instrument. The study included a small number of participants determined by the researcher and advisors. Upon completion of the pilot study, necessary changes were made to the instrument. The statistical program SPSS was used to analyze data from the pilot study. Cronbach's alpha was used to test the reliability of the instrument. An adequate Cronbach's alpha was attained for each subscale. Table 1 provides the Cronbach's alpha for each subscale.

Table 1

Pilot Study - Cronbach's alpha for Planning, Practice/Drills, Teacher Preparedness and Principal Preparedness as Viewed by Teacher Subscales

Subscale	Cronbach's alpha
Planning	.721
Practice/Drills	.859
Teacher Preparedness	.788
Principal Preparedness as Viewed by Teacher	.860

Data Collection Procedure

The researcher sent letters to the superintendents of the representative sample chosen by the researcher and advisor asking permission to survey high school teachers in their respective districts. The letter explained the purpose of the research and that permission must be granted in order for teachers in the sample to participate in the study. The superintendent's consent was acknowledged through his/her signature on a related form on school district letter head. The researcher compiled all the returned permission letters, included them in the application for IRB approval, and kept them on file.

Once IRB approval was granted, the researcher contacted high school principals in preparation for sending out the instrument. The researcher recruited a school contact person at each high school. This contact person distributed the instrument to teacher participants. Upon completion of the survey, each participant returned the survey to the

contact teacher in a sealed envelope. The contact teacher then returned the survey to the researcher via the enclosed self-addressed box. All participants in the study received an informed consent document explaining how the instrument will be used (Appendix C). They were also informed that no personal identification information was requested on the instrument, and that their responses would remain confidential and be used only for the purposes of this study. The letter made clear the fact that the respondent's completion of the instrument indicated his/her consent to participate. The researcher set a timetable of two weeks in which participants received and had the opportunity to complete the instrument.

The data collected were viewed only by the researcher and her committee members. The superintendents, school contact persons, and the participants in the study were provided with the researcher's contact information in case they had any questions. The participants were also informed that although their school responses would not be identifiable, they could obtain a copy of the results by contacting the researcher.

Analysis of Data

The statistical program SPSS was used for the analysis of quantitative data collected from respondents. Descriptive statistics (frequency, mean, standard deviation) were run on the background item data (questions 1-9) and all the variables within the study. The descriptive statistics allowed the researcher to draw conclusions gathered regarding the participants in the study. The information gathered from the instrument provided data necessary to determine the descriptive statistic for teachers' perceptions of planning (questions 10-16), practice/drills (questions 17-23), teacher preparedness (questions 24-27), and principal preparedness as viewed by teacher (question 28-34).

Correlational statistics were used to address Research Question 4 and related Hypothesis 1, Research Question 5 and related Hypothesis 2, and Research Question 7 and related Hypothesis 3.

Results from the open-ended constructed response item (35 A-D) were analyzed using a thematic code development and grounded theory. Thematic code development is a process in which data are grouped into themes selected by the researcher. According to Bowen (2006), Grounded Theory was developed by Strauss & Corbin and “is derived inductively through the systematic collection and analysis of data pertaining to a phenomenon” (p. 2). As survey responses were reviewed, the responses were studied to see if there were any emerging themes in terms of scheduling time for active shooter preparedness training, resources and funding for active shooter preparedness training, management and conditions of facilities, and the presence of school security.

SPSS was used to analyze all data in the study with the exception of the open-ended constructed response item. A Cronbach’s alpha test was used to determine the final reliability of the subscales within the instrument following full implementation of the study. An adequate Cronbach’s alpha was attained within each subscale and are provided in Table 2.

Table 2

Final Study - Cronbach's alpha for Planning, Practice/Drills, Teacher Preparedness and Principal Preparedness as Viewed by Teacher Subscales

Subscale	Cronbach's alpha
Planning	.945
Practice/Drills	.959
Teacher Preparedness	.903
Principal Preparedness as Viewed by Teacher	.976

Summary

The physical and emotional impact of a school shooting on students and staff can disrupt the learning environment for months or even years following a school shooting incident. Research supports that schools should train their staff members to respond effectively to an active shooter incident (Badzmierowski, 2011; Brunner & Lewis, 2006; Estep, 2013; Greenberg, 2007; Hull, 2000; Schuster, 2009). However, there is little information available that outlines exactly how teachers should be trained for such incidents and who should be involved in the training process.

The instrument used in this study attempted to identify areas of strength and weakness in the preparation of Mississippi high school teachers to respond effectively to active shooter incidents. The findings from this study will hopefully lead to information that may be used in creating effective response plans for active shooter incidents.

Students should not be afraid to go to school or be fearful that a teacher is not prepared to respond effectively in the event of an active shooter incident.

CHAPTER IV

RESULTS

The purpose of this study was to investigate teachers' perceptions of their ability to respond effectively to an active shooter incident in their school. The study was conducted in October 2014. The "Active Shooter Preparedness Training Survey" was mailed to 1,248 public high school teachers across the state of Mississippi, and 418 were returned. This represented a response rate of 33%. The participants were asked to complete demographic items, one open-ended item with four prompts and an instrument that consisted of selected-response items in four sub-scales: Planning, Practice/Drills, Teacher Preparedness, and Principal Preparedness as Viewed by Teacher

Background Items

The participants were asked to indicate their number of years teaching. The largest proportion of participants were teachers with 20 or more years of experience (28.9%), followed by teachers with 6-10 years of experience (23.5%), and teachers with 11-15 years of experience (20.4%). The participants were asked to indicate the region of the state where they currently teach. The majority of participants were from the southern region of the state (61.3%), followed by the northern region (22.0%) and the central region (16.7%) Table 3 provides frequencies and percentages for these data.

Table 3

Frequencies and Percentages of Number of Years Teaching, and Region Where Teaching, (N=418)

Variable	Frequency	Percentage
Number of Years Teaching		
1 year	12	2.9
2-5 years	60	14.4
6-10 years	98	23.5
11-15 years	85	20.4
16-19 years	41	9.8
20 or more years	121	28.9
No Response	1	.2
Region Where Teaching		
Northern	92	22.0
Central	70	16.7
Southern	256	61.2

The participants were asked to report the student population size for their schools. The largest proportion of participants taught at schools with 1001-2000 (37.8%) students, followed by those with 500 students or less (33.7%), and by those with 501-1000 students (25.4%). The participants were asked to report the proportion range of students who

received free or reduced price lunch. The largest proportion (40.7%) reported that 51-75% of their students received free or reduced price lunch. This was followed by 36.1% who reported that their school had 76-100% of students who receive a free or reduced price lunch. The largest proportion of participants (43.5%) reported their school's performance status as a B rating, which equates to the status of a High Performing School, followed by those reporting a C rating (25.8%). The latter designation is for school with the status of Successful. Table 4 provides frequencies and percentages for these data.

Table 4

Frequencies and Percentages of School Identification (N=418)

Variable	Frequency	Percentage
Student Population		
500 or less	141	33.7
501-1000	106	25.4
1001-2000	158	37.8
2001-3000	7	1.7
3000 or more	2	.5
No Response	4	1.0

Table 4 (continued).

Variable	Frequency	Percentage
Students Who Receive Free or Reduced Price Lunch		
0-25%	9	2.2
26-50%	57	13.6
51-75%	170	40.7
76-100%	151	36.1
No Response	31	7.4
School Performance Status		
A school	74	17.7
B school	182	43.5
C school	108	25.8
D school	42	10.0
F school	4	1.0
No Response	8	1.9

Participants were asked to report the number of times they practiced active shooter incident drills. The largest proportion of participants (48.3%) reported they practiced drills 1-2 times per year. This was followed by 13.4% of participants who reported that they practiced 3 or more times per year. The remaining participants (35.9%) reported they did not practice active shooter incident drills at all. The

participants were also asked to report how often their active shooter incident protocol was updated. The majority of participants (60.8%) reported they did not know how often their active shooter incident protocol was updated. This was followed by 29.2% of participants who reported that their active shooter incident protocol was updated 1 time a year and 1.4% of participants who reported that their active shooter incident protocol was updated 2 times a year. The remaining participants (8.4%) selected the N/A response item. Table 5 provides frequencies and percentages for these data.

Table 5

Frequencies and Percentages of Active Shooter Incident Drill Practice, and Active Shooter Incident Protocol Update (N=418)

Variable	Frequency	Percentage
Active Shooter Incident Drill Practice		
0 times per year	150	35.9
1-2 times per year	202	48.3
3 or more times per year	56	13.4
No Response	10	2.4

Table 5 (continued).

Variable	Frequency	Percentage
How Often Active Shooter Protocol Is Updated		
1 time a year	122	29.2
2 times a year	6	1.4
Don't Know	254	60.8
N/A	35	8.4
No Response	1	.2

The participants were asked if their school employs a full-time school resource officer. Of those who completed surveys, 357 participants (85.4%) reported that their school district employs a full-time school resource officer and 60 (14.4%) reported their school does not employ a full-time school resource officer. The last item in the demographic section of the instrument asked participants if the resource officer at their school provides any training to teachers related to active shooter incident preparedness. Of the surveys completed, 174 participants (41.6%) reported their school resource officer provided training to teachers related to active shooter incident preparedness, and 182 participants (43.5%) reported their school resource officer does not provide any training to teachers related to active shooter incident preparedness. Table 6 provides frequencies and percentages for these data.

Table 6

Frequencies and Percentages of School Resource Officer Employment and Training Provided to Teachers by the School Resource Officer (N=418)

Variable	Frequency	Percentage
School Resource Officer Employment		
Yes	357	85.4
No	60	14.4
No Response	1	.2
Training Provided by School Resource Officer		
Yes	174	41.6
No	182	43.5
No Response	62	14.8

Descriptive Statistics for Hypothesis Variable Subscales

Following the demographic items on the instrument, the participants were asked to provide responses within four subscales: planning, practice/drills, preparedness, and principal preparedness as viewed by teacher. These subscales were related to Research Question 1 (preparedness), Research Question 2 (planning), Research Question 3 (practice and drills), and Research Question 6 (administrator's preparedness as viewed by teacher). Participants were asked to respond to each item in the subscales using a Likert scale response. The results of the analyses for each subscale are reported below.

The first subscale, Planning, consisted of seven items regarding the participants' perceptions of the planning for active shooter incidents provided by their schools. This subscale was used to answer Research Question 2, "What are the perceptions of teachers regarding planning in preparation for active shooter incidents?" The participants were asked to choose the response that best described their perceptions of the planning provided by their school. The Likert scale was as follows: 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree. The response of Don't Know did not receive a value in the calculation of statistics for the subscale. An adequate Cronbach's alpha (0.95) was attained for this subscale.

The overall mean of the subscale was 3.23 on a 1-4 point scale, which indicates that participants agreed that their schools have plans in place to respond to an active shooter incident. Item 16 of the planning subscale, "I believe it is important to routinely update active shooter incident procedures" had the highest mean ($M=3.61$, $SD=0.69$) of all the items in the planning subscale. Item 11 of the planning subscale, "My school works cooperatively with local emergency personnel in developing a crisis plan for active shooter incidents" had the second highest mean ($M=3.33$, $SD=0.89$) of all the items in the planning subscale. Item 14 of the planning subscale, "My school's planning procedures for active shooter incidents are effective" had the lowest mean ($M=2.96$, $SD=0.99$) of all the items in the planning subscale. The means reported in the table below are ordered from highest to lowest. Table 7 provides means and standard deviations for these data.

Table 7

Descriptive Statistics for Planning Subscale (N=418)

Planning	Item	Mean	Std. Deviation	
	I believe it is important to routinely update active shooter incident procedures.	16	3.61	0.69
	My school works cooperatively with local emergency personnel in developing a crisis plan for active shooter incidents.	11	3.33	0.89
	My school has a crisis plan addressing procedures for handling active shooter incidents.	10	3.32	0.84
	My school has a crisis team in place.	12	3.26	0.90
	I know where to access information about my school's official procedures in case of an active shooter incident.	15	3.16	0.99

Table 7 (continued).

Planning	Item	Mean	Std. Deviation
I have a copy of my school's active shooter response procedures.	13	3.05	1.08
My school's planning procedures for active shooter incidents are effective.	14	2.96	0.99
Overall		3.23	0.75

Note: Minimum =1.00, Maximum =4.00; 1.00= Strongly Disagree, 2.00=Disagree, 3.00= Agree, 4.00 = Strongly Agree

The second subscale, Practice/Drills, consisted of seven items regarding teachers' perceptions of practice and drills for active shooter incidents provided by their school. This subscale was used to answer Research Question 3, "What are the perceptions of teachers regarding practice and drills in preparation for active shooter incidents?" The participants were asked to choose the response that best described their perceptions of the practice/drills provided by their school. The Likert scale was as follows: 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Disagree. The response of Don't Know did not receive a value in the calculation of statistics for the subscale. An adequate Cronbach's alpha (0.96) was attained.

The overall mean of the subscale was 2.68 on a 1-4 point scale, which indicates that, overall, participants are uncertain that their school's practice and drills are effective for active shooter incidents. Item 17 of the Practice/Drills subscale, "The possibility of a

school shooting incident is taken seriously at my school” had the highest mean ($M=3.17$, $SD=0.90$) of all the items in the Practice/Drills subscale. Item 18 of the Practice/Drills subscale, “My school provides instruction sessions about live active shooter incident preparedness to staff” had the second highest mean ($M=2.71$, $SD=1.03$) among the items in the Practice/Drills subscale. Item 19 of the Practice/Drills subscale, “My school provides classroom instruction sessions about live active shooter incident preparedness to students” had the lowest mean ($M=2.38$, $SD=1.00$). The means reported in the table below are ordered from highest to lowest. Table 8 provides means and standard deviations for these data.

Table 8

Descriptive Statistics for Practice and Drills Subscale (N=418)

Practice and Drills	Item	Mean	Std. Deviation
The possibility of a school shooting is taken seriously at my school.	17	3.17	0.90
My school provides instruction sessions about live active shooter incident preparedness to staff.	18	2.71	1.03
My school’s active shooter incident drills are effective.	23	2.68	1.01
My school provides drills for students in order to practice active shooter incident preparedness.	22	2.64	1.01

Table 8 (continued).

Practice and Drills	Item	Mean	Std. Deviation
My school provides drills for staff in order to practice active shooter incident preparedness.	21	2.60	1.04
The classroom instruction portion of our active shooter incident preparedness is effective.	20	2.50	1.02
My school provides instruction sessions about live active shooter incident preparedness to students.	19	2.38	1.00
Overall		2.68	0.87

Note: Minimum =1.00, Maximum =4.00; 1.00= Strongly Disagree, 2.00=Disagree, 3.00= Agree, 4.00 = Strongly Agree

The third subscale, Preparedness, consisted of four items regarding the participants' perceptions of their preparedness for an active shooter incident at their school. This subscale was used to answer Research Question 1, "What are teachers' perceptions of their own preparedness to respond effectively to an active shooter incident?" The participants were asked to choose the response that best described their perceptions of their preparedness in responding effectively to an active shooter incident. The Likert scale was as follows: 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Disagree. The response of Don't Know did not receive a value in the calculation of statistics for the subscale. An adequate Cronbach's alpha (0.90) was attained for this subscale.

The overall mean of the subscale was 2.93 on a 1-4 point scale which indicates the participants agree slightly they are prepared to respond effectively to an active shooter incident at their school. Item 26 of the preparedness subscale, “I am confident that I can control my classroom in the event of an active shooter incident” had the highest mean ($M=3.16$, $SD=.78$) of all the items in the preparedness subscale. Item 24 of the preparedness subscale, “I am confident in my ability to respond appropriately in the event of an active shooter incident in my school” had the second highest mean ($M=3.00$, $SD=.89$) of all the means in the preparedness subscale. Item 27 of the preparedness subscale, “I am confident that I can protect my students in the event of an active shooter incident” had the third highest mean ($M=2.93$, $SD=.87$) of all the items in the preparedness subscale. Item 25 of the preparedness subscale, “I have received adequate training and have the professional knowledge to respond effectively in the event of an active shooter incident in my school” had the lowest mean ($M=2.70$, $SD=.99$) of all the means in the preparedness subscale. The means reported in the table below are ordered from highest to lowest. Table 9 provides means and standard deviations for these data.

