

ABSTRACT

Public School Response to the Trauma of School Shootings

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Public school shootings in the United States have reached levels of epidemic concern. Current research related to U.S. school shootings addresses a variety of issues including historical analysis, political influences and policymaking, prevention efforts for school shootings, and risk factors for school shooters. However, research addressing individualized trauma in the aftermath of school shootings and how U.S. public schools are addressing this has been limited. The following research is intended to explore school leaders' (i.e., administrators, teachers, and guidance counselors) experiences of school shootings and public school ability to address the trauma that may develop, identify strategies U.S. public schools are currently using or have access to for addressing trauma following school shootings, and offer alternative intervention methods for addressing school shooting related trauma.

Public School Response to the Trauma of School Shootings

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DEDICATION

To my mom, who has inspired my work and my interest in mental health. To my sister, thank you for all your support along the way. To Marta, for lighting the fire and never doubting I could do this.

CHAPTER ONE

Introduction

Public school safety in the United States (U.S.) is an ever-growing concern. The National Center for Injury Prevention and Control identified school violence as a public health problem and defined it as “youth violence that occurs on a school campus, during a school-sponsored event, or from school-sponsored events which may also involve or impact adults” (Center for Disease and Control, 2016, p.1). It has become evident that school violence in the United States has changed the value of what it means to feel safe on a school campus. School violence can include incidents such as bullying, pushing, shoving, physical fights, and the use of a weapon to threaten or harm others in or near a school environment (Center for Disease and Control, 2016). Exposure to school violence can lead to many detrimental health behaviors and outcomes such as substance abuse, emotional disturbances and disorders, and suicide (Center for Disease and Control, 2016; Love & Cobb, 2012; Mendelson, Tandon, O’Brennan, Leaf, & Ialongo, 2015). A critical concern is the severity to which some school violence incidents have escalated over the years, one of the most severe being school shootings. The occurrence of school shootings in United States public schools have become an important part of the discussion of school violence in the nation as the U.S. is now the leading industrialized nation in the world for school shooting occurrences (Grabow & Rose, 2018).

As school shooting incidents have continued to occur across the nation, so has the threat to the safety of many who spend their days on school campuses. Along with the

threat to the physical safety of students, teachers, school administrators, and staff, comes the threat of the compromised emotional well-being of those involved in school shooting incidents and their surrounding communities. The fear triggered by a school shooting reaches many individuals beyond those directly involved; most notably are those closely connected to these individuals such as parents whose fears for school safety have reached a two-decade high, per recent reports (Richmond, 2018). Additionally, related school shooting drills (also known as active shooter drills) have the potential to evoke anxiety in students and school employees (Blad, 2018). The emotional trauma that lingers after shooting incidents appears to be difficult to manage for public schools. Literature suggests that public schools should make attempts to address trauma in the aftermath of a school shooting in addition to calls for change in public policy related to education, school safety, and gun control (Mongan, Hatcher, & Maschi, 2009). Policymakers and advocates over time have attempted to address the issue of school shootings but continue to reach conflicting positions without resolutions for the issue that now spans across several decades.

History and Definition of School Shootings

America's contemporary history of school shootings began in the 1940s with an incident perpetrated by a middle school principal who killed four people, reportedly in response to his fear that he would be fired at the end of the school year (Katsiyannis, Whitford & Ennis, 2018). This incident meets the criteria for the definition of school shooting held in this research, which is congruent with the definition of mass school shootings as presented by Katsiyannis et al. (2018). Mass school shootings are defined as "a situation in which one or more people intentionally plan and execute the killing or

injury of four or more people, not including themselves, using one or more guns, with the killings or injuries taking place on school grounds during the school day or at a school-sponsored event on school grounds” (Katsiyannis et al., 2018). Apart from the incident in 1940, there were no school shootings that met these criteria in the 1950s and 1960s, and no further incidents until 1979 (Katsiyannis et al., 2018; Lee, 2013; Paradice, 2017). After this point, the number of occurrences in these incidents steadily increased until 1990 (Katsiyannis et al., 2018; Lee, 2013; Paradice, 2017). At this time, the Gun-Free School Zones Act of 1990 was established and legalized criminal penalties for the possession of a firearm on a school campus except in instances where the possession of the gun is used in an official capacity such as with school law enforcement officers (Katsiyannis et al., 2018). Additionally, the 1994 version of the law began to require schools that receive federal funding to expel any student for a year if he or she is in possession of a weapon on the school’s campus (Katsiyannis et al., 2018). In 1990, the U.S. saw a decrease in shooting incidents that could perhaps be related to the previously mentioned legislation. However, shootings began to steadily increase very shortly after this and have continued a gradually increased trajectory since then with 2018 being the highest number of school shooting incidents in history (Center for Homeland Defense and Security, 2019).

Policy

The occurrence of school shootings has had an inevitable effect on policy at various levels including gun control policy, school safety policy, and local police policy. Policy changes in these areas attempt to intersect with social influences in order to comprehensively address issues that impact the occurrence of school shootings in public

schools. The growing need for implementation of new policies across states and in public schools has been made very clear as public school shootings occur across many regions in the U.S. and at every level of education (e.g., elementary, middle, high, and collegiate) (Mongan et al., 2009). However, consistent and/or standard policies regarding these issues have not been agreed upon and typically vary from state to state.

One of the most prominent and controversial policy issues, although beyond the scope of this research, has been the growing discussion surrounding gun policy in the United States. Resolutions such as stricter gun control laws nationally and concealed carry for school staff have been suggested (Nedzel, 2014). However, there is warranted fear that allowing licensed adults to carry firearms in schools may instigate conflicts between staff and students unless the gun owner is as highly trained as a police officer (Nedzel, 2014). Other changes related to gun policy amidst the school shooting crisis include legislation at the state and federal level introduced in 2000 that could have required safety locks on firearms as well as ban the importation of high-capacity ammunition magazines (Palmer, Kralik, & Erwin, 2018). There is also still much debate regarding obtaining background checks for guns despite laws that made it a crime to buy guns for persons convicted on crime and for minors (Palmer et al., 2018). The controversy regarding a change in gun control policy suggests that failure to agree upon and pass effective policies in this area of limiting school shootings further increases the need for interventions and strategies in the aftermath of such events.

School policy. The occurrence of school shootings has also affected school policy issues and security measures. For example, following the 1999 Columbine High School shooting some schools across the nation initiated security measures such as clear

backpacks, metal detectors, and security guards (Ujifusa & Superville, 2018). Other schools have implemented door numbering to improve public safety response or requiring students to wear photo identification cards (Ujifusa & Superville, 2018). Anti-bullying policies have also been strengthened. Sabia and Bass (2017) found state mandates that require school districts to implement strong, comprehensive anti-bullying policies are associated with a 7 to 13% reduction in school violence and an 8 to 12% reduction in bullying. Many schools have also implemented zero-tolerance approaches to possession of weapons and threats of harm. (Ujifusa & Superville, 2018).

Policing policies. Further, the occurrence of school shootings in the U.S. has affected policing policies. Some police departments are revising their policies in order to respond more quickly and effectively to school shootings (Chrusciel, Wolfe, Hansen, Rojek, & Kaminski, 2015; Fox & DeLateur, 2014; Lloyd, 2000). After much criticism related to the slow response of SWAT teams during shooting incidents, one important change that police have made is the introduction of the immediate action rapid deployment tactic specifically for use in active shooter situations (Chrusciel et al., 2015; Lloyd, 2000). This tactic calls for a four-person team who are trained to move toward the sound of gunfire, preferably in a diamond-shaped wedge and neutralize the shooter after advancing into the site of any shooting (Chrusciel et al., 2015). In this scenario officers are trained to stop the shooter at any cost, even walking past wounded persons in order to prevent the shooter from escaping or killing more people (Chrusciel et al., 2015).