Table 9

Descriptive Statistics for Teacher Preparedness Subscale (N=418)

Teacher Preparedness	Item	Mean	Std. Deviation
I am confident that I can control my classroom in the event of an active shooter incident.	26	3.16	0.78
I am confident in my ability to respond appropriately in the event of an active shooter incident at my school.	24	3.00	0.89
I am confident that I can protect my students in the event of an active shooter incident.	27	2.93	0.87
I have received adequate training and have the professional knowledge to respond effectively in the event of an active shooter incident at my school.	25	2.70	0.99
Overall		2.93	0.79

Note. Minimum =1.00, Maximum =4.00; 1.00= Strongly Disagree, 2.00=Disagree, 3.00= Agree, 4.00 = Strongly Agree

The fourth subscale, Principal Preparedness as Viewed by Teacher, consisted of seven items regarding teachers' perceptions of their principals' ability to respond effectively to an active shooter incident. This subscale was used to answer Research Question 6, "To what degree do teachers perceive that their administrators are prepared to respond effectively to an active shooter incident?" The participants were asked to choose

the response that best described their perceptions of their principal's preparedness in responding effectively to an active shooter incident. The Likert scale was as follows: 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Disagree. The response of Don't Know did not receive a value in the calculation of statistics for the subscale. An adequate Cronbach's alpha (0.98) was attained for this subscale.

The overall mean was 3.02 on a 1-4 point scale. This indicates that teachers agree that their principals are prepared to respond appropriately to an active shooter incident in their school. Item 34 on the subscale, "My principal knows the necessary materials he/she needs to have with him/her in the event of an active shooter incident" had the highest mean ($M = 3.34$, $SD = .82$) of all the items in the subscale. Item 32 on the subscale, "My principal handles crisis situations swiftly and confidently" had the second highest mean ($M = 3.25$, $SD = .80$) of all the items on the subscale. Item 31 on the subscale, "My principal plans training activities for staff regarding active shooter incident preparedness and response" had the lowest mean ($M = 2.71$, $SD = 1.01$) of all the items in the subscale. The means reported in the table below are ordered from highest to lowest. Table 10 provides means and standard deviations for these data.

Table 10

*Descriptive Statistics for Principal Preparedness as Viewed by Teacher Subscale**(N=418)*

Principal Preparedness As Viewed by Teacher	Item	Mean	Std. Deviation
My principal knows the necessary material he/she needs to have with them in the event of an active shooter incident.	34	3.34	0.83
My principal handles crisis situations swiftly and confidently.	32	3.25	0.80
My principal is knowledgeable about current practices in active shooter incident preparedness and response.	30	3.25	0.85
My principal has strong leadership qualities in school crisis preparedness.	33	3.22	0.86
My principal is well-prepared to respond to an active shooter incident.	29	3.09	0.93

Table 10 (continued).

Principal Preparedness As Viewed by Teacher	Item	Mean	Std. Deviation
My principal participates fully in active shooter training sessions.	28	3.01	0.98
My principal plans training activities for staff regarding active shooter incident preparedness and response.	31	2.71	1.01
Overall		3.02	0.84

Note. Minimum =1.00, Maximum =4.00; 1.00= Strongly Disagree, 2.00=Disagree, 3.00= Agree, 4.00 = Strongly Agree

Hypotheses Results

Hypothesis 1

Hypothesis 1 stated: “The perceptions of teachers regarding planning are related to their perceptions of their own preparedness to respond effectively to an active shooter incident.” This hypothesis addressed Research Question 4 which asked: “Are the perceptions of teachers regarding planning related to their perceptions of their own preparedness to respond effectively to an active shooter incident?” A Pearson Correlation test was done to determine if there was any linear correlation between planning and preparedness. The data revealed a coefficient of $r(405) = .650, p < .001$. The hypothesis was accepted. There is a strong positive correlation between the planning that schools provide and teachers’ perceptions of their preparedness to respond effectively to an active shooter incident. This suggests that the more confident teachers were about

their school's planning procedures, the more prepared they perceived themselves to be able to respond to an active shooter incident.

Hypothesis 2

Hypothesis 2 stated: "The perceptions of teachers regarding practice and drills are related to their perceptions of their own preparedness to respond effectively to an active shooter incident." This hypothesis addressed Research Question 5, which asked: "Are the perceptions of teachers regarding practice and drills related to their perceptions of their own preparedness to respond effectively to an active shooter incident?" A Pearson Correlation test was done to determine if there was any linear correlation between practice and drills and preparedness. The data revealed a coefficient of $r(402) = .702$, $p < .001$. The hypothesis was accepted. There is a strong positive correlation between the practice and drills that teachers do and their perceptions of their preparedness to respond to an active shooter incident. This suggests that teachers who participate in practice and drill activities provided by their school are more likely to believe that they are capable of responding effectively to an active shooter incident

Hypothesis 3

Hypothesis 3 stated: "The perceptions of teachers regarding their administrators' preparedness to respond effectively to an active shooter incident are related to their perceptions of their own preparedness to respond effectively to an active shooter incident." This hypothesis is related to Research Question 7 which asked: "Are the perceptions of teachers regarding their administrators' preparedness to respond to an active shooter incident related to their perceptions of their own preparedness to respond effectively to an active shooter incident?" A Pearson Correlation test was done to

determine if there was any linear correlation between teachers' perceptions of their administrators' preparedness and their own preparedness to respond effectively to an active shooter incident. The data revealed a coefficient of $r(375) = .750, p < .001$. The hypothesis was accepted. There is a strong positive correlation between the perceptions teachers have of their administrators' preparedness and their perceptions of their own preparedness to respond effectively to an active shooter incident. The data suggest that teachers who perceive that their administrators are prepared to respond effectively to an active shooter incident are more likely to perceive themselves as being prepared to respond effectively to an active shooter incident.

Open-Ended Constructed Response Item

Item 35 of the instrument was developed by the researcher in order to allow the researcher to gain deeper insights into teachers' perceptions regarding their preparedness for active shooter incidents. The researcher analyzed the data associated with the four prompts in this item by reading through the responses and looking for themes related to teacher perceptions of scheduling time for active shooter preparedness training and drills, resources/funding for active shooter preparedness training and drills, the condition and management of school facilities, and the presence of school security. The four prompts stated above were given to teachers and listed as 35A, 35B, 35C, and 35D respectively (see Appendix D). The analysis from the four prompts is presented below and separated according to positive and negative responses.

Prompt 1

Item 35A asks: "What problems does your school face in terms of scheduling time for active shooter preparedness training and drills?" This item was designed to gain

deeper insight into the perceptions of teachers regarding problems their schools face in this area. The following responses regarding this prompt are reported below.

Positive responses. Some teachers reported that their schools do take time to prepare for active shooter incidents. Some of the positive comments provided by the teachers include: “None [no problems] to be spoken of, we do one [drill] at the beginning of each semester;” “We normally have training at the beginning of the school year;” “I don’t know that we have problems with scheduling time. We go over this [active shooter training] at staff development meetings;” “We do training and drills – no problem;” “I don’t feel there is a problem because it [active shooter training] is seen as a priority;” “no problems-we have routine drills throughout the school year and procedures are updated during faculty/staff in-service training;” “We have at least 3 drills per year;” “District is planning a training event”.

Negative responses. Many teachers reported that their schools do have some type of training in terms of crisis management, but many stated that drills and training specifically related to active shooter incidents are nonexistent or infrequent and are not a priority. Some of the negative comments provided by the teachers include: “We have infrequent training & drills due to scheduling conflicts;” “We are just not prepared;” “No knowledge of how to handle a situation of this magnitude. Scheduling isn’t even thought of;” “We have to have the training first;” “Testing requirements seem to be more of a focus during faculty meetings rather than safety;” “Not enough time without interrupting instructional time in class;” “Most training for staff centers around Common Core and state tests;” “Curriculum training takes precedence over everything;” “No training has been offered to staff or students;” “We have discussed active shooters in meetings but

have not had an active shooter drill;” “I have never been trained on what to do for an active shooter. I feel like I should be trained on what to do and how to respond;” “Our school needs to simulate this event;” “No [problems], we have plenty of time. No one is willing to take the initiative to do it;” “We practice the same drill every time – we are notified ahead of time – predictable, not very realistic;” “More drills need to be done to become better prepared”.

Prompt 2

Item 35B asks: “What problems does your school face in terms of resources/funding for active shooter preparedness training and drills?” This item was designed to gain deeper insight into the perceptions of teachers regarding problems their schools face in this area. The following responses regarding this prompt are reported below.

Positive responses. There were some teachers who reported that their schools have the resources/funding to provide training and drills for active shooter incidents. Some of the positive comments provided by the teachers include: “We have funds & resources for training and drills;” “I think we have been trained and have spared no expenses on safety of our students but a drill is a drill – NO way to prepare fully for a real event;” “Don’t really know where funding comes from but is adequate;” “I believe we have or can easily acquire the resources we need;” “We work closely with county sheriff dept.,” “No problems that I am aware of” “We have the adequate resources in this school district to provide the necessary training for school shootings;” “Not aware of funding issues;” “I have not seen any problems;” “I don’t think it takes much funding for our drills;” “Sheriff dept. comes during drills. I’m sure they donate their time”.

Negative responses. Many teachers reported that the lack of resources/funding could pose a problem in the event of an active shooter incident. In addition, many teachers also reported that they have no knowledge of where their school's resources/funding for active shooter incident training comes from. Some of the negative comments provided by the teachers include: "We have the resources available, although they may not be utilized effectively or appropriately;" "Very limited resources;" "money a constant issue;" "Funding would have to come from other sources;" "not enough training or funding;" "funding is limited;" "Our staff has not discussed resources and funding for active shooter preparedness;" "As a poor district, administration spends more of its resources on consultant groups than student health and safety;" "Budget crunch is the biggest problem;" "not enough money;" "I do not know where funding comes from;" "I do not know, but I would assume [funding is] minimal;" "I don't know the cost for such drills;" "[There] should be money provided since money is used for much more unnecessary business;" "No resources or funds are available;" "There should be more money for school resource officer to train staff;" "There is no money".

Prompt 3

Item 35C asks, "What problems does your school face in terms of the condition and management of school facilities?" This item was designed to gain deeper insight into the perceptions of teachers regarding problems their schools face in this area. The following responses regarding this prompt are reported below.

Positive responses. Some teachers reported that their schools do have adequate management and facilities. Some of the positive comments provided by the teachers include: "adequate to fit the needs for drills and preparation;" "School facilities are

great;” “condition of the school is efficient;” “In my opinion, our school district, as far as being in danger of a shooter, is very low. This does not mean it can’t happen though;” “There have been a few updates installed; such as an emergency exit window;” “Our school facilities are always clean and clear, which would make it relatively easy to detect a person/student out of place;” “Our facilities are well maintained;” “Doors are locked and all visitors must go to [the] office before they can go anywhere else in school;” “None – facilities automatically lock between classes not allowing anyone in;” “problems with our facilities have been identified and corrected;” “Generally there is great cooperation in this area;” “Our school is certainly taking steps to improve security/readiness;” “Excellent;” “Not an issue;” “Great”.

Negative responses. Many teachers reported that the management and the condition of their school facilities were not adequate and could pose a problem in the event of an active shooter incident. Some of the negative comments provided by the teachers include: “This is our BIGGEST issue;” “Our campuses have many outside entrances that are unlocked for much of the day. Roads and pathways through the campus also make these entrances easily accessible;” “There are several unsecured locations where an intruder could enter EASILY without detection;” “Administration is aware of several doors that don’t lock, and they have yet to repair them;” “Gates are supposed to be locked as well as doors into buildings. Seldom happens;” “Lack of emergency exit availability;” “The condition of the school is a problem b/c visitors/intruders have access to school grounds...they could really hurt a lot of students due to the openness of our campus and building structures;” “The conditions and management of school facilities, in my opinion, could use more security features;” “The

management and procedures at school are inconsistent;” “do not feel that they are adequate to effectively protect [students and staff] if we were to have this type of incident;” “terrible!, even on weekends students are roaming the campus;” “Too many ways to enter the buildings;” “There are many ways to access the hallways without having to enter the office first;” “Our campus is old & most doors do not lock. It would be very easy to walk right in & shoot whomever you wanted;” “Our campus is extremely vulnerable. We have no fences, we have no way of knowing who may be on our campus at any given time;” “our school is trying to maintain its campus but has a long way to go;” “Doors and the back side of campus are not monitored;” “School layout is prime for an active shooter...too many access points;” “can be managed with proper instruction and drills;” “Some security features(communication systems, cameras, etc.) could be updated”.

Prompt 4

Item 35D asks: “What problems does your school face in terms of the presence of school security?” This item was designed to gain deeper insight into the perceptions of teachers regarding problems their schools face in this area. The following responses regarding this prompt are reported below.

Positive responses. Many teachers reported that school security is present and effective. Some of the positive comments provided by the teachers include: “We have a full-time security officer;” “Our school has a resource officer on campus at all times;” “Resource officers are readily accessible;” “The presence of school security is high. We see him up and down the halls all day. And when he is needed, he comes running;” “District has 5 schools & 4 school police officers (ample);” “We have an officer on

campus who has been highly trained;” “Full-time police officer on campus daily;” “armed police on duty;” “He’s here every day!;” “School officers and administrators are generally present;” “Good presence;” “Security is present daily & active on campus;” “There is adequate security in the event of an emergency;” “We have a great city officer who is here with us daily;” “School security is visible and effective;” “Constant;” “Very good;” “We have a school resource officer who monitors the building as well as digital monitoring;” “The presence of security is visible;” “Full-time officer and police are very visible;” “The school resource officer and the amount of administrator presence helps with feeling of security”.

Negative responses. Many teachers reported that the presence of school security in their school is not adequate and that the absence of adequate security could pose a problem in the event of an active shooter incident. Some of the negative comments provided by the teachers include: “School security is present daily, but teachers have limited interaction with them unless a true threat is presented;” “More training is needed;” “Need resource officers;” “Our campus isn’t very secure so security is an issue;” “The campus is very open and anyone can walk on our campus from any direction;” “We have 1 resource officer for two campuses together and 1 campus on the other side of town;” “I feel everyone would feel safer if we had a security officer. However, I am quite certain the funds are not available;” “They are limited [security personnel] – if someone were to come into my classroom, I feel I would be on my own for awhile [*sic*];” “never see our security officer during the day;” “Our SRO has 5 schools he is responsible for. Therefore, he is not always seen;” “No school security;” “One officer on campus can’t be everywhere;” “School utilizes a part-time security officer and

not a trained law enforcement officer for on-campus security;” “We have a security guard that carries no weapon;” “School security does not exist;” “I rarely see them except at events like football games, graduation;” “We do not have camera monitoring;” “Needs improvement;” “Inconsistent – rarely seen & shared at multiple campuses;” “Not pervasive enough-his presence is not intimidating or frequent enough to make a statement;” “Only one officer for over 1,000 students;” “almost nonexistent – we have an officer assigned to our school but I never see him in the halls or on campus unless there’s trouble;” “The presence of school security is limited;” “We do not have any and that is a shame. School security is needed;” “It would be helpful to have more school security, but funding will not allow for this;” “Presence could be more visible;” “Teachers and administrators are our school security”.

Ancillary Findings

The researcher elected to examine additional relationships among study variables. A one-way ANOVA was performed to see if the number of times a year teachers practiced active shooter incident drills was related to their perceptions of their own preparedness, their perceptions of their principal’s preparedness, and the perceptions of the planning provided by their school. Participants who reported they practiced active shooter drills three or more times a year had the highest means of all teachers in teacher preparedness ($M=3.15$, $SD=.875$), principal preparedness ($M=3.24$, $SD=.888$), and planning ($M=3.42$, $SD=.801$). Participants who reported they practiced active shooter drills one to two times a year had the second highest means of all teachers in teacher preparedness ($M=3.10$, $SD=.706$), principal preparedness ($M=3.21$, $SD=.760$), and planning ($M=3.34$, $SD=.665$). Participants who reported they never practiced active

shooter drills had the lowest means of all teachers in teacher preparedness ($M=2.65$, $SD=.772$), principal preparedness ($M=2.68$, $SD=.794$), and planning ($M=2.96$, $SD=.782$).

Table 11 provides the means and standard deviations.

Table 11

Number of times active shooter drills are practiced vs. perceptions of teacher preparedness, principal preparedness and planning

Variable		N	Mean	Std. Deviation
Drills	0 times per year	140	2.12	.756
	1-2 times per year	198	2.93	.722
	3 or more times per year	56	3.23	.877
Preparedness	0 times per year	145	2.65	.772
	1-2 times per year	198	3.11	.707
	3 or more times per year	56	3.15	.875
Principal	0 times per year	130	2.68	.795
	1-2 times per year	184	3.22	.760
	3 or more times per year	54	3.24	.888
Planning	0 times per year	142	2.96	.782
	1-2 times per year	198	3.34	.666
	3 or more times per year	56	3.43	.802

Summary

This study of the perceptions of teachers regarding their ability to respond effectively to an active shooter incident included 418 high school teachers from 24 high schools in Mississippi. The data were collected in October of 2014. The quantitative data collected were analyzed using the statistical program SPSS. The open-ended constructed response item of the instrument was analyzed using thematic code development and grounded theory. The data were used to identify the perceptions of teachers' ability to respond effectively to an active shooter incident based on their perceptions of their schools' planning procedures, perceptions of their schools' practice and drills, perceptions of their own preparedness, and perceptions of their principal's preparedness.

The open-ended constructed response item asked the participants to respond to four prompts. The item asked: "What problems does your school face in terms of preparing teachers to respond effectively to an active shooter incident?" The four prompts were: teacher perceptions of scheduling time for active shooter incident training and drills, teacher perceptions of resources/funding for active shooter preparedness training and drills, teacher perceptions of the condition and management of school facilities, and teacher perceptions of the presence of school security. Chapter V will offer a discussion of these results, implications for policymakers and educational leaders, and further research recommendations.

CHAPTER V

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The principal goal of this research study was to determine whether teachers in Mississippi believe that their school districts adequately train them to respond effectively to an active shooter incident in their schools. This study examined teacher perceptions of their ability to respond effectively to an active shooter incident based on their perceptions of their school's planning, their perceptions of their school's drills and practice, their perceptions of their own preparedness, and their perceptions of their principal's preparedness. Participants from 24 high schools in Mississippi were asked to complete a survey instrument entitled the Active Shooter Preparedness Training Survey (ASPTS). Their responses to this survey instrument produced quantitative and qualitative data for this study. Included in this chapter are a summary of the procedures and findings, a discussion of the results, and recommendations for policymakers, school administrators, and future research.

Summary of Procedures

The data collected in this research study were acquired from 418 surveys that were completed by high school teachers in Mississippi. The researcher utilized a panel of experts to review the instrument for validity. Permission to conduct the study was provided by 45 school district superintendents. After superintendent approval, the researcher secured permission to conduct the study from The University of Southern Mississippi's Institutional Review Board (IRB). The researcher was then able to secure permission from 24 high school principals to conduct the study with their teachers. Prior to conducting the final study, a pilot study was conducted to test the reliability of the

survey instrument. An adequate Cronbach's alpha for each subscale was obtained in the pilot study.

The survey instruments were mailed to teachers during October of 2014. A contact teacher was identified at each high school and given the task of distributing, collecting, and returning the surveys during October of 2014. Once the surveys were received, the researcher numbered each survey in the order that it was received and entered it into the statistical program SPSS data base for analysis. The data from the open-ended constructed response item were analyzed using grounded theory and thematic code development.

Major Findings

This section recaps the major findings of the study. The majority of participants (61.2%) were from the southern region of the state. The largest proportion of participants (28.9%) reported having 20 or more years of teaching experience. Participants were asked to identify the student population of their school. The largest proportion of participants (37.8%) reported that their student population was 1001-2000 students. In order to gain a sense of the socio-economic status of participating schools, the researcher asked participants to report the number of students who receive free or reduced price lunch. The largest proportion of participants (40.7%) reported that 51-75% of the students in their schools received a free or reduced price lunch. With respect to school performance status, participants with the largest proportion (43.5%) reported their school's designation as a B rating which equates to a status of high performing.

The following data collected from the background items are of particular interest. Participants were asked to report the number of times they practiced active shooter

incident drills and how often their active shooter incident protocol is updated. The largest proportion of participants (48.3%) reported that they practiced active shooter incident drills 1-2 times per year, followed by 35.9% of participants that reported they never practiced active shooter incident drills. In regards to updating active shooter incident protocols, the majority of participants (60.8%) reported that they do not know how often their school updates their active shooter incident protocol, followed by 29.2% who reported their protocol is updated 1 time per year. The instrument also asked participants if their school employed a full-time school resource officer (SRO) and if the SRO provided any training to teachers related to responding effectively to an active shooter incident. The majority of participants (85.4%) reported that their school employs a full-time SRO. However, only 43.5% of those participants stated that the SRO at their school provided training in preparation for an active shooter incident.

Results from the study also included descriptive data for responses related to four subscales: teacher planning, practice and drills, teacher preparedness, and principal preparedness to respond effectively to an active shooter incident. Research Question 1 asked: “What are teachers’ perceptions of their own preparedness to respond effectively to an active shooter incident?” The third subscale of the survey instrument, entitled Teacher Preparedness, asked the participants to respond to four items related to their perceptions of their preparedness to respond to an active shooter incident using a Likert scale. The Likert scale was based on a 1-4 point scale with strongly disagree receiving a rating of 1 and strongly agree receiving a rating of 4. The mean for this subscale was 2.93, which suggests that teachers agree slightly that they are prepared to respond to an active shooter incident.

It is useful to examine responses to some of the individual items in this and other subscales. Item 26 of the Teacher Preparedness subscale stated: “I am confident that I can control my classroom in the event of an active shooter incident.” This item of the subscale had the highest mean ($M=3.16$) which suggests that teachers agree that they can control their classroom in such circumstances. The lowest mean ($M=2.70$) of the Teacher Preparedness subscale was Item 25 which stated: “I have received adequate training and have the professional knowledge to respond effectively in the event of an active shooter incident at my school.” The mean response to this item suggests that there is some uncertainty among teachers that their school districts provide them with appropriate training.

Research Question 2 asked: “What are the perceptions of teachers regarding planning in preparation for active shooter incidents?” The first subscale of the survey instrument, entitled Planning, asked the participants to respond to seven items related to their perceptions of the planning their schools provide to prepare them to respond effectively to an active shooter incident using the previously described Likert scale. The mean for this subscale was 3.23, which suggests that teachers perceive that there is adequate planning for an active shooter incident. Among individual items, Item 16 of the Planning subscale, which stated: “I believe it is important to routinely update active shooter incident procedures,” had the highest mean ($M=3.61$). This suggests that teachers strongly agree that it is important to update such procedures. Item 14 of the subscale stated: “My school’s planning procedures for active shooter incidents are effective.” This item had the lowest mean ($M=2.96$). This data suggests that teachers agree slightly that these procedures are effective.

Research Question 3 stated: “What are the perceptions of teachers regarding practice and drills in preparation for active shooter incidents?” The second subscale of the survey instrument, which was entitled Practice and Drills, asked the participants to respond to seven items related to their perceptions of the practice and drills their school provides to prepare them to respond effectively to an active shooter incident. Responses were provided on the previously described 1-4 point Likert scale. The mean for this subscale was 2.68, which suggests that teachers are uncertain that practice and drills are adequate.

Item 17 of the Practice and Drills subscale stated: “The possibility of a school shooting is taken seriously at my school.” This item of the subscale had the highest mean ($M=3.17$). This data suggests that teachers agree that the possibility of a school shooting is taken seriously. Item 18 of the Practice and Drills subscale stated: “My school provides instruction sessions about live active shooter incident preparedness to staff” and had the second highest mean ($M=2.71$). This data suggest that teachers are in some disagreement as to whether they are provided with active shooter incident preparedness instruction. Item 19 of the Practice and Drills subscale stated: “My school provides instruction sessions about live active shooter incident preparedness to students.” This item had the lowest mean ($M=2.38$). This data suggest that teachers are ambivalent about the degree to which their school provides such instruction to students.

Research Question 6 stated: “To what degree do teachers perceive that their administrators are prepared to respond effectively to an active shooter incident?” The fourth subscale, which was entitled Principal Preparedness as Viewed by Teacher, asked participants to respond to seven items related to their perceptions of their principal’s

ability to respond effectively to an active shooter incident using the previously described 1-4 point Likert scale. The mean for this subscale was 3.02, which suggests that teachers agree that their school administrators are prepared to respond effectively to an active shooter incident.

Again, it is instructive to consider responses to some of the individual items. Item 34 of the survey instrument stated: “My principal knows the necessary material he/she needs to have with them in the event of an active shooter incident.” This item had the highest mean ($M=3.34$). This data indicates that teachers agree that their principals know the materials that are needed in such circumstances. Item 31 of the survey instrument stated: “My principal plans training activities for staff regarding active shooter incident preparedness and response.” This item had the lowest mean ($M=2.71$). This data suggest that teachers are not in agreement their principals plan such training. The response to this item is consistent with the results of other elements of the survey that addressed the adequacy of training related to active shooter incidents.

Results related to the hypotheses also provided valuable information. Research Question 4 was supported by Hypothesis 1 which stated: “The perceptions of teachers regarding planning are related to their perceptions of their own preparedness to respond effectively to an active shooter incident.” The results of a Pearson correlation test revealed that there is a strong relationship between the school’s planning activities and the teacher’s level of confidence about responding effectively to an active shooter incident.

Research Question 5 was supported by Hypothesis 2 which stated: “The perceptions of teachers regarding practice and drills are related to their perceptions of

their own preparedness to respond effectively to an active shooter incident.” The results of a Pearson correlation test revealed that there is a strong relationship between the practice and drill activities in which teachers participate and their level of confidence in responding effectively to an active shooter incident.

Research Question 7 was supported by Hypothesis 3, which stated: “The perceptions of teachers regarding their administrators’ preparedness to respond effectively to an active shooter incident are related to their own perceptions of their preparedness to respond effectively to an active shooter incident.” The results of a Pearson correlation test revealed that there is a strong relationship between teachers’ perceptions of their principal’s ability to respond effectively to an active shooter incident and their perceptions of their own ability to respond effectively to an active shooter incident.

The data collected from the open-ended constructed response item revealed important information that corroborated the results from the quantitative data. The constructed-response item asked participants to respond to four prompts related to the problems their schools face in terms of scheduling time for preparedness training and drills for active shooter incidents, resources and funding available for training and drills for active shooter preparedness, the condition and management of their schools, and the presence of school security. Prompt responses were divided into positive and negative statements.

When asked about the problems faced by their schools regarding scheduling time for active shooter training and drills, some participants conveyed that their schools did take time to prepare teachers for active shooter incidents. The following participant’s

responses were representative of the positive comments. One participant stated: “no problems-we have routine drills throughout the school year and procedures are updated during faculty/staff in-service training.” Another participant stated that, “We go over this [active shooter training] at staff development.” In contrast, some teachers reported that their drills are infrequent or non-existent. The following participants’ responses were representative of the negative responses. One participant stated: “More drills need to be done to become better prepared.” Another participant stated: “I have never been trained on what to do for an active shooter. I feel like I should be trained on what to do and how to respond.”

The second prompt asked participants to discuss the problems that their schools face in terms of resources and funding for training and drills related to active shooter incident preparedness. Some of the participants stated that their schools do have resources and funding to train staff regarding active shooter response. The following participants’ responses were representative of the positive responses. One participant stated: “We have funds & resources for training and drills.” Another participant stated: “We have the adequate resources in this school district to provide the necessary training for school shootings.” In contrast, some participants reported that their schools either do not have the resources or funding to provide training to staff for active shooter incidents, or that their resources and funding are used for other types of training. The following participants’ responses are representative of the negative responses. One participant stated: “No resources or funds available.” Another participant stated: “As a poor district, administration spends more of its money on consultant groups than student health and safety.”

The third prompt asked participants to respond to problems that their schools faced in terms of the condition and management of their schools. Some teachers reported that their schools were in good condition and that the management of their schools was effective. The following responses were representative of the positive responses. One participant stated: “Our facilities are well maintained.” Another participant stated: “Our school facilities are always clean and clear, which would make it relatively easy to detect a person/student out of place.” In contrast, some teachers reported that their schools had problems in this area. The following responses were representative of the negative responses. One participant stated: “School layout is prime for an active shooter...too many access points.” Another participant stated: “The management and procedures at school are inconsistent.”

The last prompt asked participants to respond to problems their schools faced in regard to the presence of school security. Several teachers reported that their school has effective school security. The following responses are representative of the positive responses. One participant stated: “The presence of school security is high.” Another participant stated: “The school resource officer and the amount of administrator presence helps with feeling of security.” In contrast, some participants expressed concern about the presence of school security. The following responses are representative of the negative responses. One participant stated: “They are limited [security personnel] – if someone were to come into my classroom, I feel I would be on my own for awhile [*sic*].” Another participant stated: “School security is present daily, but teachers have limited interaction with them unless a true threat is presented. More training is needed.”

The ancillary findings revealed that participants who engaged in active shooter preparedness training three or more times a year were more likely to perceive themselves as better prepared to respond effectively to an active shooter incident than participants who engaged in preparedness training 0-2 times per year. This corroborates the data from the other findings in the study that suggest that the more training teachers have in active shooter preparedness response, the more confident they will be in their ability to respond effectively in the event of a live active shooter incident.

While there was tepid agreement that planning is effective, that teachers are prepared, and that administrators are prepared for such incidents, the findings related to practice, drills, and training suggest greater cause for concern. As evidenced by the related Practice and Drills subscale mean of 2.68, the relatively low number of drills (36% reported no drills), and the means for related items in the teacher preparedness and principal preparedness subscales (Items 25 and 31), teachers were not in agreement about the adequacy of such preparatory activities. Several interesting findings were revealed in the background and descriptive data and were corroborated by the open-ended constructed response item and will be discussed in the next section.

Discussion

It is important to note that this study reported the perceptions of teachers' abilities to respond effectively to an active shooter incident. Therefore, conclusions drawn regarding teachers' actual abilities to respond effectively to an active shooter incident should be made with caution. Research is plentiful in the area of school violence, especially school shootings. However, there has not been much research conducted in the area of teacher preparedness for school shooting incidents. It is imperative that

teachers receive appropriate and effective training in the event of a school shooting incident.

Schunk (1995) reported that having high self-efficacy is not the only predictor of a positive outcome. Knowledge and skills must be present as well. Due to the caring and fostering nature of the teaching profession, it makes sense that teachers want to believe they would be able to respond effectively to an active shooter incident. However, the lack of training for an event of this magnitude leaves teachers at a dangerous disadvantage. Item 25 from the Teacher Preparedness subscale of the survey instrument revealed that teachers are unsure if the training they have had is effective. Item 14 in the Planning subscale of the survey instrument revealed that teachers only slightly agreed that their schools have effective planning procedures for active shooter incidents. Participants also expressed uncertainty in relation to conducting instruction sessions about live active shooter incidents for staff (Item 21) and students (Item 19). Lack of planning and preparation will put teachers in a situation they are not prepared for in the event of an active shooter incident.

The items from the survey instrument coincided with responses from the open ended constructed response item and with extant literature. Some teachers agreed that they need training to prepare themselves for an active shooter incident; however, their administrators put more emphasis on other types of training related to testing and student achievement issues than on safety issues. Research has shown that when school districts train personnel to respond appropriately to a school shooting, loss of life may be minimized (Cornell & Sheras, 1998; Estep, 2013; MacNeil & Topping, 2007; Trump, 2009). Research also supports that teachers with prior violence prevention training were

more confident in their preparedness to respond to acts of school violence when compared to teachers who had not had any training in violence prevention (Craig et al., 2011).

The four items in the Teacher Preparedness subscale deserve attention. These items asked participants to rate their responses related to their perceptions of their preparedness to respond effectively to an active shooter incident. The overall mean for this subscale was 2.93. Interestingly, teachers slightly agreed that they can control their classrooms and respond appropriately in the event of an active shooter incident, but expressed uncertainty as to whether or not they had adequate training and professional knowledge to respond effectively and could protect their students in the event of an active shooter incident. It would appear that teachers want to believe they are capable of protecting their students and responding effectively to an active shooter incident, but they are unsure if they have the adequate training to do so. It is also important to note that in the Principal Preparedness as Viewed by Teacher subscale, teachers agreed that their principals are prepared to respond to an active shooter incident, but when asked if their principals provided them with training activities, they were uncertain if their principals provided training.