Despite the changes made to policies on many levels, school shootings have now reached an all-time high in occurrences since the 2010s indicating that policy change alone, or perhaps thus far, has not been enough to address this issue (Katsiyannis et al.,

2018). Another possibility could be that while policy changes continue to be effective, there are new unknown factors that are now affecting the occurrences of school shootings. Either theory suggests that intervention is needed. The identification of a common strategy to effectively address the issue of school shootings has yet to happen. As America attempts to address the epidemic that school shootings have become, social workers, school-based mental health professionals, community leaders, public school leaders, and congregations are faced with the growing and unique needs of this population in the aftermath of a shooting. While attempting to address the needs of those affected by school shootings, one must consider the ways in which public schools are currently prepared to handle trauma intervention following school shootings and the effects the trauma of the event may have on those who survive school shootings.

Literature Review

Trauma Effects

Trauma affects approximately 20% of the United States' (U.S.) general population at least once in their life (Meichenbaum, 2012; Vieselmeyer, Holguin & Mezulis, 2017). There are many types of trauma including physical abuse, sexual abuse, sudden and/or violent loss, natural disasters, war, and transportation accidents and more (Meichenbaum, 2012) and one's response to a traumatic event can vary. However, consequences of exposure to trauma are likely to be detrimental and can threaten one's mental health and overall functioning without appropriate intervention (Cook, Chaplin, Sinha, Tebes, & Meyes, 2012; Vieselmeyer et al., 2017). This is especially true for youth who often lack well-developed, healthy coping skills to manage trauma-related symptoms (Cook et al., 2012; Vieselmeyer et al., 2017). Trauma can be a significant risk factor in

the development of many psychiatric disorders (Wingo et al., 2010) and trigger negative and dysfunctional thought patterns (Beck et al., 2015). Many youths who experience traumatic events are at higher risk than those who haven't experienced a traumatic event of developing psychiatric disorders such as depression (Wingo et al., 2010), substance abuse disorders, and post-traumatic stress disorder (PTSD) at any time following the traumatic event (Dauber, Lotsos, & Pulido, 2015).

Trauma in Youth in Schools

Many people have experienced multiple traumatic events by adolescence; as many as 48% of adolescents in recent national surveys indicated they have experienced two or more traumatic events (Finkelhor, Turner, Shattuck, & Hamby, 2013; Saunders & Adams, 2014). Implications of these reports of adolescents in comparison to the aforementioned trauma prevalence in the general population (20%) indicate striking differences and highlight the critical importance of addressing trauma among youth. Traumatized youth often display heightened reactivity to stress, decreased interpersonal competence, decreased anger regulation, negative cognitions of self, life, and grief (Boelen, Reijntjes, Djelantik, & Smid, 2016; Cook et al., 2012). They also experience symptoms such as impairment in memory, increased aggression, delinquent behavior, and emotional disturbances (Dauber et al., 2015). Further, academic functioning is significantly reduced up to one year after a traumatic event (Strom, Schultz, Wentzel-Larsen, & Dyb, 2016), likely impacted by the effects of trauma. Such effects and symptoms tend to increase among those exposed to multiple traumatic events (Saunders & Adams, 2014). This can be debilitating for youth in several areas of life, but critical areas of concern include the academic and social ramifications of trauma. Implications

for traumatized youth in school settings in light of this research suggest significant changes in functioning levels such as worsening academic performance, poor classroom behaviors, and relationship difficulties (Hansel et al., 2010; Mendelson et al., 2015).

School Shootings

Traumatic incidents, especially school shootings, occurring in public school settings can be contributing factors to the increased prevalence and exposure of trauma to youth (Gabarino, Bradshaw, & Vorrasi, 2002). Recent reports indicate that since 2009 the U.S. has had 57 times as many school shootings as all other major industrialized nations in the world combined, making trauma in U.S. public school more likely (Grabow & Rose, 2018). Major schools shootings in the U.S. in the last 20 years have included those at Columbine High School in 1999, Santana High School in 2001, Appalachian School of Law in 2002, University of Arizona School of Nursing in 2002, Rocori High School in 2003, Red Lake Senior High School in 2005, Shepherd University in 2005, West Nickel Mines School in 2006, Virginia Polytechnic Institute and State University in 2007, Louisiana Technical College in 2008, Northern Illinois University in 2008, University of Alabama in 2010, Chardon High School in 2012, Oikos University in 2012, Sandy Hook Elementary in 2012, Santa Monica College in 2013, Marysville-Pilchuck High School in 2014, Umpqua Community College in 2015, North Park Elementary School in 2017, Aztec High School in 2017, Marshall County High School 2018, Marjory Stoneman Douglas High School in 2018 and Santa Fe High School in 2018 (Coughlan, 2018; Reuters, 2018). Given that trauma has significant effects on school performance, the added component of trauma occurring in or near school settings raises even more concern. School-based trauma not only results in the original effects of trauma but also

adds other aspects such as the school setting becoming a re-triggering stimulus for the student or faculty member and changing the dynamic in the teacher-student relationship due to shared traumatic experiences or instances where practitioners and those being served experience the same trauma simultaneously (Bell & Robinson, 2013; Tosone et al., 2003).

Risk factors for school shootings continue to be explored but there are indications of some patterns in these events that warrant mentioning for the current research. For instance, bullying has been referred to as a public health matter of concern due to its reported contribution to the presence of violence in schools (Feder, 2007). Later accounts of bullying and school shootings confirm this concern as 87% of school shooters claimed and/or left behind evidence of being victims of bullying (Lee, 2013). Duplechain and Morris (2014) also report that bullying can play a significant role in the occurrence of school-based traumatic events such as school shootings. One implication suggests that school shooters are likely to be students who are reacting in response to perceived threats or harassment from their peers (Duplechain & Morris, 2014). This is concerning, given that bullying and cyberbullying among adolescents have drastically increased in the past few decades (Renshaw, Hammons, & Roberson, 2016). Thus, although there is an increasing concern for school-based trauma incidents overall, school shootings are a critical focus due to the increase in the prevalence of risk factors in combination with the vulnerability of the youth population. This has led to questions within the literature and across the nation about best public school responses to the trauma of school shooting events.

Previous attempts to examine public school responses to school shootings have led to possible methods of providing support to students and/or faculty for this particular type of trauma (Love & Cobb, 2012). Several studies suggest that a collective and trauma-focused intervention program used by public schools would be most appropriate in aiding students and faculty following a school shooting (Dauber et al., 2015; Gelkopf & Berger, 2009; Mendelson et al. 2015). Universal or standardized programs that address these needs are potentially helpful in managing symptoms of trauma, diminish the negative effects of future traumatic experiences, and have been found to be effective whether administered by school faculty and staff or trained mental health clinicians (Gelkopf & Berger, 2009; Mendelson et al., 2015). In contrast, it is suggested that some interventions may be more meaningful if administered by school faculty and staff who have shared the traumatic incident with the students due to the tendency to look within the community for support and healing instead of seeking outside help (Tosone et al., 2003; Yoder, 2008). Perhaps the use of school faculty and staff may be helpful because school shootings present concerns for students that would require more than the typical scope of school-based mental health clinicians' assistance with a particular school. In scenarios such as this, it may prove to be beneficial to have school faculty and staff receive additional or more in-depth training in trauma-informed care or facilitating trauma-related lessons to identify and address trauma-related issues with all students in the aftermath of a shooting. This could also be beneficial in reducing the effects of trauma that arise in the classroom, as mentioned above, such as poor academic performance and classroom behaviors (Hansel et al., 2010; Mendelson et al., 2015). Additionally, Lee (2013) suggested the inclusion of self-defense training in professional

development for teachers may aid public school employees in being more responsive to school shootings as they are often at the front lines when a shooting occurs and have the opportunity to intervene prior to law enforcement arrival. Safety precautions such as restricting points of entry into a school and making wireless panic alarms and strategically placed telephones available have also been recommended (Duplechain & Morris, 2014).

Feedback on the abovementioned interventions and programs are largely positive because students reportedly desire assistance in managing the effects of trauma at school and participating in relevant interventions to gain control can be beneficial for symptom reduction (van Vliet et al., 2017). Adolescent preference on who administers the intervention, however, is less clear. It should be considered that the programs mentioned could be triggering for faculty and staff, due to their own struggle with experiencing the trauma of a school shooting, and this complicates the primary roles of faculty and staff members. Components of a post-trauma intervention response program should include resiliency building, sequential trauma and grief work, and social support promotion among intervention recipients which likely needs to include faculty and staff members (Cohen, Mannarino & Knudsen, 2004; Mancini, Littleton, & Grills, 2016; Melhem, Porta, Payne & Brent, 2013; Stroebe, Schut, & Stroebe, 2005; Spuij, van Londen-Huiberts, Boelen, 2013). Many interventions point to grief counseling, resiliency building, and perceived social support as key factors in one's healing after trauma (Mancini et al., 2016; Wittouck et al., 2011). Further, resiliency building prior to trauma can prevent adverse outcomes following traumatic events, decreasing the likelihood of a student who experiences the trauma of developing Post Traumatic Stress Disorder by

emphasizing emotion regulation and positive thoughts of self (de Villiers & van den Berg, 2012).

Overall, despite some evidence of effectiveness (Gelkopf & Berger, 2009; Hansel et al., 2010; Mendelson et al., 2015), the lack of structured intervention programs and trauma response planning within U.S. public schools to address school shootings continue to leave schools ill-prepared for to follow up after they occur. Though this is likely due to the unpredictable nature and timing of school shootings as well as the relative rarity (although seemingly not so rare); the estimate is one in 100,000 American schools experiencing multiple fatalities due to shootings or on average 10 student deaths per year over the last 25 years (Fox, 2018). In many cases, faculty and staff are ill-informed about the effects of trauma and unprepared to effectively navigate their own trauma while simultaneously trying to support students who are struggling emotionally and academically due to the shooting event. Other contributing factors to the lack of trauma intervention programs in U.S. public schools could be that schools are often addressing the school shooting events on an individual level and not a collective level with the use of mental health clinicians on campuses to aid with students who show trauma-related symptoms (Hansel et al., 2010). Nevertheless, structured and collective trauma program approaches also appear to have potential in addressing the trauma related to school shootings (Gelkopf & Berger, 2009; Hansel et al., 2010; Mendelson et al., 2015; Nadeem, Jaycox, Kataoka, Langley, & Stein, 2011; Roberts, 2006). Specific implications for such programs suggest the significant reduction in trauma effects for adolescent students such as poor academic performance, absenteeism, delinquent behavior and emotional dysfunction (Gelkopf & Berger, 2009; Hansel et al., 2010;

Mendelson et al., 2015; Nadeem et al., 2011; Roberts, 2006). Gaps in the literature on school shootings lie with the lack of consistency and adequacy of trauma intervention in U.S. public schools following school shootings.

Theoretical Framework

The theoretical framework can play an important role in the way an individual processes a traumatic experience and the way public schools attempt to provide intervention for that experience. Trauma and resilience theories have been found to be important to the discussion of school shootings as they often lay the groundwork for the importance of social relationships within the construct of trauma and resilience (Afifi, Merrill, & Davis, 2016; Alexander, 2012). If such theories were incorporated into evidence-based practices for trauma treatment, the potential for more comprehensive and holistic treatment for traumatized individuals could grow. Identification of resilience characteristics and meaning-making following a traumatic event has been found to be effective in reducing trauma symptoms and promoting overall emotional healing of traumatized individuals (Altmeyer, 2013; Vieselmeyer et al., 2017). Thus, the philosophical/theoretical contributions of Viktor Frankl's work on existential theory and meaning-making serves as the primary focus for this research regarding public school shootings and responsive public school trauma intervention. Frankl's work related to finding "meaning" in life's difficult situations, many of which may be considered traumatic, stemmed from surviving several of his own traumatic experiences. After being separated from his family and forced into a concentration camp, Frankl developed existential theory. While developing his own theory focused on finding positive in negative circumstances, Frankl managed to conceptualize a phenomenon that is very

pertinent to today's discussion of managing trauma in the aftermath of a school shooting. His contributions help to reframe the concept of trauma and present it as an opportunity for growth instead of a vehicle to one's own misery.

The concept of meaning-making was developed in direct opposition to the common mental framework that one's perception of the world can feel meaningless or lost following a significant traumatic event (Frankl, 1986; Cann et al., 2011). In order to regain the perception of having meaning in life, one may begin to engage in reflection or active pursuit of ways in which to achieve this meaning. Frankl would argue that this desire and pursuit of meaning in life, with or without the experience of trauma, is called "the will to meaning" (Frankl, 1986; Reitingner, 2015). This concept suggests that the ultimate human desire and goal in life is to find meaning (Frankl, 1986; Reitingner, 2015). The concept of phenomenology serves as the first building block for meaning-making in any life event, including those that are traumatic, as this focuses on the way an individual views his or her own life and existence and ultimately, how he or she may interpret the world (Frankl, 1988). Individual interpretations are crucial to the idea of meaning-making specifically in the context of public-school shootings because one incident incorporates the lives of many people which will likely result in a variety of interpretations and perspectives of the event. This leads to another building block in meaning-making referred to as dimensional ontology. This concept offers an explanation of how the vantage point from which one views an incident may cause him or her to interpret it differently in comparison to a person who has a different vantage point. For example, a person looking down on a soda can see a simple circular structure; however, a person looking across from a soda can may see a more complex three-dimensional cylinder.

Similarly, a person who experiences a school shooting from inside of a locked classroom will have a much different perspective of the event than a person who experiences it from the outside of the school in an EMS vehicle and thus providing, varying trauma responses. Additionally, past experiences can add to the complexity of a dimensional ontological view. In this scenario, not only does the current view of the incident affect an individual's interpretation of it, but also any past experiences he or she may have had. For example, a person who has endured previous traumatic incidents may experience the current event more intensely, as this may be retriggering, than someone who has no prior trauma history adding another layer to the development of one's personal interpretation of the event. On the other hand, a person with a prior trauma history may also experience new trauma through the lens of the previous experience. These characteristics of meaning-making aid in conceptualizing what types of intervention have a better chance for success and are most appropriate in the aftermath of trauma. Further, if such characteristics of meaning-making can be identified in established evidence-based treatments for trauma, such treatments would be invaluable to public school approaches in managing trauma after a school shooting.

Aims of Research

It is anticipated that the following research will aid in the national discussion of U.S. public school shootings. Specifically, subsequent research studies give voice to those overlooked in the discussion of school shootings including teachers, administrators, and guidance counselors. It is expected that these groups provide insight into methods public schools are currently using to manage trauma in the aftermath of school shootings and/or how they can more appropriately address it in the future. Thus far, literature

related to school violence and school shootings in the U.S. does not identify a national, public-school response to trauma in the aftermath of school shootings. Currently, public schools are using a variety of methods to address this and it is unclear which methods are effective in assisting individuals in managing trauma effects after a school shooting.