It is interesting to note that many participants reported in the constructed-response item (35D) that they believed the presence of school security personnel would be beneficial in improving school security. Item 8 of the survey instrument revealed that 85.4% of participants reported that their school employed a full-time SRO. However, 43.5% of those participants reported that their SRO did not provide any type of training for teachers regarding active shooter incident preparedness. If a school district employs a

full-time school resource officer, it seems logical that the SRO would provide teachers with active shooter preparedness training.

Such findings present cause for concern. It is clear from the ancillary finding of a significant relationship between the number of times participants engaged in active shooter training and the perceptions of their ability to respond to an active shooter incident, that such practice impacts teachers' confidence about handling such incidents. The data revealed that participants who engaged in training three or more times a year perceived themselves to be more prepared than participants who engaged in training less than three times a year.

Aside from the finding that teacher confidence in their ability to respond is related to the number of times active shooter preparation drills take place, there is the issue of compliance with state law. Item 17 of the survey instrument revealed that participants agreed that the possibility of a school shooting is taken seriously. Yet, Item 6 of the survey instrument revealed that 35.9% of participants stated their school did not practice active shooter incident drills at all. This is contradictory and disturbing information. Not conducting intruder drills is a violation of Mississippi Education Law Section 37-11-5 which reads: "...It shall be the further duty of such principals and teachers to instruct pupils in all programs of emergency management as may be designated by the state department of education" (Laird, 2008, p. 24). School districts are required to conduct at least 2 lockdown/intruder drills per year. The 2013 Mississippi School Safety Educational Leadership Framework K-3 recommends at least 3 intruder drills per year (House, Drawdy, & MacNeill, 2013). Intruder drills can encompass active shooter drills, and there is no excuse for schools not conducting these drills.

In addition to instructing students in emergency preparedness, school districts are required to meet accreditation standards related to school safety. According to Robert Laird of the Mississippi Department of Education (MDE),

The School Safety Plan is essentially the foundation the school uses to maintain a safe and secure educational environment. The existence of a comprehensive school safety plan is a generally accepted standard of school safety, as well as, a mandatory requirement of Section 37-3-83, Mississippi Code of 1972, Annotated, and Mississippi Public School Accountability Standards (process standard number 37) (p. 3).

The safety plan states that schools must have a crisis response plan that includes specific staff response protocols for emergency situations and that teachers must be familiar with all aspects of the plan. The plan specifically includes armed and unarmed intruder situations.

An issue that was revealed in the constructed-response item was that many schools are spending their professional development funds on training related to academic issues. With the implementation of Common Core in Mississippi, many districts are focusing their efforts and money on training related to that. Although professional development is needed regarding academic issues, it is important that administrators also allocate funding for safety-related training. With current budget reductions and the lack of full funding for the Mississippi Adequate Education Program (MAEP), it is a challenging task for administrators to provide for all of the professional development needs of teachers. However, it is important that administrators recognize the necessity of training teachers to respond effectively to active shooter incidents. In the

event of a real emergency, test scores are not going to spare anyone, but the immediate, correct response of a teacher may save a life or lives.

Limitations

The findings of this study were limited by several factors. Participant sites were limited to 24 high schools in Mississippi, and the sample size produced 418 respondents. Although that was an adequate number of schools and participants to yield useable results, it is a small representation of the number of high schools and teachers in the state. The study was also limited by the fact that only high school teachers participated in the study. Perhaps K-8 teachers would have different perceptions of their active shooter preparedness training based on the age, behaviors, and maturity level of their students compared to the age, behaviors, and maturity level of high school students.

None of the schools that participated in the study had actually experienced an active shooter incident. Information from teachers who actually experienced a school shooting could have provided additional insight into the training needs of teachers in order for them to respond effectively to an active shooter incident. Although it is not certain that this would have changed any of the results, it may have been beneficial to have these schools included in the study. The open-ended constructed response item did not contain any actual participant interviews, but relied only on short responses to an open-ended prompt. Perhaps participant interviews related to the four prompts would have provided more insight into the problems that schools face in those areas.

Recommendations for Policymakers and Practitioners

Unfortunately, school districts across the United States continue to experience school shootings. In fact, the U.S. has the highest number of school shootings among all

nations (Leuschner et al., 2011). Eaves (2011) recommended that school districts require each school to have a crisis response plan as part of effective planning and administration. MDE requires each school district to have a district level crisis plan and each school in the district to have a building level crisis plan. It is apparent from this study that some Mississippi high schools have a written crisis management plan that addresses active shooter incidents; however, it appears that some schools do not practice putting their plans into action. More comprehensive and more frequent safety audits should be conducted to ensure that plans have been developed and that they are up-to-date. Presently, safety audits in Mississippi public schools are conducted when a complaint is filed against a school district for a safety violation or when an incident such as a violent or weather related situation occurs (R. L. Smith, personal communication, January 12, 2015). In addition to verifying that a school has a crisis management plan that addresses active shooter incidents, it may be beneficial to conduct yearly audits that require the observation of active shooter incident drills by individuals who are qualified to rate the effectiveness of a school's practice and drill procedure.

It is evident from this study that there is room for improvement in the area of preparing teachers to respond effectively to an active shooter incident. In order for teachers to be trained to respond effectively to an active shooter incident, they should be informed and participate in training regarding their school's active shooter protocol. The data from this study revealed that participants only slightly agreed that their school's crisis plan addressed active shooter situations. In addition, participants were unsure if their school's procedures for active shooter incidents were effective, how often their active shooter protocol was updated, where to access information regarding their crisis

plan, and if their school worked in conjunction with local emergency personnel in responding to an active shooter incident.

It is obvious that teachers need more professional development that is focused on preparedness for active shooter incidents. Participants in the study stated they need more training. A closer look at the components of their current training is needed as well. As was stated previously, some teachers reported that they do not participate in any type of active shooter preparedness drills or training. Although research is limited in the area of preparing teachers for an active shooter incident, MDE, school administrators, school resource officers, and local law enforcement personnel should work together to develop comprehensive active shooter response plans for all Mississippi schools.

It seems apparent from this research that some school districts in Mississippi do not take safety issues seriously. Policymakers should hold schools more accountable in safety matters. It is easy for school districts to have a crisis plan on paper, but without the necessary training, teachers will not be prepared to implement the plan effectively. The nature of school shootings is such that the actual event typically happens very quickly. The shooting itself is often over before law enforcement can mobilize. This means in some situations that teachers are actually the “first responders” to a school shooting. Teachers have to make split second decisions regarding the safety of their students and themselves. In this situation there is no time to look for a manual to instruct them on what to do. Teachers need to have the knowledge and skills to respond appropriately in a matter of seconds. This automatic response only comes from proper training and practice. Without this training it is likely that a devastating outcome will occur.

In addition to being held accountable for academic achievement, administrators and teachers should be held accountable for ensuring the safety of students. Perhaps a rating system similar to the one used for academic accountability could be implemented. If schools are given a public safety rating, administrators may be more inclined and motivated to provide the essential training that teachers need in order to keep their students and themselves safe in the event of an actual school shooting incident or other violent incident.

Recommendations for Future Research

The following recommendations for future research arose from the findings of this study. Researchers interested in the topic of school safety, specifically teacher preparedness for active shooter incidents, could focus on one or more of the following recommendations:

1. It is recommended that research be conducted related to the specific training needs of teachers in preparation for active shooter incidents.
2. It is recommended that research be conducted related to the utilization of school resource officers in preparing teachers to respond effectively to an active shooter incident.
3. It is recommended that research be conducted related to teacher preparedness for active shooter incidents in K-8 settings. Teachers in the K-8 setting may have different perceptions and professional development needs related to active shooter incident preparedness.
4. It is recommended that this research be replicated with a nationwide sample. Teachers in other regions of the United States may have different perceptions and professional development needs related to active shooter incident preparedness.

5. It is recommended that research be conducted in the area of administrator preparedness for active shooter incidents. Administrators may have different perceptions regarding their professional development needs in relation to active shooter incident preparedness for themselves and their teachers.
6. It is recommended that research be conducted with schools that have experienced a school shooting. These schools can provide very pertinent, first-hand information regarding the training needs of teachers.
7. It is recommended that qualitative research be conducted with teachers in order to better discern their perceptions of their preparedness to respond to an active shooter incident. This type of research can provide deeper insights into teachers' specific needs for such training.

Summary

The purpose of this research study was to determine Mississippi high school teachers' perceptions regarding their preparedness for an active shooter incident. The study included an extensive literature review that included background and policy context, theoretical foundations, pertinent research and professional perspectives and a worldwide timeline of school shootings. The study also included data collection and analysis, results, conclusions, recommendations for policymakers and educational leaders, and recommendations for further research.

The quantitative data from four subscales (perceptions of their school's planning procedures, perceptions of their school's practice and drills, perceptions of their own preparedness, and perceptions of their principal's preparedness) were used to gain insight into teachers' perceptions of their abilities to respond effectively to an active shooter

incident. The Planning subscale of the survey instrument revealed that teachers agreed that their school's planning procedures for active shooter incidents are effective. The Practice and Drills subscale revealed that teachers were uncertain that their school's practice and drills for active shooter incidents are effective. The Teacher Preparedness subscale revealed that teachers agreed that they are able to respond effectively to an active shooter incident. The Principal Preparedness as Viewed by Teacher subscale revealed that teachers agreed that their principal is capable of responding to an active shooter incident, but were undecided as to whether or not their principal provided them with any training.

Analysis revealed a strong correlation between teacher's perceptions of their school's planning procedures and their perceptions of their ability to respond effectively to an active shooter incident. The more confident they were about their school's planning procedures, the more prepared they perceived themselves to be able to respond to an active shooter incident. Analysis further revealed a strong correlation between a teacher's participation in practice and drill activities and their perceptions of their ability to respond effectively to an active shooter incident. Lastly, analysis revealed a strong correlation between the perceptions teachers have of their administrator's preparedness to respond effectively to an active shooter incident and their perceptions of their own preparedness to respond effectively to an active shooter incident. The ancillary analysis revealed that the more practice and drill activities teachers participated in, the more prepared they perceived themselves to be for responding to an active shooter incident.

The qualitative data were divided into positive and negative responses to four prompts that were related to teacher's perceptions of their school's problems with

scheduling time for active shooter preparedness training, resources/funding for active shooter preparedness training, the condition and management of school facilities, and the presence of school security. Several participants stated that their schools scheduled time for active shooter incident preparedness; however, many participants stated their school never provided any active shooter incident preparedness training. These participants expressed a clear need for active shooter incident preparedness. Few participants stated that their schools had the funding and resources for active shooter preparedness training. Many participants stated their school either did not have the funding or resources to provide active shooter preparedness training or the funding was spent on other types of training not related to safety.

This study also included recommendations for policymakers and practitioners in order to better prepare teachers to respond effectively to an active shooter incident. These recommendations included changes in policy and practice at the state and local level. It was the goal of the researcher to provide research-based information to policymakers and school administrators regarding the importance of training teachers to respond effectively to active shooter incidents. Students should never be placed in a situation at school where they can be injured or harmed intentionally. It is the duty of policymakers and school administrators to take the necessary precautions to prevent that from happening.

APPENDIX A

IRB APPROVAL FORM

INSTITUTIONAL REVIEW BOARD

118 College Drive #5147 | Hattiesburg, MS 39406-0001

Phone: 601.266.5997 | Fax: 601.266.4377 | www.usm.edu/research/institutional.review.board

NOTICE OF COMMITTEE ACTION

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

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.

Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 14082801

PROJECT TITLE: Teacher's Perception of their Ability to Respond to an Active Shooter

PROJECT TYPE: New Project

RESEARCHER(S): Carole Rider

COLLEGE/DIVISION: College of Education and Psychology

DEPARTMENT: Educational Leadership and School Counseling

FUNDING AGENCY/SPONSOR: N/A

IRB COMMITTEE ACTION: Exempt Review Approval

PERIOD OF APPROVAL: 09/02/2014 to 09/01/2015

Lawrence A. Hosman, Ph.D.
Institutional Review Board

APPENDIX B

LETTER TO THE SUPERINTENDENT

Date
Name of Superintendent
Name of School District
Address

RE: Permission to conduct research study

Dear Superintendent _____:

My name is Carole Rider, and I am currently enrolled in the doctoral program at The University of Southern Mississippi. As part of my degree program in educational leadership, I am required to survey educators in the area of my research topic. The goal of my survey is to collect information regarding high school teachers' perceptions of their ability to respond effectively to an active shooter incident. The information I gather through my research will hopefully provide educational leaders, administrators, and fellow educators with insights into strategies for preparing teachers to respond effectively to active shooter incidents.

The purpose of this letter is to kindly request your permission to conduct my survey among the high school teachers in your district. If you agree to allow me to conduct my survey, the information gathered will be compiled with information provided by other high school teachers in other school districts across Mississippi. Please be assured that your district and your district's teachers will not be identified anywhere in my research.

Participants will be surveyed via postal mail. The survey will take place in September, 2014. Participation in this study is completely voluntary and confidential. Your approval to conduct this survey within your district will be greatly appreciated. Feel free to contact me if you have questions or concerns at 601-669-1995 or carole.rider@eagles.usm.edu. My committee chair is Dr. Michael Ward, and he can be contacted at mike.ward@usm.edu.

If you agree to my request, please sign the enclosed consent form and return it in the self-addressed stamped envelope provided.

Sincerely,

Carole Rider
Doctoral Candidate, The University of Southern Mississippi

Enclosures

Consent Form

By signing and returning this form, I give Carole Rider, a doctoral candidate at The University of Southern Mississippi, permission to conduct a research study in the _____ School District. I acknowledge that Ms. Rider may contact the building level administrator to discuss the most appropriate avenue to deliver consent forms and questionnaires to participants during September, 2014.

Approved by:

Please print your name and title above

Superintendent's signature

Date

APPENDIX C

INFORMED CONSENT LETTER

**The University of Southern Mississippi
118 College Drive #5147
Hattiesburg, Mississippi 39406-0001
(601) 266-6820**

Consent to participate in a Research Study**Date:****Title of Study: Teacher Preparedness for Active Shooter Incidents****Research will be conducted by: Carole Rider****Phone Number: (601) 669-1995****Email Address:****carole.rider@eagles.usm.edu****Faculty Advisor: Dr. Mike Ward**

What are some general things you should know about research studies?

Classroom teachers currently employed in a Mississippi public high school are being asked to take part in a research study. Participating in this study is voluntary. You may refuse to take part, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed with the intent to obtain new knowledge. This new information may help people in the future. You may not receive any direct benefit from being in this study. There also may be risks to being in research studies.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed decision about being in this research study.

You will be given the first three pages of this consent form and the researcher will keep the fourth sheet, which contains your signature. You should ask the researcher named above, or staff member who is assisting them through this process, any questions you have about this study at any time.

What is the purpose of this study?

The purpose of this study is to determine high school teachers' perceptions regarding their preparedness for an active shooter incident. The goal of this research is to identify strengths and weaknesses in active shooter preparedness training.

How many people will take part in this study?

If you decide to be in this study, you will be one of approximately 300 participants.

How long will your part in this study last?

If you chose to participate, you will be asked to read and sign a consent form and will also receive a survey that will take you no longer than 20 minutes to complete. Your name or identity will not be asked for within the survey, nor will your personal information be reflected anywhere within this research. A self-addressed, stamped envelope will also be provided in order to easily return the completed survey to the researcher. A report of my findings will be made available to you upon request at the conclusion of this study by emailing me at carole.rider@eagles.usm.edu.

What will happen if you take part in the study?

High school teachers willing to participate in this research will be asked to sign a consent form and fill out a survey. The researcher will collect data from the survey. Throughout the process of analysis, the researcher will keep the survey in a locked box. The survey and consent form will be shredded upon completion of this project.

What are the possible benefits from being in this study?

Findings are intended to provide potential assistance to school and state officials in creating and supporting training programs for preparing teachers to respond effectively to active shooter incidents. Your answers to the survey items will contribute to study findings that school administrators can take into account when addressing professional development needs, in their schools.

The results of this study could also potentially play a vital role by providing valuable insight that can be shared with persons involved in the educational system, including students, parents, teachers, administrators, educational professionals and policymakers. These insights could potentially bridge gaps in understanding the training needs of teachers in preparedness for active shooter incidents, thus resulting in enlightenment of administrators/policymakers regarding the needs of classroom teachers.