I conducted qualitative research focused on the lived experiences of public-school teachers, administrators, and guidance counselors who have experienced school shootings. The resulting article highlights the trauma responses of a variety of public schools in the United States and informs a second, quantitative research article that examines to what extent other public schools in the U.S., on a larger scale, are using similar methods. Finally, I drew on the importance of meaning-making in trauma intervention and the process of managing trauma effects in a third, theoretical article. Each article is linked by the golden thread of trauma intervention appropriate for use in the aftermath of a school shooting. Furthermore, the articles within this study address trauma intervention for school shootings in different ways including, organizational intervention (e.g., individual public-school responses), universal/standardized intervention (e.g., national public-school responses), and personal intervention (i.e., personal response through meaning-making) in hopes that in the future public-schools will implement programs and/or treatment interventions that incorporate all three aspects of intervention.

Research Questions

Based on the review of literature, no common public school trauma intervention program and/or response to school shootings used among public schools has been identified or researched to address trauma in the aftermath of school shootings. It is also

unclear if the current trauma intervention strategies used are adequate in addressing trauma symptoms related to school shootings. Barriers that may be preventing public schools from engaging in such programs and/or strategies are less clear. Further, little is known about the experiences and perceptions of school leaders (e.g., teachers, administrators, guidance counselors) regarding public school response to trauma in the aftermath of a school shooting. Therefore, this research study was designed to answer the following research questions: 1.) What are the lived experiences of public-school shootings among public school teachers, guidance counselors, and administrators, including their experiences with the community and school response subsequent to the shooting? and 2.) What programming and resources are U.S. public schools providing or providing access to for students, public school teachers, guidance counselors, and administrators related to school shootings and/or surviving school shootings?

Hypotheses

The above-mentioned research questions were intended for qualitative and quantitative research, respectively. Question one was intended for qualitative research and does not include hypotheses due to the exploratory nature of the research. Question two was intended for quantitative research and supports the null hypothesis (i.e., there is no significant difference between the specified populations). Additionally, the third theoretical, conceptual article addresses treatment modalities for individuals affected by school shootings. This article does not include hypotheses.

Methodology

Qualitative Article

The qualitative article uses a phenomenological approach to research methods to highlight the lived experiences of public-school personnel and their respective experience with school shootings. The study uses a convenience sample of teachers, administrators, and guidance counselors for conducting telephone interviews. Data collection consisted of recording, transcribing, and analyzing 12 semi-structured interviews. Informed consents were obtained verbally from all participants prior to the beginning of the interviews. All identifying information of participants was held confidential and research results de-identified for publication and research dissemination purposes. Participants had the opportunity to elect to withdraw from the study at any time without penalty. The qualitative study identified themes and questions for inclusion in the broader scope of quantitative study. The findings obtained from this study are intended for dissemination among respected scholarly journals, professional conferences, and education consortiums in efforts to give voice to the unheard individuals regarding their experiences with school shootings. The article resulting from this study entitled Public School Preparedness for School Shootings: A Phenomenological Overview of School Staff Perspectives has been submitted for publication to *School Mental Health* and is currently under review.

Quantitative Article

The quantitative article utilized systematic, random sampling from national public-school listservs to recruit participants and collect responses. The study used an anonymous, online survey to obtain information regarding public school methods of response to school shootings from participants. Invitations to complete the survey were

sent to 3,000 individuals. Data collection was anonymous, and participants reviewed and gave informed consent prior to completing the survey. To address nonresponse rate bias, individuals who did not participate in the full survey were asked to complete a small survey link regarding barriers to completing the survey. The findings obtained from this study are intended for dissemination among respected scholarly journals, professional conferences, and education consortiums in efforts to provide information on current strategies used to address trauma from school shootings in U.S. public schools and recommendations for additional intervention. The article resulting from this study entitled Public School Trauma Intervention for School Shootings: A National Survey of School Leaders has been submitted for publication to *Traumatology* and is currently under review.

Theoretical Article

The theoretical article covers the exploration of Viktor Frankl's existential meaning-making and how it can be integrated with evidenced-based trauma interventions, particularly for school shooting survivors. This theoretical framework is highlighted due to support in the literature surrounding the increase in existential questions and the desire for meaning from trauma survivors. The article lays the foundation of theoretical perspectives for the importance of resolving trauma through meaning-making and evidence-based interventions in order to move toward a productive and functional life. It also highlights the importance of the individual in his or her own trauma treatment following traumas such as school shootings. To acknowledge the intellectual contributions to this article, authors include Bree Alexander, MSW, LISW-CP, Jim Ellor, Ph.D., D. Min., LCSW, DCSW, and Helen Harris, EdD, LCSW-S. Dr. Jim

Ellor made significant contributions in the area of conceptualization of article content. Dr. Helen Harris made significant contributions in the area of editing, revision, and conceptual development of evidence-based trauma practices. The article resulting from this collaboration entitled Logotherapy and the Aftermath of Public-School Shootings has been submitted for publication in *The International Forum of Logotherapy* and is currently under review. Additionally, this work is intended for dissemination among professional conferences and education consortiums in efforts to provide information on trauma intervention strategies to address trauma from school shootings in U.S. public schools.

CHAPTER TWO

Public School Preparedness for School Shootings: A Phenomenological Overview of School Staff Perspectives

Abstract

Public school trauma responses to school shootings in the United States (U.S.) are primarily focused on prevention rather than intervention. The current research explored school staff attitudes toward public school trauma response after school shootings. This phenomenological study was conducted with 12 public school staff members with school shooting experience through convenience sampling. Data were collected through semi-structured interviews with questions about public school responses to trauma following a school shooting. Findings indicated school staff concerns for public-school trauma response to school shootings were influenced by four major themes: trauma intervention, perception of support, unintended negative consequences, and barriers to trauma intervention. Reflections of school staff offer insight into where the public schools can begin to more adequately address the needs of students and faculty members who have also survived school shootings.

Keywords: school shooting, trauma, school violence, public schools, trauma intervention, K-12 schools

Introduction

Trauma response in the aftermath of public-school shootings has reached critical need. The trauma of survivors can continue well beyond school shooting incidents as evidenced by media coverage of multiple suicides and deaths, all connected by one experience: school shootings. In one scenario, three victims, two who were survivors of the 2018 school shooting at Marjory Stoneman Douglas High School also known as the Parkland school shooting and one who was the father of a child killed in the 2012 Sandy Hook Elementary School shooting, reminded the United States (U.S.) that trauma continues to live on long after a school shooting and needs to be addressed appropriately (Yan & Park, 2019). According to Novotney (2018), long-term outcomes for survivors of school shootings are improved with the help of community relationships and continued access to mental health support. However, the continuity of mental health support following public school shootings remains varied, unclear, and often inadequate.

“The National Center for Post-Traumatic Stress Disorder (PTSD) estimates that 28 percent of people who have witnessed a mass shooting develop post-traumatic stress disorder and about one third develop acute stress disorder” (Novotney, 2018, p.36). However, research on public school shooting prevention has been pushed to the forefront of the national discussion in lieu of trauma intervention after shootings have occurred. Considering the many risk factors associated with school shootings, addressing prevention issues may not be able to entirely eliminate risk. In cases where school shootings cannot be prevented, public schools should be equipped and/or have access to resources related to trauma intervention for students and faculty members.

Literature Review

The school shooting phenomenon has been an ongoing dilemma in the United States for many years. Reports of shootings on school campuses across the nation have triggered conversations calling for systematic change on many levels including school safety, gun control, and mental health in schools (Mongan, Hatcher & Maschi, 2009). However, many of these conversations have been focused on issues of school safety and gun control rather than research on the severity and scope of mental health problems that follow school shootings and efficacy of interventions.

Impact of School Shootings on Students, Staff, and Families

Sources like the Washington Post report “more than 187,000 students attending at least 193 primary or secondary schools have experienced a shooting on campus during school hours” (Cox & Rich, 2018, p.1). The resulting trauma associated with the incidents is just as impactful. The American Psychological Association (APA) recently released its *Stress in America* survey results indicating people ages 15 to 21 (also known as Generation Z) are concerned about guns and they are more likely than any other population to describe their mental health as poor (National Child Traumatic Stress Network, 2018). Parents are also impacted by school shootings as reports indicate that their fear for their children’s safety in schools has reached a two-decade high (Richmond, 2018).

Other problems associated with school shootings include long term health issues like disordered sleep, heightened startle reflex, loss of appetite, general anxiety, increased fatigue for school staff such as teachers, administrators, and counselors (Fein, 2003; Lerner, Volpe, & Lindell, 2003; Riley & McDaniel, 2000) and higher rates of depression,

anxiety and post-traumatic stress disorder (PTSD) for students (“School Shootings”, 2018). Research indicates traumatic experiences in childhood and adolescence are associated with impediments in school performance as well as social, emotional, cognitive impairments (Craig, 2017, Thomas et al., 2019). Even brain development can be significantly impeded by traumatic stress (Craig, 2017; Perfect, Turley, Carlson, Yohanna & Saint Gilles, 2016; Thomas, Crosby, & Vanderhaar, 2019). In many cases, immediate acute response to trauma in some survivors begins to resolve over time and symptoms decline, but as many as 28% of these individuals continue to struggle with trauma-related symptoms three to four months later (American Psychiatric Association, 2013). They are most likely to develop mental health disorders like Post Traumatic Stress Disorder (PTSD), which significantly increases their risk of developing co-morbid conditions like depression, eating disorders, and/or suicidal thoughts (Ritchie, 2003; “School Shootings”, 2018).

However, despite the potential for negative psychological impact, Tosone, Nuttman-Shwartz, & Stephens (2012) suggest shared traumatic experiences like school shootings can offer an opportunity for post-traumatic growth including “increased self-care, personal and therapeutic intimacy, and self-disclosure” (p. 234). Shared trauma increases the likelihood of the use of personal and peer support and enhancement of protective factors like social support are critical to post-trauma recovery (Salloum & Overstreet, 2012; La Greca et al., 2010; La Greca et al., 1996; Moore & Varela, 2010). That is, perceived support is inversely correlated with PTSD symptoms (i.e., high levels of perceived support suggest lower levels of PTSD symptoms) (Lee, 2019). Protective factors such as emotional support (e.g., presence of a caring adult at home, school or in

the community), community support (e.g., structured opportunities to participate in meaningful activities), and tangible support (e.g., cards of well wishes) have shown to improve mental health of those exposed to violence as they help to build emotional resiliency (Bernard, 2004; Jain, Buka, Subramanian, & Molnar, 2012; Larson, 2000; Luthar & Zelano, 2003; Resnick et al., 1997; Werner & Smith, 2001). Thus, common public-school responses to school shootings, including trauma response and mental health follow-up, provide important contributions to this topic.

Common Response to School Shootings

In the event of a school shooting, the role of crisis management following the shooting is likely to fall within the responsibility of school staff. Thus, many public-school professionals need continued professional development to develop expertise in responding to crises, including plans and/or strategies to manage the trauma of students and staff members in the aftermath (Allen et al., 2002). Allen et al. (2002) define a *school crisis* as an event that “brings chaos” and/or “undermines the safety and stability of the entire school” which “exposes children and staff to threat, loss, and traumatic stimulus” (p.96). By this definition, the management of trauma after school shootings should be prioritized in the school crisis and/or trauma plans. However, in many public schools, the response to a school shooting is to provide the campus immediate, but short-term, access to trauma counselors or other methods of coping (Novotney, 2018).

School-based mental health services. On-site crisis mental health intervention is a common public school response to school shootings. Age, proximity to the shooter, witnessing someone get injured, being personally injured, or previous trauma can affect an individual’s trauma response and need for mental health intervention (Suomalainen,

Haravuori, Berg, Kiviruusu & Marttunen, 2011). Research indicates that post-trauma mental health intervention should be easily accessible (i.e., school-based services), cover a wide range of traumatic experiences in the immediate aftermath and throughout long term recovery, and address other issues such as traumatic grief which can overlap with symptoms of PTSD as they both stem from trauma but may require a different treatment plan (Salloum & Overstreet, 2013). This suggests that current public school practice of access to short-term, crisis mental health services on campus in the immediate days following a shooting may not be sufficient and aligns with trauma literature which suggests that in the face of trauma, memory fragmentation can be adaptive for survival and play a role in timing of intervention (Dyregrov, 1997; Levine, 2015) In fact, research on eye movement desensitization reprocessing (EMDR) suggests that memory fragments of traumatic incidents are best integrated and processed after at least three months (Balbo, Cavallo, & Fernandez, 2019). Thus, if a traumatized individual is still in shock following a traumatic experience, it may be too soon to process what they have been through. In a school shooting scenario, by the time the shock has subsided, and psychological trauma processing is needed, there may no longer be mental health services readily available on the school's campus.

The call for more school-based mental health counselors to address these issues has also been a strategy for public schools. Many states and school districts have also proposed programming and legislation to obtain at least one school-based mental health therapist in every public school due, in part, to the high association of mental health challenges (i.e., bullying, isolation, noncompliance with psychiatric medications) with previous school shooters (Teasley, 2018). However, many individuals choose not to

access mental health resources following a school shooting due to survivor's guilt, isolative behaviors, mental health stigma, fear that treatment will worsen symptoms, and/or inaccurate assessment of need (Mazzei & Jordan, 2019). According to Ritchie (2003), early mental health intervention following significant trauma does not need to focus on psychological forms of treatment, but rather on practical, basic services.

Trauma-informed care. Trauma-informed models and practices are also increasingly utilized in U.S. public schools as a result of increased trauma-affected students (Brunzell, Stokes, & Waters, 2019). Trauma-informed care is focused on practice that “encourages...providers to approach their clients’ personal, mental and relational distress with an informed understanding of the impact trauma can have on the entire human experience” (Evans & Coccoma, 2014, p. 1). The trauma-informed school movement is the result of many changing factors within school systems including the “failure of exclusionary discipline policies to create safe schools and improve academic and social outcomes, growing evidence of the relationship between trauma and low student engagement, and the effects of systemic devaluation of unresolved trauma on neural development” (Craig, 2017, pp. 5-8). A common approach used to support trauma-informed schools is the positive behavioral interventions and supports (PBIS) framework which can give direction and progressive intervention approaches to holistic support for students (Brunzell et al., 2019; Wiest-Stevenson & Lee, 2016). This approach teaches administrators and teachers to identify trauma and alarming behavior in students and respond with appropriate supports such as restorative circles, small groups used for conflict resolution, healing support, and to repair harm to relationships instead of assigning blame and dispensing punishment (Brunzell et al., 2019; Wiest-Stevenson &

Lee, 2016). PBIS can help schools lay an important structural foundation for trauma-informed care.

Mutch & Gawith (2014) suggest that some schools struggle with coping and engaging in trauma-informed practices due to depleted emotional capital. In a study the authors conducted, schools struggling to manage trauma-related to earthquake recovery were described as “too exhausted or more focused on returning to normalcy” to engage in trauma-informed care or research (Mutch & Gawith, 2014, p. 59). This suggests that fellow survivors (i.e., school personnel) may not be best able to provide intervention. Further research is warranted in this area to assess the effects that trauma-informed schools models have on facilitators such as teachers, school counselors, support staff, and administrators specifically in scenarios where the trauma is shared as in school shootings. Additionally, macro-level barriers such as school funding, daily time constraints, and under-identified mental health needs related to trauma prevent some schools from engaging in appropriate trauma intervention (Martin et al., 2017; Saltzman, Pynoos, Laynes, Steinberg, and Aisenberg (2001, 2003). Due to the unstandardized nature of managing trauma and/or crises in public schools in the U.S., it is unclear how schools are attempting to provide trauma intervention resources for students and school staff following school shootings.