What are the possible risks or discomforts involved from being in this study?

The risks that may be involved in this study are that the participant may not feel comfortable providing feedback pertaining to his/her personal views regarding his/her own preparedness for an active shooter incident and the preparedness of his/her principal. These concerns may be allayed by the assurances of confidentiality for respondents that will be provided. Only the researcher and faculty advisors will view the participant responses. All responses will be kept secure and locked in the researcher's home. Questionnaires and consent forms will be destroyed after one year.

How will your privacy be protected?

Participants will not indicate their identities on the questionnaire. They will not be identified in any report or publication about this study. Only the researcher and her university faculty advisors will have access to these questionnaires. Questionnaires will be kept secure and locked in the researcher's home. Additionally, questionnaires and consent forms will be shredded after a year.

What if you have questions about this study?

You have the right to ask, and have answered, any questions you may have about this research. If you have questions, or concerns, you should contact the researcher listed on the first page of this form.

What if you have questions about your rights as a research participant?

This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820.

APPENDIX D

ACTIVE SHOOTER PREPAREDNESS TRAINING SURVEY

Background Questions

1) How long have you been teaching?

_____ 1 year

_____ 2-5 years

_____ 6-10 years

_____ 11-15 years

_____ 16-19 years

_____ 20 or more years

2) What region of the state do you currently teach in?

_____ Northern

_____ Central

_____ Southern

3) What is the student population of your school?

_____ 500 or less students

_____ 501 to 1000 students

_____ 1001 to 2000 students

_____ 2001 to 3000 students

_____ 3001 or more students

4) What percentage of students at your school receive a free or reduced price lunch?

_____ 0-25%

_____ 26-50%

_____ 51-75%

_____ 76-100%

5) What is your school's performance status?

_____ A (Star School)

_____ B (High Performing)

_____ C (Successful)

_____ D (Academic Watch)

_____ F (Failing)

6) How many times do you practice active shooter incident drills in your school?

_____ 0 times per year

_____ 1-2 times per year

_____ 3 or more times per year

7) How often is your active shooter procedure updated?

_____ 1 time a year

_____ 2 times a year

_____ Don't Know

_____ N/A

8) Does your school employ a full-time school resource officer?

_____ Yes

_____ No

9) If your school employs a school resource officer, does he/she provide in-service training pertaining to active shooter incident response procedures?

_____ Yes

_____ No

Planning	Strongly Disagree 1	Disagree 2	Agree 3	Strongly Agree 4	Don't know
10. My school has a crisis plan addressing procedures for handling active shooter incidents.					
11. My school works cooperatively with local emergency personnel in developing a crisis plan for active shooter incidents.					
12. My school has a crisis team in place.					
13. I have a copy of my school's active shooter response procedures.					
14. My school's planning procedures for active shooter incidents are effective.					
15. I know where to access information about my school's official procedures in case of an active shooter incident.					
16. I believe it is important to routinely update active shooter incident procedures.					

Practice/Drills	Strongly Disagree 1	Disagree 2	Agree 3	Strongly Agree 4	Don't Know
17. The possibility of a school shooting incident is taken seriously at my school.					
18. My school provides instruction sessions about live active shooter incident preparedness to staff .					
19. My school provides classroom instruction about live active shooter incident preparedness to students .					
20. The classroom instruction portion of our active shooter incident preparedness is effective					
21. My school provides drills for staff in order to practice active shooter incident preparedness.					
22. My school provides drills for students in order to practice active shooter incident preparedness.					
23. My school's active shooter incident drills are effective.					

Teacher Preparedness	Strongly Disagree 1	Disagree 2	Agree 3	Strongly Agree 4	Don't Know
24. I am confident in my ability to respond appropriately in the event of an active shooter incident in my school.					
25. I have received adequate training and have the professional knowledge to respond effectively in the event of an active shooter incident in my school.					
26. I am confident that I can control my classroom in the event of an active shooter incident.					
27. I am confident that I can protect my students in the event of an active shooter incident.					

Principal Preparedness as Viewed by Teacher	Strongly Disagree 1	Disagree 2	Agree 3	Strongly Agree 4	Don't Know
28. My principal participates fully in active shooter incident training sessions.					
29. My principal is well prepared to respond to an active shooter incident.					
30. My principal is knowledgeable about current practices in active shooter incident preparedness and response.					
31. My principal plans training activities for staff regarding active shooter incident preparedness and response.					
32. My principal handles crisis situations swiftly and confidently.					
33. My principal has strong leadership qualities in school crisis preparedness.					
34. My principal knows the necessary materials he/she needs to have with him/her in the event of an active shooter incident.					

35. What problems does your school face in terms of preparing teachers to respond effectively to an active shooter incident in terms of:

A) scheduling time for active shooter preparedness training and drills

B) resources/funding for active shooter preparedness training and drills

C) the condition and management of school facilities

D) the presence of school security

APPENDIX E

VALIDITY QUESTIONNAIRE

**Teacher Preparedness for Active Shooter Incidents
Validity Questionnaire**

Thank you for taking the time to review this instrument. I appreciate your willingness to give your expertise and assistance in the development of this instrument that will be used to gather data for this study. Your input is very important and will be used to make any necessary changes in order to more effectively meet the goal of the study.

The purpose of this instrument you are evaluating is to gather data from high school teachers regarding their preparedness for active shooter incidents in their schools. I hope this data will provide insight into the strengths and weakness of training teachers to respond effectively to an active shooter incident.

Please take your time and critique the attached questionnaire by answering either “Yes” or “No” to the questions below. Please provide feedback as well as your reasoning(s) behind any responses that receive a “No” on the lines provided.

1. Has the survey been developed with language that is easy to understand by the participants in this study? Yes _____ No _____

2. Does the survey address suitable issues that will allow the researcher to obtain pertinent information related to teacher preparedness for active shooter incidents?

Yes _____ No _____

3. Are there any particular items within the survey that you would modify?

Yes _____ No _____ (please identify item number(s) if you selected a "Yes" response)

4. Do you believe any of the survey items can be potentially offensive or invasive to the participant? Yes _____ No _____ (please identify item number(s) if you selected a "Yes" response)

5. Are there any items in the survey that you feel should be excluded?
Yes _____ No _____ (please identify item number(s) if you selected a "Yes" response)

6. Are there any survey items that you feel should be included that are **not** included in the attached questionnaire? Yes _____ No _____ (If you selected "Yes", please write your suggested statement(s) below.

7. Please feel free to provide any further suggestions or comments that you feel would strengthen the validity of this survey on the lines below.

REFERENCES

- Adams, C., & Kritsonis, W. A. (2006). An analysis of secondary schools. *National Journal for Publishing and Mentoring Doctoral Student Research*, 1(1), 1-7.
- Ala. student in school shooting case arrested in Dallas. (2012, April 14). Retrieved from <http://usatoday30.usatoday.com/news/nation/story/2012-04-14/alabama-school-shooting-arrest/54269770/>
- Alvarez, L. (2012, March 8). Florida prep school copes with shock and loss. *The New York Times*. Retrieved from http://www.nytimes.com/2012/03/09/us/shooting-shatters-jacksonville-prep-school-campus.html?_r=0
- Armed suspect stole car before killing Virginia Tech officer. (2011, December 9). Retrieved from <http://www.cnn.com/2011/12/09/justice/virginia-tech-incident/>
- Arrest in Germany school shooting. (2000, March 17). Retrieved from <http://www.apnewsarchive.com/2000/Arrest-in-Germany-School-Shooting/id-d80fe889fd53e0af8dc18b409af6cb46>
- Arrest in NYC school shooting. (2002, January 15). Retrieved from <http://www.cbsnews.com/news/arrest-in-nyc-school-shooting/>
- Astor, R. A., Meyer, H. A., & Behre, W. J. (1999). Unowned places and times: Maps and interviews about violence in high schools. *American Educational Research Journal*, 36(1), 3-42.
- Avila, J., Holding, R., Whitcraft, T., & Tribolet, B. (June, 2008, 11). *School shooter: "I didn't realize they would die"*. Retrieved from <http://abcnews.go.com/TheLaw/story?id=5040342>

- Badzmirowski, W. F. (2011). Managing a crisis: Considering human factors in crisis communication plans. *American School and University*, 83(8), 29-33.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. (9th ed.). New York, New York: W.H. Freeman and Company.
- Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 28, 9-44.
- “Bang bang I’m dead”: Marysville shooter Jaylen Fryberg’s ominous texts. (2014, November 20). Retrieved from <http://www.nbcnews.com/storyline/marysville-school-shooting/bang-bang-im-dead-marysville-shooter-jaylen-frybergs-ominous-texts-n252496>.
- Barron, J. (2013, October 25). Almost a year after massacre, Newtown begins razing sandy hook school. *The New York Times*. Retrieved from http://www.nytimes.com/2013/10/26/nyregion/almost-a-year-after-massacre-newtown-begins-razing-sandy-hook.html?_r=0
- Binder, J. (2012 December, 3). The Montreal massacre: Canada's feminists remember. <http://www.theguardian.com/world/2012/dec/03/montreal-massacre-canadas-feminists-remember>
- Blackburn, B. (2011, April 7). Retrieved from <http://abcnews.go.com/International/brazil-school-shooting-gunman-kills-12-children-reveals/story?id=13319050>

- Blair, J. P., & Martaindale, M. H. (2013). *United States active shooter events from 2000 to 2010: Training and equipment implications*. Informally published manuscript, Texas State University, San Marcos, TX, Retrieved from <http://alerrt.org/files/research/ActiveShooterEvents.pdf>
- Blumenfeld, S. (2012, May 10). After Columbine: Why school shooting still happen. *The New American*. Retrieved from http://www.thenewamerican.com/reviews/opinion/item/11327-after-columbine-why-school-shootings-still-happen?no_redirect=true
- Bomber, M. (2013). Secure and strong. *American School & University*, 85(6), 36-39.
- Borum, R., Cornell, D.G., Modeleski, W. & Jimerson, S. (2010). What can be done about school shootings? A review of the evidence. *Educational Researcher*, 39(1), 27-37. doi: 10.3102/0013189X09357620
- Bosnian Teenager Kills Teacher, Commits Suicide. (2002, April 29). Retrieved from http://www.setimes.com/cocoon/setimes/xhtml/en_GB/features/setimes/features/2002/04/020430-SVETLA-001
- Bosworth, K., Ford, L., & Hernandez, D. (2011). School climate factors contributing to student and faculty perceptions of safety in select Arizona schools. *Journal of School Health*, 81(4), 194-201.
- Bowen, G. A. (2006). Grounded theory and sensitizing concepts. *International Journal of Qualitative Methods*, 5(3), 1-12.
- Bowen, N. K., & Bowen, G. L. (1999). Effects of crime and violence in neighborhoods and schools on the school behavior and performance of adolescents. *Journal of Adolescent Research*, 14(3), 319-342.

- Boy dies in Sweden school shooting. (2001, January 18). Retrieved from <http://edition.cnn.com/2001/WORLD/europe/scandinavia/01/18/sweden.shooting/>
- Boy in school shooting may be tried as an adult. (2005, November 9). Retrieved from <http://www.nbcnews.com/id/9970713/>
- Brehm, E. (2000, April 28). *Michigan school shooting: A tragic consequence of us welfare "reform"*. Retrieved from www.wsws.org/en/articles/2000/04/welf-a28.html
- Brenner, D. (2008). Firearm Owners' Protection Act and the restoration of felons' right to possess firearms: Congressional intent versus notice. *University of Illinois Law Review*, 2008(3), 1045-1070.
- Brock, S.E., Sandoval, J., & Lewis, S. (2000). *Preparing for crises in schools: A manual for building school crisis response teams* (2nd ed.). Brandon, VT: Clinical Psychology.
- Broder, J. M. (2002, October 29). Student kills 3 instructors and himself at U. of Arizona. Retrieved from <http://www.nytimes.com/2002/10/29/us/student-kills-3-instructors-and-himself-at-u-of-arizona.html>
- Brown, B. (2006). Understanding and assessing school police officers: A conceptual and methodological comment. *Journal of Criminal Justice*, 34, 591-604.
doi:10.1016/j.jcrimjus.2006.09.013
- Brown, L.L. (2008) *The Role of Teachers in School Safety* (Doctoral Dissertation). The University of Southern Mississippi, Hattiesburg, Mississippi.

- Brown, R. (2012) Alabama: Ex-Professor Gets Life Term in Shooting. Retrieved from http://www.nytimes.com/2012/09/25/us/alabama-ex-professor-gets-life-term-in-shooting.html?ref=amybishop&_r=0
- Brown, R. P., Osterman, L. L., & Barnes, C. D. (2009). School violence and the culture of honor. *Psychological Science*, 20(11), 1400-1405.
- Brunner, J., & Lewis, D. (2005). A Safe School's Top 10 Needs. *Education Digest: Essential Readings Condensed for Quick Review*, 71(1), 21-24.
- Brunner, J., Lewis, D. (2006). Tabletop exercises can train all the staff for safety. *Education Digest*, 74(4), 46-49.
- Butler, K. (2007). Tragic lessons. *School Administration*, 43(5), 56-60.
- Caniglia, J. (2012, December 12). Court documents offer details about suspected Chardon High School shooter T.J. Lane, including goal of becoming psychologist. *The Plain Dealer*. Retrieved from http://www.cleveland.com/chardon-shooting/index.ssf/2012/12/court_documents_offer_details.html
- Caniglia, J. (2013, March 19). T.J. Lane sentenced to life in prison in Chardon High School shootings. *The Plain Dealer*. Retrieved from http://www.cleveland.com/chardon-shooting/index.ssf/2013/03/tj_lane_sentenced_in_chardon_h.html
- Casella, R., & Burstyn, J. (2002). Linking academics and social learning: Perceptions of school staff to a violence prevention program at an alternative school. *Journal of School Violence*, 1(1), 83-102.

- Cavallier, A. (2014, September 30). *Victim, suspected shooter identified in Albermarle High School shooting*. Retrieved from <http://myfox8.com/2014/09/30/one-shot-one-in-custody-at-albemarle-high-school/>
- Cawood, N. D. (2010). Barriers to the use of evidence-supported programs to address school violence. *Children and Schools, 32*(3), 143-149.
- Centers for Disease Control and Prevention. (2013a). *Youth violence: Using environmental design to prevent school violence*. Retrieved from website: <http://www.cdc.gov/>
- Centers for Disease Control and Prevention. (2013b). *Understanding school violence fact sheet*. Retrieved from website: www.cdc.gov/injury
- Chen, G. (2007). School disorder and school achievement: A study of New York City elementary schools. *Journal of School Violence, 6*(1), 27-43. doi: 10.1300/J202v06n01_03
- Chen, G., & Weikart, L.A. (2008). Student background, school climate, school disorder, and student achievement: An empirical study of New York City's middle schools. *Journal of School Violence, 7*(4), 3-20. doi: 10.1080/15388220801973813
- Cherian, J., & Jacob, J. (2013). Impact on self-efficacy on motivation and performance of employees. *International Journal of Business Management, 8*(14), 80-88.
- Clarridge, C. (2007, January 5). Answers elusive in Tacoma school shooting. *Seattle Times*. Retrieved from http://seattletimes.com/html/localnews/2003510434_shooting05m.html
- Clendenning, A. (2000, September, 26). 2 hurt in New Orleans school shooting. ABC News. Retrieved from <http://abcnews.go.com/US/story?id=95621>

- Clifton, G., & Timko, S. (2013, October 28). Nevada students return to school 1 week after shooting. *USA Today*. Retrieved from <http://www.usatoday.com/story/news/nation/2013/10/28/sparks-nevada-school-shooting/3285639/>
- Clines, F.X. (2002, January 17). 3 Slain at Law School; Student Is Held. *The New York Times*. <http://www.nytimes.com/2002/01/17/us/3-slain-at-law-school-student-is-held.html>
- Clouston, E., & Boseley, S. (2013, March 14). From the Archive: 14 March 1996: Sixteen children killed in Dunblane massacre. Retrieved from <http://www.theguardian.com/theguardian/2013/mar/14/dunblane-massacre-scotland-killing>
- College shooter obsessed with guns. (2006, September 15). Retrieved from <http://www.cbc.ca/news/canada/montreal/college-shooter-gill-obsessed-with-guns-1.589809>
- Collier, C. W. (2013). Gun control in America: An autopsy report. *Dissent*, 60(3), 81-86.
- Collins, C.L. (2007). Threat assessment in the post-columbine public school system: The use of crisis management plans in the public school sector as a means to address and mitigate school gun violence. *International Journal of Education Advancement*, 7(1), 46.
- Connor, T. (2014, June 19). School shooter Jared Padgett used army reservist brother's rifle. Retrieved from <http://www.nbcnews.com/news/us-news/school-shooter-jared-padgett-used-army-reservist-brothers-rifle-n135901>

- Conti, K., & Adams, D. (2012, February 12). N.H. reeling after school shooting. *The Boston Globe*. Retrieved from <http://www.bostonglobe.com/metro/2012/02/12/walpole-reeling-after-school-shooting/d4SupIams60tthsbphzOzH/story.html>
- Cornell, D., Sheras, P., Gregory, A., & Fan, X. (2009). A retrospective study of school safety conditions using the Virginia threat assessment guidelines versus alternative approaches. *School Psychology Quarterly*, *24*(2), 119-129. doi: 10.1037/a0016182
- Cornell, D. G., & Mayer, M. J. (2010). Why do school order and safety matter? *Educational Researcher*, *39*(1), 7-15. doi: 10.3102/0013189X09357616
- Cornell, D. G., & Sheras, P. L. (1998). Common errors in school crisis response: Learning from our mistakes. *Psychology in the Schools*, *35*(3), 297-307.
- Cornell University Law School (2014a.). *Legal Information Institute*. Retrieved from http://www.law.cornell.edu/wex/fifth_amendment
- Cornell University Law School. (2014b). *Legal Information Institute*. Retrieved from http://www.law.cornell.edu/wex/fourth_amendment
- Cozens, P. (2007). Public health and the potential benefits of crime prevention through environmental design. *NSW Public Health Bulletin*, *18*, 232-237.
- Cozens, P. (2007). Public health and the potential benefits of crime prevention through environmental design. *New South Wales Public Health Bulletin*, *18*(12), 232-237. doi: 10.1071/NB07025
- Craig, K., Bell, D., & Leschied, A. (2011). Pre-service teachers' knowledge and attitudes regarding school-based bullying. *Canadian Journal of Education*, *34*(2), 21-33.

- Crews, D.T. (2001). The case for emergency management as a profession. *Australian Journal of Emergency Management*, (16)2, 2-3.
- Crews, G. A., Crews, A. D., & Burton, C. E. (2013). The only thing that stops a guy with a bad policy is a guy with a good policy: An examination of the NRA's "national school shield" proposal. *American Journal of Criminal Justice*, 38, 183-199. doi: 10.1007/s12103-013-9202-x
- Cullen, D. (2009). *Columbine*. (1st ed.). New York, NY: Hachette Book Group.
- Curtis, S. P., & Weiner, J. (2013, December 5). Student shot at West Orange High; suspect in custody. *The Orlando Sentinel*. Retrieved from http://articles.orlandosentinel.com/2013-12-04/news/os-teen-shot-west-orange-high-20131204_1_bus-loop-student-shot-two-students
- Cusick, J. (1996, March 14). He must have chased the pupils all over the place, shooting at them till they fell. *The Independent*. Retrieved from <http://www.theguardian.com/theguardian/2013/mar/14/dunblane-massacre-scotland-killing>
- Daly, B. (2009, December 31). Quebec story of the decade: Dawson shooting (Sept. 13, 2006). Retrieved from <http://montreal.ctvnews.ca/quebec-story-of-the-decade-dawson-shooting-sept-13-2006-1.465746>
- Deadly shooting breaks out at Texas high school football field, killing 1. (2011, March 30). Retrieved from <http://www.foxnews.com/us/2011/03/30/shooting-breaks-texas-high-school-football-game-injuring-1/>
- Delaware shooting suspect: "I'm sorry." (2009, February 11). Retrieved from http://www.cbsnews.com/2100-201_162-3291101.html

deVise, D. (2011, December 8). Virginia Tech police officer, one other killed on campus.

The Washington Post. Retrieved from

http://www.washingtonpost.com/blogs/crime-scene/post/shots-fired-at-virginia-tech-campus/2011/12/08/gIQApjNafO_blog.html

Dewan, S., & Zezima, K. (2010). Twists multiply in Alabama shooting case. Retrieved

<http://www.nytimes.com/2010/02/15/us/15alabama.html?pagewanted=all&gwh=EC82C6BF325A193E3118D975C08DAD9D&gwt=regi>

Dinkes, R., Cataldi, E.F., Lin-Kelly, W., & Synder, T.D. (2007). *Indicators of school crime and safety: 2007* (NCES2008-021/NJC219553) Washington DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice.

Dodson, W. H. (2009). *If only I had known: A true story*. (1st ed.). Richardson, TX:

International Focus Press.

Dolan, S. (2000). *School violence*. Retrieved from

http://sitemaker.umich.edu/356.dolan/list_of_school_shooters

Domenech, B. (2013). The truth about mass shootings and gun control. *Commentary*,

135(2), 25-29.

Dougherty, C. (2009, March 11). Teenage gunman kills 15 at school in Germany. *The*

New York Times. Retrieved from

http://www.nytimes.com/2009/03/12/world/europe/12germany.html?_r=0

- Dreier, P. (2013). Massacres and movements: Challenging the gun industrial complex. *New Labor Forum (Murphy Institute)*, 22(2), 92-95. doi: 10.1177/1095796013482456
- Dwyer, J. (2009). Preparing for the unthinkable. *The Presidency*, 12(1), 38-41.
- Eagen, T. (1998, June 14). Where rampages begin: A special report; from adolescent angst to shooting up schools. *The New York Times*. Retrieved from <http://www.nytimes.com/1998/06/14/us/where-rampages-begin-special-report-adolescent-angst-shooting-up-schools.html?pagewanted=all&src=pm>
- Eaves, C. (2001). The development and implementation of a crisis response team in a school setting. *International Journal of Emergency Mental Health*, 3(1), 35.
- Eisenbraun, K. D. (2007). Violence in schools: Prevalence, prediction and prevention. *Aggression and Violent Behavior*, 12(4), 459-469.
- Erfurt massacre 'planned for months'. (2002, April 30). *BBC News*. Retrieved from <http://news.bbc.co.uk/2/hi/europe/1960170.stm>
- Erickson, P.W. (2010). Designing for security: Security and safety are critical for successful, healthful learning environments. *American School & University*, 82(6), 26-29
- Espelege, D. L., & Swearer, S. M. (2003). Research on school bullying and victimization: What we have learned and where do we go from here? *School Psychology Review*, 32, 365-384.
- Estep, S. (2013). Crisis planning: building enduring school-community relationships. *International Journal for Professional Educators*, 79(3), 13-20.
- Ex-student indicted in school shooting. (1992, September 17). *Lodi News-Sentinel*, p. 24.

- Faciane, V. (2009 May 19). Larose middle school gets increased security after Monday's shooting. *The Times-Picayune*. Retrieved from http://www.nola.com/news/index.ssf/2009/05/larose_middle_school_student_w.html
- Farris, D., & Tracy, D. (2013, July 5). *School shooting preparedness requires complex training*. Retrieved from http://www.emergencymgmt.com/templates/gov_print_article?iud=214389471
- Feinstein, D. (2013, January). *Summary of 2013 Feinstein assault weapons legislation*. Retrieved from http://www.feinstein.senate.gov/public/index.cfm/files/serve/?File_id=10993387-5d4d-4680-a872-ac8ca4359119
- Ferguson, C. J., Coulson, M., & Barnett, J. (2011). Psychological profiles of school shooters: Positive directions and one big wrong turn. *Journal of Police Crisis Negotiations, 11*, 141-158. doi: 10.1080/15332586.2011.581523
- Fifth girl dies after Amish schoolhouse shooting. (2006, October 3). Retrieved from <http://www.nbcnews.com/id/15105305/>
- Fifth teen dies following Marysville high school shooting. (2014, November 8). Retrieved from <http://www.komonews.com/news/local/Hospital-Boy-14-dies-2-week-after-Marysville-school-shooting-282006201.html>.
- Finkelhor, D., Turner, H., Ormrod, R., Hamby, S., & Kracke, K. U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention. (2009). *Children's exposure to violence: A comprehensive national survey*. Washington, DC: Bulletin.

Five hospitalized after 14-year-old goes on shooting rampage at Cleveland high school.

(2007, October 11). Retrieved from <http://www.foxnews.com/story/2007/10/11/5>

[hospitalized-after-14-year-old-goes-on-shooting-rampage-at-cleveland-high/](#)

Flores de Apodaca, R., Brighton, L. M., Perkins, A. N., Jackson, K. N., & Steege, J. R.

(2012). Characteristics of schools in which fatal shootings occur. *Psychological*

Reports, 110(2), 363-377. doi: 10.2466/13.16.PR0.110.2.363-377

Folks, K. H. (2008). *School-safety preparedness: A qualitative study of principals'*

perceptions of using a school-safety checklist. Purdue University. *ProQuest*

Dissertations and Theses, 185.

Four die in Argentina school shooting. (2004, September 28). Retrieved from

<http://www.cbsnews.com/news/4-die-in-argentina-school-shooting/>

Four killed in Argentina school shooting. (2004, September 28), Retrieved from

[http://www.foxnews.com/story/2004/09/28/four-killed-in-argentina-school-](http://www.foxnews.com/story/2004/09/28/four-killed-in-argentina-school-shooting/)

[shooting/](#)

Fox, C., & Harding, D. J. (2005). School shootings as organizational deviance. *Sociology*

of Education, 78(1), 69-97.

Fox, J. A., & Burstein, H. (2010). *Violence and security on campus: From preschool*

through college. (1st ed.). Santa Barbara, CA: Praeger.

Furlong, M., & Morrison, G. (2000). The school in school violence: Definitions and facts.

Journal of Educational and Behavioral Disorders, 8(2), 71-82.

Gabrielson, R. (2002). Student kills 3 profs, self. *The Daily Wildcat Online*. Retrieved

from http://wc.arizona.edu/papers/96/46/01_1.html

Galofaro, C., & Gilbert, D. (2010, August, 31). Gunman killed at Sullivan Central.

Retrieved from http://www.tricities.com/news/article_35434f30-00d3-522f-98f1-58f372591713.html

Garcia, C.A. (2003). School safety technology in America: Current use and perceived effectiveness. *Criminal Justice Policy Review, 14*, 30-54.

Geddes, L. (2009). School shootings: What kind of environment fosters a killer? *New Scientist, 201*(2700), 9.

Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review, 17*, 183-211.

Glaberson, W. (2000, August 6). Word for word/a killer's schoolmates; guns, mayhem and grief can flourish when good friends do nothing. *The New York Times*.

Retrieved from <http://www.nytimes.com/2000/08/06/weekinreview/word-for-word-killer-s-schoolmates-guns-mayhem-grief-can-flourish-when-good.html?ref=michaelcarneal>

Glick, W. H. (1985). Conceptualizing and measuring organizational and psychological climate: Pitfalls of multilevel research. *Academy of Management Review, 10*(3), 601-616. doi: 10.5465/AMR.1985.4279045

Goddard, R. D., & Goddard, Y. (2001). A multilevel analysis of the relationship between teacher and collective efficacy in urban schools. *Teaching and Teacher Education, 17*, 807-818.

Goldstein, S.A., Young, A., & Boyd, C. (2008). Relational aggression at school: Associations with school safety and social climate. *Journal of Youth Adolescence, 37*, 641-654. doi: 10.1007/s10964-007-9192-4

- Golgowski, N. (2013, December 04). Student in custody after shooting classmate outside Florida high school. *New York Daily News*. Retrieved from <http://www.nydailynews.com/news/national/student-shot-florida-high-school-argument-report-article-1.1537476>
- Golgowski, N. (2014, January 16). Mason Campbell, New Mexico school shooter, chose victims at random: Cops. *New York Daily News*. Retrieved from <http://www.nydailynews.com/news/national/new-mexico-school-shooter-chose-victims-random-police-article-1.1580998>
- Gottfredson. (1990). Developing effective organizations to reduce school disorder. In O. Moles (Ed.), *Student discipline strategies: Research and practice* (pp. 47-62). Albany, NY: State University of New York Press.
- Gottfredson, G.D., Gottfredson, D.C., Czeh, E.R., Cantor, D., Crosse, S.B. & Hantman, I. (2000). *A national study of delinquency prevention in schools* (Final Report, Grant No. 96-MU-MU-0008). Ellicott City, MD: Gottfredson and Associates, Inc.
- Graham, S. & Weiner, B. (1996). Theories and principals of motivation. In D.C. Berliner and R. Calfee (Eds.), *Handbook of educational psychology* (pp. 63-84). New York: Macmillan.
- Green, F. (2001, November 15). *Student takes hostages, then kills himself*. Retrieved from <http://www.keystosaferschools.com/CaroHostage111401.htm>
- Greenberg, S. F. (2007). Active shooters on college campuses: Conflicting advice, roles of the individual and first responder and, the need to maintain perspective. *Disaster Medicine and Public Health preparedness*, 1(S1), S57-S61.

- Gregory, A., Skiba, R.J., & Noguera, P.A. (2010). The achievement gap and the discipline gap: Two sides of the same coin? *Educational Researcher*, 39(1), 59-68. doi: 10.3102/0013189X9357620
- Grey, R. H. (2013, February 14). [Web log message]. Retrieved from <http://www.campussafetymagazine.com/Blog/Campus-Command-Post/Story/2013/02/Obama-and-the-NRA-Are-Both-Right-and-Wrong.aspx>
- Griffith, J. (2000). School climate as group evaluation and group consensus: Student and parent perceptions of the elementary school environment. *The Elementary School Journal*, 101(1), 35-61. doi: 10.1086/499658
- Grogger, J. (1997). Local violence and educational attainment. *Journal of Human Resources*, 32(4), 659-682. doi: 10.2307/146425
- Gronna, S., & Chin-Chance, S. A. (1995, April). *Effects of school safety and school characteristics on grade 8 achievement: A multilevel analysis*. Annual meeting of the American Educational Research Association, Montreal, Canada.
- Gun control overview: Prevalence of gun use and the regulatory response. (2013). *Congressional Digest*, 92(3), 3-5.
- Gunman kills himself after shooting spree. (2002, February 19). Retrieved from <http://news.bbc.co.uk/2/hi/europe/1828767.stm>
- Halawah, I. (2005). The relationship between effective communication of high school principal and school climate. *Education*, 126 (2), 334-355.
- Haber, B. (2003, April 15). Student shot to death at New Orleans high school. Retrieved from http://usatoday30.usatoday.com/news/nation/2003-04-14-school-shooting_x.htm

- Hale, J. E., Dulek, R. E., & Hale, D. P. (2005). Crisis response: Communication challenges. *Journal of Business Communication*, 42(2), 112-134. doi: 10.1177/0021943605274751
- Hanson, T.L., Austin, G., & Lee-Bayha, J. (2003). Student health risks, resilience, and academic performance: *Year 1 Report*. Los Alamitos, CA: WestEd.
- Hardy, D. T. (1986). The Firearms Owners' Protection Act: A historical and legal perspective. *Cumberland Law Review*, 17, 585-682.
- Hauser, C., & O'Connor, A. (2007, April 16). Virginia Tech shooting leaves 33 dead. *The New York Times*. Retrieved from http://www.nytimes.com/2007/04/16/us/16cnd-shooting.html?pagewanted=all&_r=0
- Hawes, C., & Wilson, T. (1992, November 24). Tilden tries to heal wounds: Counselors help students cope with fatal shooting. *Chicago Tribune*. Retrieved from http://articles.chicagotribune.com/1992-11-24/news/9204170368_1_metal-detectors-fatal-shooting-dice-game
- Henderson, G. (2013, December 21). 17-year-old Colorado school shooting victim Claire Davis dies . *The two-way: Breaking news from NPR*. Retrieved from <http://www.npr.org/blogs/thetwo-way/2013/12/21/256132697/17-year-old-colorado-school-shooting-victim-claire-davis-dies>
- Hernandez, T.J., & Seem, S.R. (2004). A safe school climate: A systematic approach and the school counselor. *Professional School Counseling*, 7(4), 256-262.
- Heverin, T., & Zach, L. (2012). Use of microblogging for collective sense-making during violent crises: A study of three campus shootings. *Journal of the American Society for Information and Technology*, 63(1), 34-47. doi: 10.1002/asi.21685