In this study, a school shooting is defined as any incident on a public-school campus involving an armed person or persons with intent to harm which results in the injury or death of one or more people (Gun Violence Archive, 2012). The purpose of this qualitative phenomenological study was to answer the following research question: What are the lived experiences of public school shootings among public school teachers, school

counselors, and administrators, including their experiences with the community and school response subsequent to the shooting? Furthermore, the study attempts to specifically examine the way public schools across the U.S. have engaged public school staff and students in trauma intervention following a school shooting and what public school staff perceive to be effective and/or ineffective about the current way public schools are responding. The experiences of school staff are of particular interest in this study due to the report that 27% of school shooting incidents involve school shooters surrendering to administrators, faculty, or school staff making their role crucial (Lee, 2013). Additionally, school teachers who have responded to a school shooting incident have verbalized having inadequate preparation and training to respond to the event (Lamb-Sinclair, 2018). This indicates that trauma intervention in the aftermath of public-school shootings still needs to be addressed. This study explores the current need for responses to school shootings.

Methodology

A phenomenological approach was used to develop semi-structured interview questions to emphasize description and exploration of the effects of school shootings on school staff, what these experiences mean to them, and future implications for public school management of trauma following a school shooting (Creswell, 2007). Prior to conducting this study, I obtained Institutional Review Board (IRB) approval. I obtained verbal consent from each participant prior to conducting semi-structured interviews, then analyzed and compiled findings to disseminate relevant research toward the national discussion of public-school shootings. The overarching questions focused on experiences of public-school shootings and perceptions of how public schools managed survivor

responses including, but not limited to trauma symptoms of students and faculty members in the aftermath.

Participants

A convenience sample of public-school teachers, school counselors, and administrators that have experienced school shootings were recruited for qualitative interviews via flyers posted on social media sites (i.e., Facebook and LinkedIn) and individual email invitations sent to faculty members of public schools in the U.S. that have had a school shooting occurrence. Public-school shooting experience for participants gained from social media recruitment was cross-verified through academic profiles on their public-school websites and news reports of the school shooting to ensure participants were employed at the school during the time of the shooting. I compiled a list of school shootings in U.S. in the last 20 years via use of meta-analyses of school shootings and news reports (Center for Homeland Defense and Security at Naval Postgraduate School, 2019; Duplechain & Morris, 2014; Lee, 2013; Mongan et al., 2009; Paradise, 2017; U.S. Department of Justice, 2013; Wolfe & Walker, 2019). I organized the initial list evenly into three time periods (i.e., 1998-2004, 2004-2011, 2011-2018). Nine public schools in the U.S. (i.e., an elementary, middle and high school from each time period) were randomly selected from a list of all public schools with documented occurrences of school shootings in the last 20 years. I generated a random selection of schools using an Excel random selection formula. Email invitations to participate in the study were sent to all teachers, school counselors, and administrators at the identified schools, totaling 608 emails. Three schools opted out of participating in the study due to ongoing or upcoming legal proceedings. Two schools consisted of potential participants

that either did not respond or declined to participate. A total of 11 emails were returned as undeliverable and six potential participants declined to participate in the study. A total of 10 people indicated an interest in participating and all 10 were included in the study. I also expanded my sample by using a snowball method to help further identify eligible participants as several schools opted out of participating in interviews due to ongoing legal proceedings related to the shooting events. Two additional participants were identified through this method and included in the study. Overall, invitations to participate in the study resulted in participants from all three time periods. Specifically, participants represented a high school shooting in the 1998-2004 time period, a middle school shooting in the 2004-2011 time period, and a middle and high school shooting in the 2011-2018 time period. Participant names were changed and identifying information was omitted to keep identities confidential.

Materials and Procedure

I read informed consent, including disclosure that participants could withdraw consent at any point, over the phone and obtained verbal agreement to participate in the study prior to interviews. I conducted semi-structured interviews with each participant, transcribed the interviews, analyzed transcripts for themes, and compiled the findings. The instrument included 28 open-ended questions specific to participant experiences and perceptions (See Appendix A). The questions were designed to gain an understanding of how a public-school staff member experienced a school shooting and how they feel about what their school did to offer trauma intervention afterward. I asked three to four questions regarding demographics and school experiences to build rapport with participants. Each interview lasted 30 minutes to 1 hour via telephone. I recorded

interviews using a voice recorder and computer recording, transcribed, coded them to identify themes regarding trauma intervention and public-school shootings.

Data Analysis

I used NVIVO software (QSR International Pty Ltd., 2018) for data analysis to identify, label, sort, and categorize unique themes and conducted several re-readings of all transcriptions including participant member checking of transcriptions to ensuring narrative accuracy, during the interview process and at the conclusion of the study to increase credibility and validity of the study as well as reduce bias. Specifically, I reviewed quotes and themes with all participants by phone to confirm the accuracy of my interpretation. A review of data from each interview used horizontalization methods to identify key statements, sentences, and/or quotes that helped to provide an understanding of each participant's view and/or experience of a school shooting (Moustakas, 1994). I coded and identified various clusters, ideas, and wording to determine common themes among the data (Moustakas, 1994). This was then grouped into textual and structural descriptions to provide a final interpretation of the combined experiences of participants. I used open and axial coding processes (Saldaña, 2016).

Results

Participants consisted of 12 public school teachers, school counselors, and administrators that experienced school shootings. Eight participants were teachers, two were administrators and two were guidance counselors. The age of participants ranged from 29 to 62 years old ($M = 44.33$, mode = 50). The average length of employment in public schools for participants was 11 years (range: 2 years to 20 years of experience). Four schools (2 middle schools and 2 high schools) were represented in the data. There

was one participant from the first middle school, two participants from the second middle school, one from the first high school and eight from the second high school. One of these participants was gained from social media recruitment. Eighty-three percent of participants identified as women and 17% as male.

Themes

Several overarching themes of concerns related to trauma intervention in the aftermath of a school shooting emerged from the interviews. Four primary selective codes were determined as they were the most frequently mentioned themes and are presented as the four emergent themes in this study. The first theme was the perception of support. This theme included three subthemes including emotional support, community support, and tangible support. The second theme was trauma intervention. The subthemes included individual counseling and bonding activities. The third overarching theme identified was unintended negative consequences, including teacher and student attrition, and strained district relationships. Finally, the fourth theme was barriers to trauma intervention and included three subthemes: funding, training, and time constraints. An outline of the various themes from the interview data is displayed to contextualize school staff members' perceptions of trauma intervention in the aftermath of school shootings (see Figure 2.1).