- Hewitt, D. T. (2011). Reauthorize, revise, and remember: Refocusing the No Child Left Behind Act to fulfill Brown's promise. *Yale Law & Policy Review*, 30, 169-186.
- High school senior kills fellow student. (1998, May 20). Retrieved from <http://articles.latimes.com/1998/may/20/news/mn-51760>
- Hong, J. S., Cho, H., Allen-Meares, P., & Espelage, D. L. (2011). The social ecology of the Columbine High School shootings. *Children and Youth Services Review*, 33, 861-868. Retrieved from 10.1016/j.chilyouth.2010.005
- House, L. J., Drawdy, L., & McNeill, S. Office of Safe and Orderly Schools, (2013). *Mississippi school safety educational leadership framework*. Mississippi Department of Education.
- Hull, B. (2000). The question is not if, but when. *American School and University*, 72(9), 68-69.
- Hysong, S. J., & Quinones, M. A. (1997). *The relationship between self-efficacy and performance: A meta-analysis*. Paper presented at the Twelfth Annual Conference of the Society for Industrial and Organizational Psychology, St. Louis, Missouri.
- Illescas, C., Rouse, K., & Bunch, J. (2007, October 10). Hostage horror. *The Denver Post*. Retrieved from http://www.denverpost.com/ci_4404879
- Jackman, T., Bruske, J., & Williams, C. (2009 December 9). Va. community college student held in campus shooting. *The Washington Post*. Retrieved from <http://www.washingtonpost.com/wp-dyn/content/article/2009/12/8AR200912083950.htm>

- Jennings, W. G., Khey, D. N., Maskaly, J., & Donner, C. M. (2011). Evaluating the relationship between law enforcement and school security measures and violent crime in schools. *Journal of Police Crisis Negotiations*, *11*(2), 109-121. doi: 10.1080/15332586.2011.581511
- Jewish school slayings suspect dead after France cops storm apartment, officials say. (2012, March 22). Retrieved from http://worldnews.nbcnews.com/_news/2012/03/22/10805444-jewish-school-slayings-suspect-dead-after-france-cops-storm-apartment-officials-say
- Johnson, I. M. (1999). School violence: The effectiveness of a school resource officer program in a southern city. *Journal of Criminal Justice*, *27*(2), 173-192.
- Johnson, K., & Toppo, G. (2006, October, 4). Attacks show 'threats...can come from anywhere'; Columbine massacre put troubled teens on radar, but adults are at risk too. *USA Today*, p. A2.
- Johnson, M.A. (2014). Officials Hail Hero Students in Seattle Pacific University Shooting. Retrieved from <http://www.nbcnews.com/news/crime-courts/officials-hail-hero-students-seattle-pacific-university-shooting-n124046>.
- Johnson, S. L. (2009). Improving the school environment to reduce school violence: A review of the literature. *Journal of School Health*, *79*(10), 451-465.
- Johnson, S.L., Burke, J.G., & Gielen, A.C. (2011). Prioritizing the school environment in school violence prevention efforts. *Journal of School Health*, *81*(6), 331-340.
- Johnson, S. L., Burke, J. G., & Gielen, A. C. (2012). Urban students' perceptions of the school environment's influence on school violence. *Children and Schools*, *34*(2), 92-102. doi: 10.1093/cs/cds016

- Johnson, T. (2013, December 10). [Web log message]. Retrieved from <http://mediamatters.org/blog/2013/12/10/23-gun-safety-victories-since-sandy-hook/197211>
- Kennedy, M. (2001). Teachers with a badge. *American School and University*, 73(6), 38-38.
- Kennedy, M. (2013). Behind locked doors. *American School & University*, 85(8), 22-25.
- Kimmel, M. S., & Mahler, M. (2003). Adolescent masculinity, homophobia, and violence: Random school shootings, 1982-2001. *American Behavioral Scientist*, 46(10), 1439-1458. doi: 10.1177/0002764203046010010
- Koenig, B. (2013, November 25). *Nearly a year after sandy hook, nation remains torn about what to do next*. Retrieved from <http://www.cnn.com/2013/11/25/politics/guns-sandy-hook-next/>
- Koon, D. (2008, December 4). A boy killer speaks. *Arkansas Times*. Retrieved from <http://www.arktimes.com/arkansas/a-boy-killer-speaks/Content?oid=934386>
- Kravitz, J. H., & Peluso, R. G. (1986). Crisis management training: preparing managers for mine emergency operations. In H. F. Disbury (Ed.), *Challenges and Opportunities: From Now to 2001*. Bethesda, Maryland: The Future World Society.
- Krisberg, K. (2007, March). School preparedness crucial for safety of children, communities. *The Nation's Health*, pp. 1, 20-21.
- Kurtis, B. (Producer) (2002). *Columbine: Understanding why* [DVD].
- Laird, R. O. School Safety Division. (2008). *Mississippi school safety manual*. Mississippi Department of Education.

- Langman, P. (2009). *Why kids kill: Inside the minds of school shooters*. (1st ed.). New York: Palgrave MacMillian.
- Larson, R. C., Metzger, M. D., & Cahn, M. F. (2006). Responding to emergencies: Lessons learned and the need for analysis. *Interfaces*, 36(6), 486-501. doi: 10.1287/inte.1060.0250
- Law Students Tackled Gunman, Held Him Down Until Police Arrived. (2002, January 17). Retrieved from <http://www.foxnews.com/story/2002/01/17/law-students-tackled-gunman-held-him-down-until-police-arrived/>
- Leamanczyk, L. (2012, February 10). *14-year-old shoots self at school in Walpole, New Hampshire*. Retrieved from <http://boston.cbslocal.com/2012/02/10/shooting-at-middle-school-in-walpole-new-hampshire/>
- Leary, M. R., Kowalski, R. M., Smith, L., & Phillips, S. (2003). Teasing, rejection and violence: Case studies of the school shootings. *Aggressive Behavior*, 29(3), 202-214. doi: 10.1002/ab.10061
- Lee, V. E., & Bryk, A. S. (1989). A multilevel model of the social distribution of high school achievement. *Sociology of Education*, 62(3), 172-192.
- Leung, R. (2007, December 5). *The mind of a school shooter*. Retrieved from http://www.cbsnews.com/8301-18559_162-611470.html
- Leuschner, V., Bondu, R., Schroer-Hippel, M., Panno, J., Neumetzler, K., Fisch, S.,...Scheithauer, H. (2011). Prevention of homicidal violence in school in Germany: The Berlin leaking project and the networks against school shootings project (NETWASS). *New Directions for Youth Development*, 129, 61-78. doi: 10.1002/yd.387

- Life term is urged to teacher killer. (1983, May 24). *Williamson Daily News*, p. 4.
- Lone gunman kills three in German rampage. (2002, February 19). *The Daily Mail*.
Retrieved from <http://www.dailymail.co.uk/news/article-101154/Lone-gunman-kills-German-rampage.html>
- Louie, D. (2011, May 12). SJSU homicide victims and shooter identified. Retrieved from <http://abclocal.go.com/kgo/story?id=8127113>
- MacNeil, W., & Topping, K. (2007). Crisis management in schools: Evidence based prevention. *Journal of Educational Inquiry*, 7(1), 64-94.
- Madden, T. J. (1974, December 30). Honor student on shooting spree kills 3, wounds 8 in Olean N.Y. *The Day*, p. 3.
- Martinez, E. (2011, January 6). *Omaha school shooting: Millard south high school shooter left disturbing Facebook post*. Retrieved from http://www.cbsnews.com/8301-504083_162-20027545-504083.html
- Mason, M. (2013, October 24). Nevada middle school shooter's name officially revealed. *The Los Angeles Times*. Retrieved from <http://articles.latimes.com/2013/oct/24/nation/la-na-sparks-shooter-20131025>
- McCabe, K. A., & Martin, G. A. (2005). School violence: 1974-2000. In *School Violence, the Media & Criminal justice responses*. New York, NY: Peter Lang Publishing, Inc.
- McCarthy, J. (2013, February 14). NIU remembers mass shooting. *The Chicago Tribune*. Retrieved from http://articles.chicagotribune.com/2013-02-14/news/chi-niu-remembers-mass-shooting-20130214_1_niu-enrollment-ryan-mace-catalina-garcia

- McConnell, A., & Drennan, L. (2006). Mission impossible? *Planning and preparing for a crisis. Journal of Contingencies and Crisis Management, 14*(2), 59-70. doi: 10.1111/j.1468-5973.2006.00482.x
- McEntire, D. A. (2004, June). *The status of emergency management theory: Issues, barriers, and recommendations for improved scholarship*. FEMA Higher Education Conference, Emmitsburg, Maryland.
- McEntire, D.A., & Marshall, M. (2003). Epistemological problems in emergency management: Theoretical dilemmas and implications. *American Society of Professional Emergency Planners Journal, 10*, 119-129.
- McGee, K. (2013, December 13). *How Texas school security has changed since Sandy Hook*. Retrieved from <http://kut.org/post/how-texas-school-security-has-changed-sandy-hook>
- McSweeney, T., & Lee, V. (2011). Three killed, including suspect, in shooting at SJSU. Retrieved from <http://abclocal.go.com/kgo/story?id=8124198>
- McVeigh, K. (2013, December 13). *Sandy Hook: one year on, campaigners prepare for new push on gun control*. Retrieved from <http://www.theguardian.com/world/2013/dec/13/sandy-hook-campaigners-push-gun-control>
- Milam, A. J., Furr-Holden, C. D. M., & Leaf, P. J. (2010). Perceived school and neighborhood safety, neighborhood violence and academic achievement in urban school children. *Urban Review, 42*(5), 458-467. doi: 10.1007/s11256-010-0165-7

- Mongan, P., Smith-Hatcher, S., & Maschi, T. (2009). Etiology of school shootings: utilizing a purposive, non-impulsive model for social work practice. *Journal of Human Behavior in the Social Environment, 19*(5), 635-645. doi: 10.1080/10911350902910583
- Mooji, T., & Fettelaar, D. (2012). School and pupil effects on secondary pupils feeling of safety in school, around school, and at home. *Journal of Interpersonal Violence, 28*(6), 1240-1266. doi: 10.1177/0886260512468242
- Mountjoy, J. (2013). The gun debate. *Capital Ideas, 56*(3), 42-45.
- Muschert, G. W. (2007). Research in school shootings. *Social and Personality Psychology Compass, 2*(3), 60-40.
- Narayan, C., Mungin, L., & Botelho, G. (2014, January 16). Students return to new mexico school two days after shooting. *CNN Justice*. Retrieved from <http://www.cnn.com/2014/01/16/justice/new-mexico-school-shooting/>
- National Rifle Association. (2014). *A brief history of NRA*. Retrieved from <http://www.nrahq.org/history.asp>
- Neily, C. (2008). District of Columbia v. Heller: The second amendment is back, baby. *CATO Supreme Court Review, 127-159*.
- Newman, K. (2004). *Rampage: The social roots of school shootings*. (1st ed.). New York, New York: Basic Books.
- No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107-110, § 115, Stat. 1425 (2001).
- NRA's response to Sandy Hook: Federally funded police in schools (2013). *The New American, 29*(2), 8.
- NyBlom, S. E. (2003). Understanding crisis management: Risk assessment and planning are key to effective response. *Professional Safety, 48*(3), 18-25.

- O'Brien, M. (2012, December 18). How much would it cost to put armed guards at every public school. *The Atlantic*. Retrieved from <http://www.theatlantic.com/business/archive/2012/12/how-much-wouldit-cost-to-put-guards-with-guns-in-every-public-school/266579/>.
- Oklahoma Department of Civil Emergency Management. (1996). *After action report: Alfred P. Murrah Federal Building bombing, April 19, 1995*. Oklahoma City, OK: Department of Central Services Division.
- Oksanen, A., Nurmi, J., Vuori, M., & Räsänen, P. (2013). Jokela: The social roots of school shooting tragedy in Finland. In N. Böckler, T. Seeger, P. Sitzer & W. Heitmeyer (Eds.) *School Shootings: International Research, Case Studies and Concepts for Prevention* (pp. 189–215). New York: Springer.
- One dead, 5 hurt in shooting at Worthing HS. (2011, March 31). Retrieved from <http://abclocal.go.com/ktrk/story?section=news/local&id=8044190>
- One L. Goh. (2012). Oikos University gunman, kills 7 people “execution style”, say police. Retrieved from <http://www.cbsnews.com/news/one-l-goh-oikos-university-gunman-kills-7-people-execution-style-say-police/>
- Ortiz, E., & Gittens, H. (2014). Shooter and 1 Student at Oregon High School Confirmed Dead: Police. Retrieved from <http://www.nbcnews.com/news/us-news/shooter-1-student-oregon-high-school-confirmed-dead-police-n127401>.
- O'Toole, M. E. Critical Incident Response Group, National Center for the Analysis of Violent Crime. (1999). *The school shooter: A threat assessment perspective*. Quantico, VA: Federal Bureau of Investigations.

- Paterson, T. (2003). Pupil kills himself in school shooting. *The Independent*. Retrieved from <http://www.independent.co.uk/news/world/europe/pupil-kills-himself-in-school-shooting-585557.html>
- Patton, D. U., Woolley, M. E., & Hong, J. S. (2012). Exposure to violence, student fear, and low academic achievement: African-American males in the critical transition to high school. *Children and Youth Services Review*, *34*(2), 388-395. doi: 10.1016/j.youth.2011.11.009
- Pearson, C. M., & Clair, J. A. (1998). Reframing crisis management. *Academy of Management Review*, *22*(1), 59-76.
- Pearson Education. (2012). Time line of worldwide school and mass shootings. Retrieved from <http://www.infoplease.com/ipa/A0777958.html>
- Pennsylvania students cope with shooting spree. (2008, April 25). Retrieved from <http://www.cnn.com/US/9804/25/school.shooting.pm/>
- Peters, G., & Woolley, J. T. (1990, November 29). *George Bush: "Statement on signing the crime control act of 1990*. Retrieved from <http://www.presidency.ucsb.edu/ws/?pid=19114>.
- Peterson, K., & Deal, T. (1998). How leaders influence the culture of schools. *Educational Leadership*, *56*(1), 28-30.
- Peterson, R. L., & Skiba, R. (2001). Creating school climates that prevent school violence. *The Clearing House*, *74*(3), 155-163.
- Police: Louisiana Eighth-Grader Detailed Shooting Plot in 'Deadly Diary'. (2009). Retrieved from: <http://www.foxnews.com/story/2009/05/19/police-louisiana-eighth-grader-detailed-school-shooting-ploy-in-deadly-diary/>

- Pollack, W. S., Modzeleski, W., & Rooney, G. United States Secret Service, United States Department of Education. (2008). *Prior knowledge of potential school-based violence: Information students learn may prevent a targeted attack*. Washington, D.C.
- Priks, M. (2008). *Do surveillance cameras affect unruly behavior? A close look at grandstands* (No. 2289). CESifo working paper.
- Pro, J. (2003, April 25). York County 14-year-old shoots principal, turns gun on himself . *Post-Gazette*. Retrieved from <http://old.post-gazette.com/localnews/20030425redlionrp2.asp>
- Prothrow-Stith, D., & Quaday, S. (1996). *Hidden casualties: The relationship between violence and learning*. Washington, DC: National Consortium for African American Children & National Health Education Consortium.
- Putnam, R. (1993). The prosperous community: Social capital and community life. *American Prospect*, 18(Spring), 35-42.
- Rapoza, K. (2011, April 7). Brazil news wrap: Rio de Janeiro school shooting kills 12. Retrieved from <http://www.forbes.com/sites/kenrapoza/2011/04/07/brazil-news-wrap-rio-de-janeiro-school-shooting-kills-11/>
- Reckdahl, K. (2001, January 14). The jury is still out. Retrieved from <http://www.bestofneworleans.com/gambit/the-jury-is-still-out/Content?oid=1239849>
- Residents shocked by shooting spree. (1985, January 22). *The Argus-Press*, p. 8

- Reynolds, C.R., Skiba, R.J., Graham, S., Sheras, P., Conoley, J.C., & Garcia-Vazques, E. (2008). Are zero tolerance policies effective in the schools? An evidentiary report and recommendations. *The American Psychologist*, *63*(9), 852-862.
doi:10.1037/0003-066X.63.9.852
- Ripski, M. B., & Gregory, A. (2009). Unfair, unsafe, and unwelcome: Do high school students' perceptions of unfairness, hostility, and victimization in school predict engagement and achievement? *Journal of School Violence*, *8*, 355-375. doi: 10.1080/15388220903132755
- Robers, S., Kemp, J., & Truman, J. National Center for Education Statistics , U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. (2013). *Indicators of school crime and safety: 2012* (NCES 2013-036/NCJ 241446). Washington, D.C.
- Rodriguez, I., Bushouse, K., & Santana, S. (2008, November 12). Girl, 15, charged in fatal Dillard High School shooting . *Sun Sentinel*. Retrieved from <http://www.sun-sentinel.com/news/broward/sfl-1112dillardincident,0,7028819.story>
- Rubin, C.B. (2004). Emergency management in the 21st century: Dealing with Al Qaeda, Tom Ridge, and Julie Gerberding. *Working paper #108*, 1-11.
- Saillant, C., & Covarrubias, A. (2008, February 15). Oxnard school shooting called a hate crime. *Los Angeles Times*. Retrieved from http://www.latimes.com/news/local/la-me-oxnard15feb15_jw9jgnnc,0,7513919.photo
- Sallee, M. W. (2005). A tragedy requires focus, not finger pointing. *Reclaiming Children and Youth: The Journal of Strength-based Interventions*, *14*(2), 71-73.

- Sayare, S., & Erlanger, S. (2012). Gunman may have filmed attack at French school. Retrieved from <http://www.nytimes.com/2012/03/21/world/europe/jewish-school-shooting-in-france.html?pagewanted=all>
- Scheckner, S., Rollins, S. A., Kaiser-Ulrey, C., & Wagner, R. (2002). School violence in children and adolescents: A meta-analysis of the effectiveness of current interventions. *Journal of School Violence, 1*(2), 5-34. doi: 10.1300/J202v01n02_02
- Schonfeld, D. J., Lichtenstein, R., Pruetz, M. K., & Speese-Linehan, D. (2002). *How to prepare and respond to a crisis*. (2nd ed.). Alexandria, VA ACSD
- Schunk, D. H. (1995). Self-efficacy, motivation, and performance. *Journal of Applied Sport Psychology, 7*(2), 112-137.
- Schuster, B. (2009). Preventing, preparing for critical incidents in schools. *NIJ Journal, 5*(262), 42-46.
- Second person dies in Ohio State campus shooting. (2010, March 9). Retrieved from <http://www.10tv.com/content/stories/2010/03/09/story-columbus-ohio-state-mccracken-shooting.html>
- Sela-Shayovitz, R. (2009). Dealing with school violence: The effect of school violence prevention training on teachers' perceived self-efficacy in dealing with violent events. *Teacher and Teacher Education, 25*, 1061-1066. doi: 10.1016/j.tate.2009.04.101
- Sementelli, A. (2007). Toward a taxonomy of disaster and crisis theories. *Administrative and Theory Practice, 29*(4), 497-512.
- Sergiovanni, T. J. (2007). *Rethinking leadership: A collection of articles*. (2nd ed.). Thousand Oaks, CA: Corwin Press.

- Shaw, M. (2001). *Promoting safety in schools: International experience and action*. U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Assistance.
- Sheriff: School shooter sent letter to say sorry. (2006, September 30). Retrieved from <http://www.cnn.com/2006/US/09/29/school.shooting/>
- Shermer, M. (2013). The sandy hook effect: Preventing highly improbable mass murders like that at Sandy Hook Elementary is impossible, but there are things we can do to decrease violence. *Skeptic Magazine*, 18(1), 33-43.
- Shields, P. M. (1991). School and community influences on effective academic instruction. In M. S. Knapp & P. M. Shields (Eds.). *Better schooling for the children of poverty: Alternatives to conventional wisdom* (pp. 313-328). Berkeley, CA: McCutchan.
- Shooting at Azerbaijan Oil Academy kills 12. (2009, April 30). Retrieved from <http://www.cbc.ca/news/world/shooting-at-azerbaijan-oil-academy-kills-12-1.827697>
- Shooting rampage kills two at private school. (1992, December 16). *The Times-News*, p. 10.
- Simon, M.D., & Garner, M.K. (2010, February 22). Spelman trial: Benton gets life plus 25 years in murder of Jasmine Lynn. *The Atlanta Journal-Constitution*. Retrieved from <http://www.ajc.com/news/news/local/spelman-trial-benton-gets-life-plus-25-years-in-mu/nQcjc/>

- Sitzmann, T., & Yeo, G. (2013). A meta-analytic investigation of the within-person self-efficacy domain: Is self-efficacy a product of past performance or a driver of future performance? *Personnel Psychology*, *66*, 531-568. doi: 10.1111/peps.12035
- Smith, P., & Ross, B. (2013). The gun debate. *Junior Scholastic*, *115*(4), 6-9.
- Somerville, S. (1989, December 13). Teen gets life in prison in shooting. *Daily Press*. Retrieved from http://articles.dailypress.com/1989-12-13/news/8912130120_1_mr-elliott-nicholas-elliott-portable-classroom.
- Sorenson, A. B., & Hallinan, M. T. (1977). A reconceptualization of school effects. *Sociology of Education*, *50*(4), 273-289.
- Squires, L. (2013). North Panola teen killed in shooting after football game. Retrieved from <http://www.wmcactionnews5.com/story/23248021/mid-south-teen-found-dead-after-high-school-football-game>
- Start 'em young: recruitment of kids to the gun culture. (1999). Violence Prevention Center. Retrieved from <http://www.vpc.org/studies/start3.htm>
- Stein, A. (2006). We thought it could never happen here: The crisis communications response to the Thurston High School shootings. *Journal of Promotion Management*, *12*(3/4), 99-127. doi: 10.1300/J057v1203_07
- Stewart, E. B. (2007). Individual and school structural effects on African American high school students. *High School Journal*, *91*(2), 16-34.
- Student in custody after teacher, school aide shot. (1998, June 15). CNN. Retrieved from <http://www.cnn.com/US/9806/15/school.shooting.04/>
- Student kills teacher, wounds 3 others. (1986, December 5). *Times-Union*, p. 1.

Student planned shooting. (1983, January 23). *The Milwaukee Journal*, p. 9.

Student shoots four at Dutch school. (1999, December, 7). Retrieved from

<http://news.bbc.co.uk/2/hi/europe/554440.stm>

Student shoots teacher then turns gun on himself. (1995, October 13). *Deseret News*, p. 1.

Student shot at a school in Memphis. (2008, February 12). Retrieved from

http://www.nytimes.com/2008/02/12/us/12memphis.html?_r=0

Student shot at N.C. high school.(2014, September 30). Retrieved from

[http://www.usatoday.com/story/news/nation/2014/09/30/person-shot-at-school/16470841/.](http://www.usatoday.com/story/news/nation/2014/09/30/person-shot-at-school/16470841/)

Student wounds five in unprecedented Dutch school shooting. (1999, December 8).

Retrieved from http://lubbockonline.com/stories/120899/wor_120899074.shtml

Surface, J. L. (2011). Not all threats are equal. *The Clearing House*, 84, 150-154. doi:

10.1080/00098655.2011.564983

Suspect in custody after Orlando school shooting. (2013, December 04). Retrieved from

<http://www.floridatoday.com/viewart/20131204/NEWS01/131204011/Suspect-custody-after-Orlando-school-shooting>

Swanson, J. (2013). Mental illness and new gun law reforms the promise and peril of crisis-driven policy *Journal of the American Medical Association*, 309(12), 1233-1234.

Swezey, J.A., & Thorpe, K.A. (2010). A school shooting plot foiled. *Journal of Research on Christian Education*, 19, 286-312.

- Teen convicted of murder in Rocori High School shootings. (2005, July 18). Retrieved from
http://news.minnesota.publicradio.org/features/2005/07/18_postt_rocoriverdict/
- Teen fatally shot outside school. (2001, March 31). Retrieved from
<http://articles.latimes.com/2001/mar/31/news/mn-45164>
- Teen shot in Arapahoe High School shooting dies. (2013, December 21). *The Chicago Tribune*. Retrieved from <http://www.chicagotribune.com/news/chi-colorado-high-school-shooting-victim-dies-20131221,0,6567404.story>
- Teen student kills himself after teacher shot. (2003, July 2). Retrieved from
<http://www.iol.co.za/news/world/teen-student-kills-himself-after-teacher-shot-1.109087#.U2WNvaIo7IU>
- Teen will be tried as adult in Carter County school shooting. (1993, April 26). *Kentucky New Era*, p. 10.
- Templeton, D. E. I. (2008). Review of introduction to emergency management. *Journal of Homeland Security and Emergency Management*, 5(1), 1-18.
- Thirteen dead, including gunman, in shooting at Azerbaijan State Oil Academy. (2009, April 30) Retrieved from <http://www.foxnews.com/story/2009/04/30/13-dead-including-gunman-in-shooting-at-azerbaijan-oil-academy/>
- Thompson, S., & Kyle, K. (2005). Understanding mass school shootings: Links between personhood and power in the competitive school environment. *The Journal of Primary Prevention*, 26(5), 419-438. doi: 10.1007/s10935-005-0006-8
- Three dead in LTC shooting. (2008, February 18). Retrieved from
<http://www.wafb.com/Global/story.asp?S=7842633>

- Three gang members arrested after teen fatally shot following North Panola prep football game. (2013, August 26). Retrieved from http://blog.gulflive.com/mississippi-press-news/2013/08/3_gang_members_arrested_after.html.
- Tierney, K. L. (2007). Testimony on needed emergency management reforms. *Journal of Homeland Security and Emergency Management*, 4(3), 1-15.
- Tillyer, M. S., Fisher B.S., & Wilcox, P. (2010). The effects of school crime prevention on students' violent victimization, risk perception, and fear of crime: A multilevel opportunity perspective. *Justice Quarterly*, 28(2), 249-277.
- Trump, K. S. (1999). School security and crisis preparedness: Make it your business! *School Business Affairs*, 65(6), 15-18.
- Trump, K. S. (2009). Lessons learned. *District Administration*, 46(4), 26-30.
- Tschannen-Moran, M., & Hoy, A.W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education* 23(6), 944-956.
- Turner, A., Glantz, K., & Gall, J. (2013). A practitioner-researcher partnership to develop and deliver operational value of threat, risk, and vulnerability assessment training to meet the requirements of emergency responders. *Journal of Homeland Security and Emergency Management*, 10(1), 1-14. doi: 10.1515/jhsem-2012-0056
- Turula., M. (2007, November 11). Finnish school shooter dies after killing 8. Retrieved from: http://usatoday30.usatoday.com/news/world2007-11-07-finland-shooting_N.htm?csp=34

Turula., M. (2008, September 24) 2 school shootings in Finland, many similarities.

retrieved from: http://usatoday30.usatoday.com/news/world/2008-09-23-540588501_x.htm

Tveiten, C. K., Albrechtsen, E., Waero, I., & Wahl, A. M. (2012). Building resilience into emergency management. *Safety Science*, 50(2012), 1960-1966. doi:

10.1016/j.ssci.2012.03.001

Two killed in rural Vermont shootings. (2006, August 25). Retrieved from

<http://www.cnn.com/2006/US/08/24/school.shooting/>

Two students shot, wounded at NYC high school. (2002, January 16). Retrieved from

<http://edition.cnn.com/2002/US/01/15/ny.school.shooting/index.html>

Two wounded in Del. campus shooting. (2007, September 21). Retrieved from

http://usatoday30.usatoday.com/news/nation/2007-09-21-delaware-shooting_N.htm

Urbina, I. (2009, December 9). Virginia student charged in school shooting. *The New York Times*. Retrieved from

http://www.nytimes.com/2009/12/10/us/10shooting.html?_r=0

Urbina, I. (2010, March 9). Ohio State Employee Kills Co-Worker, Then Self, Police

Say. Retrieved from <http://www.nytimes.com/2010/03/10/us/10ohio.html>

U.S. Const. amend. II.

U.S. Department of Justice, Bureau of Alcohol, Tobacco, Firearms and Explosives.

(2009). *ATF: National firearms act handbook*. Retrieved from U.S. Government

website: <http://www.atf.gov/content/firearms/firearms->

[industry/guides/publications-firearms-national-firearms-act-handbook](http://www.atf.gov/content/firearms/firearms-industry/guides/publications-firearms-national-firearms-act-handbook)

- U.S. Department of Justice, Federal Bureau of Investigation. (2013). *Active shooter/mass casualty incidents*. Retrieved from U.S Government website:
<http://www.fbi.gov/about-us/cirg/active-shooter-and-mass-casualty-incidents>
- Valencia, N., Brumfield, B., & Sutton, J. (2014, January 19). Suspect in Philadelphia school gym shooting turns himself in. *CNN Justice*. Retrieved from
<http://www.cnn.com/2014/01/18/justice/philadelphia-high-school-shooting/>
- Vancouver, J. B., More, K. M., & Yoder, R. J. (2008). Self-efficacy and resource allocation: Support for a nonmonotonic, discontinuous model. *Journal of Applied Psychology, 93*(1), 35-47. doi: 10.1037/0021-9010.93.1.35
- Verlinden, S., Hersen, M., & Thomas, J. (2000). Risk factors in school shootings. *Clinical Psychology Review, 20*(1), 3-56.
- Visser, S. (2009, September 9). Fatal shooting of Spelman student exposes campus safety concerns. *The Atlanta Journal-Constitution*. Retrieved from
<http://www.ajc.com/news/news/local/fatal-shooting-of-selman-student-exposes-campus-s/nQQWJ/>
- Vossekuil, B., Fein, R. A., Reddy, M., Borum, R., & Modzeleski, W. (2002). The final report and findings of the safe school initiative: Implications for the prevention of school attacks in the United States. . *Education Digest, 66*(6), 4-10.
- Watson, S. (2007). Boys, masculinity and school violence: Reaping what we sow. *Gender and Education, 19*(6), 729-737.
- Waugh, W. L., & Streib, G. (2006). Collaboration and leadership for effective emergency management. *Public Administration Review, December (Special Issue)*, 131-139.

- Welsh, W. (2000). The effects of school climate on school disorder. *Annals of the American Academy of Political and Social Science*, 567, 88-108.
- Wilson, T. (1994, January 22). Teen guilty of slaying in Tilden High hallway. *Chicago Tribune*. Retrieved from http://articles.chicagotribune.com/1994-01-22/news/9401220160_1_gang-members-school-hallway-first-degree-murder-conviction
- Wilson-Simmons, R., Dash, K., Tehranifar, P., O'Donnell, L., & Stueve, A. (2006). What can student bystanders do to prevent school violence? perceptions of students and school staff. *Journal of School Violence*, 51(1), 43-62. doi: 10.1300/J202v05n01_04
- Wisconsin principal dies after school shooting. (2006, September 30). Retrieved from http://usatoday30.usatoday.com/news/nation/2006-09-29-principal-shot_x.htm?csp=34
- Woman kills 2 students in Louisiana college classroom, takes own life. (2008, February 8). Retrieved from <http://www.foxnews.com/story/2008/02/08/woman-kills-2-students-in-louisiana-college-classroom-takes-own-life/>
- Wyllie, D. (2013, December 13). *Active shooters in schools: How far have we come since Sandy Hook?* Retrieved from <http://www.policeone.com/active-shooter/articles/6666083-Active-shooters-in-schools-How-far-have-we-come-since-Sandy-Hook/>

- Zagar, R. J., Busch, K. G., Grove, W. M., & Hughes, J. R. (2009). Summary of studies of abused infants and children later homicidal and homicidal, assaulting later homicidal, and sexual homicidal youth and adults. *Psychological Reports, 104*, 17-45. doi: 10.2466/PRO.104.1.17-45
- Zimmerman, B.J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology, (25)*, 82-91. doi:10.1006/ceps.1999.1016
- Zimring, F. E. (1975). Firearms and federal law: The gun control act of 1968. *Journal of Legal Studies, 4(1)*, 133-198.
- Zyromski, B., Bryant, A., & Gerler, E. R. (2009). Online reflections about relationships at school: Implications for school violence. *Journal of School Violence, 8(4)*, 301-311. doi: 10.1080/15388220903130098