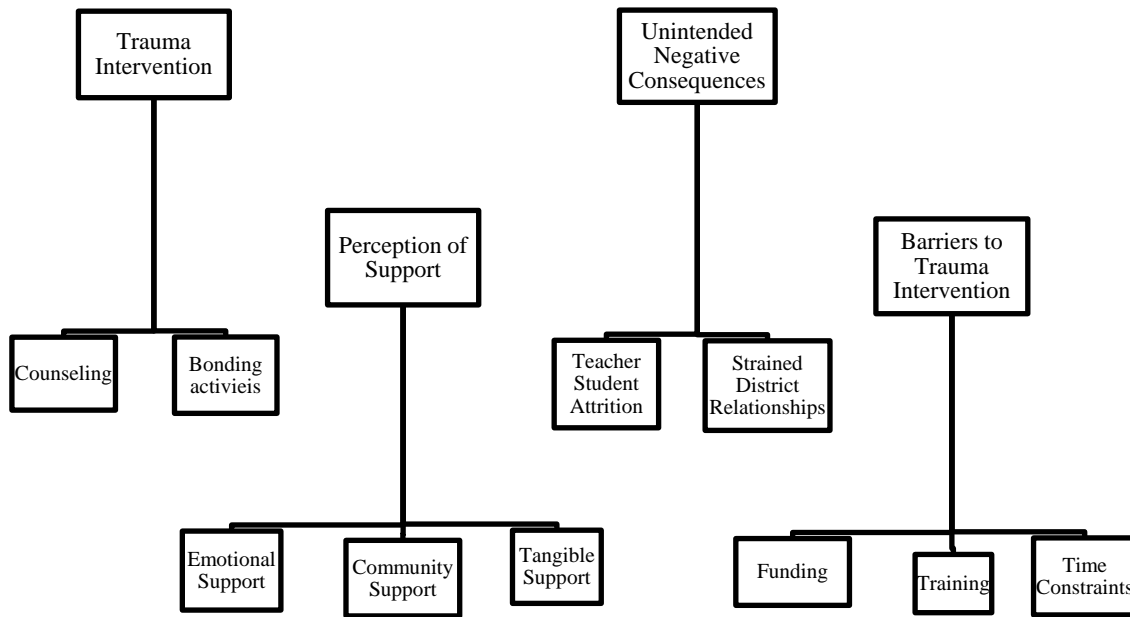


Figure 2.1. Thematic flow chart of data and information received during the interviewing process with correlated sub-themes across four major overarching themes.

Perception of support. To improve trauma intervention following school shootings, social support could be an important factor in communicating to individuals affected by a school shooting that they are cared for and not alone following the incident. Support can manifest in many forms and an individual's perception of support has the potential to have positive or negative effects. Thus, an individual's perception of support received following a school shooting incident could affect the overall ability to cope in the aftermath. Arising from the data were themes of how school staff felt supported or not supported following a school shooting and the ways in which they viewed support provided to students. School staff discussed how support was central to the healing process for both students and staff members and made them feel understood and heard.

Reflections on various types of support suggested that when public schools provided several forms of support (i.e., emotional support, community support, tangible support), school staff had better perceptions of how the school responded and reported overall better adjustment after the shooting event. It should also be noted that the perception of support also appeared to include the perception of lack of support.

Emotional support. All participants discussed the ways in which their schools employed strategies of providing emotional support in the aftermath of a shooting. Various participants placed a strong emphasis on receiving this type of support from public schools after a school shooting. They believed that when schools outwardly offered means of emotional support following the shooting, this provided ways to understand the incident and psychological effects that they may experience. On several occasions, participants mentioned time to process the shooting event, whether this was in praise of how their school offered this support or in criticism of the lack of this type of support. A female science teacher shared:

To bounce back you've got to give people a chance to talk...I'm not sure we were given the opportunity to just sit together as a department first and then as a school and just talk about our feelings. I think that is crucial because some people deal with trauma differently...You've just got to stop and say, you know what, let's all sit together today and instead of having a normal faculty meeting if anybody wants to talk about what happened, how you are doing, I think that would be crucial.

It appeared that despite onsite trauma counseling being offered at every school represented for various periods of time (depending on the school), school staff longed to have time to also process the event together with their fellow shooting survivors. Perhaps this reduced the feelings of being alone through peer support. Various uses of wording such as *togetherness*, *connection*, and *bonding* led me to consider that the concept of

shared experiences of processing is important to the emotional support and healing of school shooting survivors and the trauma intervention process. One school counselor stated:

I wanted to be here to help people and process it together because I felt like when a group of people go through something like this, it's like a bonding experience so I didn't want to miss out on that. There were people that were angry and didn't come, which I thought was a little sad just because I think we heal as a group.

Community support. The concept of community support also appeared to play a major role in the participants' perception of support. Churches, other public schools, local businesses, restaurants, and so forth made efforts to show the schools that they were being thought of and were not alone. These gestures seemed to stick with the study participants no matter how much time had passed since they experienced the school shooting. For example, a female foreign language teacher whose school had a shooting more than a decade ago reflected on her experiences with the community afterward:

I know our local church offered space and we all went there one day to be together and process...I think it's important for anyone who has experienced a shooting to have that access...for churches to continue to support people if they have members of their community.

Similar sentiments were shared from participants whose experiences of a school shooting were less than a year old. Many participants raved about the ways in which people from the community showed support of their schools. A female teacher shared:

It was an incredible outpouring of the community. We got letters, flowers, daily for weeks and weeks and weeks. We'd have food delivered. We had parents call and email and it was amazing. Churches, to other schools, to coffee shops, everybody...By far the positivity and the let us see what we can do to help was out there. It was amazing.

These positive experiences with the local community appeared to have positive effects on study participants and held significant value in some of their trauma healing

processes as one female teacher shared, “the outpouring of love from the community helped me with feeling less unsettled in the building.”

Tangible support. Tangible support was the third subtheme under the perception of support. Participants shared reflections of ways in which small gifts, support persons, donations, and food allowed them to focus their attention on their own personal healing and the healing of students rather than on mundane daily tasks. A female teacher commented on how having additional forms of tangible support like a support person and scripts for interacting with students throughout the day in the aftermath of a shooting assisted her in managing daily tasks amidst experiencing trauma symptoms:

They had given us scripts to read to our kids...They had also given each of us who were having a really hard time a support person. My support person was there in case I had to step out and go see the counselor because I was having another meltdown.

Trauma Intervention

The next theme, trauma intervention, explored the formal and practical psychological resources offered to shooting survivors. When discussing interventions offered, all the participants mentioned counseling for students and school staff, whether they participated in this service or not. Participants unanimously agreed that formal counseling services in the aftermath of school shootings are necessary when managing trauma responses of students and staff members. Trauma counselors were made available to students and school staff on campus during the school day at the expense of the school. However, participants had various perceptions of how and when this service should be provided in order to be most effective for shooting survivors. Participants also mentioned schools engaged in other types of informal trauma intervention strategies mentioned below, including bonding. Participants reinforced this theme through the recollection of

personal experiences with counseling services, bonding activities and the need to assist students with difficult responses to a shooting.

Counseling. Mental health counseling services to manage trauma responses were offered at every public school represented by study participants, particularly immediately after a school shooting. Services were offered on all the school campuses for various lengths of time depending on the school, averaging from a few days to a couple of weeks. Many participants had positive feedback related to the counseling services offered. One female teacher commented about her positive experience with a trauma counselor:

She was really good. She wasn't rushing me to get to the next person. I just felt like she calmly talked to me and gave me some really good tools to use whenever I wasn't with her and was feeling anxious. Remembering to breathe, reminding myself you're not in danger now, all that stuff was really instrumental.

Among the types of counseling services discussed in interviews, one female teacher was the only one to mention a group counseling session for faculty members. She shared her thoughts on how the group went and made sure to note it was offered several years after the shooting incident.

We had nothing and then it was several years later, like three years later, there was a school psychologist that came to offer a support group. And I'll tell you that was wonderful. That support group was just incredible. He actually had done a lot of research on school violence and he wanted to not just go over how we were feeling but also give us more of a sense of preparedness for if it should happen again. So we talked about how we can make our school safer and that was amazing because he did all that of his own volition. It was really well attended too. We really felt helped by that.

In contrast, others offered criticism for the lack of privacy (e.g., lack of confidential therapy offices) and the short length of time counseling services were offered on campus. One teacher discussed some of the limitations of the counseling services offered:

They had four or five counselors set up in one big room and it just felt impersonal to me. You saw everybody talking to everybody so I don't know what else they

could have done to make it more private. They did tell people in letters if you need additional counseling, it's here. I don't know how you handle it...My phone was ringing off the hook and I would answer and the parents would say, "my kid's crying. They saw the shooting, blood everywhere, whatever." At that point, the counselors weren't even on staff anymore. We didn't even have people here at the campus so...unfortunately we have to have a better plan in place for if it happens again.

Bonding activities. In addition to formal counseling, it also appeared that many schools engaged in informal methods of trauma intervention. Participants mentioned one-time activities offered to students and/or faculty members to serve as a method of healing and bonding with their fellow survivors. Some of these activities included but were not limited to school-wide assemblies, painting murals for the school, candlelight vigils, using artwork to decorate the school and/or create memorials, and creating hashtags for social media movements to improve awareness. These activities differed from community support in that they only included participation from students and faculty/staff of the school, not members of the outside community. The positive response received from students and faculty members indicated to many study participants that these types of activities were helpful in processing emotions after the shooting. One male teacher shared how his school's activity seemed to promote the expression of feelings and build community:

There was a program that kids at some other schools had done for anti-violence and so we sent a message to our students if they wanted to come in and make [artwork] they could come and we would try to get the whole school to make [artwork] and then place them in front of the school as a kind of memorial. Just something for the kids to do to express how they were feeling...It was kind of a neat little project just to have the kids express how they were feeling.

Unintended Negative Consequences

As a result of attempting to provide adequate trauma intervention following a school shooting, unintended negative consequences can arise. According to many

interview participants, these types of consequences were often an issue. In some instances, the occurrence of a shooting and perception of inadequate resources following the incident provided by the public-school system significantly affected the morale among faculty members, the desire to teach, and the working relationship with key stakeholders in the public school system. Participants shared that this impacted both teacher and student attrition and was a strain on relationships including those who did not leave.

Teacher and student attrition. One subtheme that emerged within the overarching unintended negative consequences theme was the decision of some teachers and students to leave. Participants shared that following the school shootings, some teachers resigned and/or retired and some parents withdrew their students from the school. Participants reflected on how a school shooting impacted retention rates. One school administrator commented:

A lot of people were taking leaves of absence for very long periods of time. Some kids transferred out of the school...After that year we did notice that some people were let go from their jobs because of the shooting.

Others shared their personal reactions to parents removing their children from their schools following the school shooting: "I did see a jerk reaction; parents immediately withdrew their children. I get it; I understand that." Other participants who chose to stay at their schools following a school shooting noted how the incident affected their teaching styles and passion for the field which could ultimately lead to attrition over time. A female teacher shared:

I felt like I never quite had the same appetite for teaching as I did before the shooting. I was just on fire. We did all kinds of activities that I created myself and afterwards, I felt like, you know what, ultimately chaos seems to be the thing that

guides our lives here because it all matters for nothing when ultimately there is chaos.

Strained district relationships. Additionally, participants reported that relationships with key stakeholders in the public school system were negatively affected by school shooting incidents. Discussions related to the differences in opinions of how schools should handle the aftermath of a school shooting, in many cases, led to discord. A school administrator shared her perspective of her school district's superintendent and the negative impact of his response to their school shooting.

He [superintendent] said: "I don't want you talking to anyone, not even each other because that's how rumors get going" and he said, "I certainly don't want you speaking to the press." He said none of this needs to be talked about, which was insane. How he expected us not to talk to each other...So there was that. I think that the lasting effect was tremendous suspicion and discord with the district office. We don't feel like they are in our corner or that they support us.

Barriers to Trauma Intervention

The final theme that emerged from the interview data was barriers to trauma intervention. Participants discussed how their schools' attempts to provide trauma intervention following a shooting were met with barriers and/or setbacks that were often not addressed easily. Participants reflected on how funding for mental health services, staff training for crisis incidents, and time to address trauma in students in staff often proved difficult for public schools. There were many reflections on what could have been improved. The inevitable discussion of barriers to trauma intervention with participants offered insight into the constraints and/or shortcomings of the public school system, which ultimately affected trauma intervention strategies.

Funding. The most prominent barrier to implementing adequate trauma intervention services following a school shooting reported by participants was funding

and/or budget. Many participants identified ways in which public schools could improve their approach to trauma intervention including, but not limited to, counseling services being offered on campus for longer periods of time, group counseling services, increased mental health staff, prevention programs, and a longer time periods off from school duties to process the event before returning to school. However, money for such strategies was limited and many participants refrained from discussing these ideas with school administration because of this. While discussing the need for adequate mental health services, a school counselor shared the lengths they had to go to get help.

They kind of kept a list of high priority students when the trauma counselors left the building. The district had to write a grant just to get another counselor in the building to work with the students who were close friends with the victim or shooter or who had a hard time coming back to school right away.

Other participants were also vocal about how lack of funding seemed to prevent public schools from accessing adequate resources for trauma intervention. A female teacher shared:

I think money is the basis of all of that because I think having the counselors there, having the support there is super important and I think from what we were told it was hindered by the money. We were lucky because we had a community that came and supported us the way they did but I could also see that not being able to get the whole community together like that in the same degree, I guess.

It is unclear if such budgeting issues stem from limitations of the school system, national disaster and mental health response or routine school budgets. Perhaps, it is all three.

Training. Another barrier to trauma intervention in the aftermath of school shootings was training. Participants shared that they did not feel prepared to handle supporting students in the aftermath of a shooting suggesting a need for supportive services for faculty and staff so that they can support the students. While many discussed

that they had received active shooter training from their school systems to handle an ongoing shooting crisis, none were trained or prepared for trauma in the aftermath.

While reflecting on the trauma symptoms of students and faculty members, a school counselor shared: “We didn’t have a plan in place. They were talking about having a better plan, but I don’t know what that plan is.” A female teacher shared these sentiments by commenting that she lacked the knowledge to identify warning signs or intervene with those who were struggling; something the research suggests trauma-informed care could assist.

I didn’t expect this would ever happen. I didn’t see any signs of it happening, but it’s just unfortunate that people misunderstood. We were kind of left alone and honestly, the teachers needed help. A lot of teachers didn’t know how to cope with it and the whole thing was oh, the students need us there, but we didn’t know how to be there for them either.

It is clear that the roles of teachers as service providers and fellow survivors become blurred in school shooting scenarios. Research is limited in this area.

Time constraints. Additionally, time constraints to engage in trauma intervention were mentioned by participants as impacting support and healing afterward. Discussion of how to improve trauma intervention following a school shooting included the demands on teachers’ time throughout the day and how such intervention should be included within the routine of the school day. A school administrator suggested that if these strategies were not integrated into the school schedule, they would ultimately not work: “If you don’t build it into the schedule, it’s not going to happen. We’re just so slammed with the workload.” Similar comments were made when discussing prevention programs that would require teachers to use class time to check in with students and mediate

conflicts. For a female high school teacher, this suggestion was unreasonable as she shared:

In high school, we just don't have the time. I'm teaching all day so I don't have time to sit down and have circle time with you. Now if I could send you and your buddy to the office and you all sit down and have circle time with somebody else then fine. But unfortunately, we don't have a great system in place for that yet.

Time constraints were also mentioned when discussing time off from school for students and faculty before returning to a normal school schedule. Some participants shared that the school district's emphasis on returning to school due to time allotted in the school schedule for days off was a hindrance to the mental well-being of both students and faculty members. It appeared that the perceived lack of concern for shooting survivors and the prioritizing of school schedule was felt to be a major misstep on the school system's part. A male teacher shared his reflections on this:

We were expected to rise above, almost like we weren't allowed to feel. Do you know what I'm saying? We weren't given the time...I just don't think they really gave us the time to grieve because they expected us to be on for the students. They've got a school that's had a shooting and they wanted to try to get it back into gear.

Discussion

While there is a lot of information available related to the public-school shooting phenomenon, there is a gap in the literature specific to the experiences of survivors and their needs for trauma intervention afterward. This study's overall findings suggest that trauma intervention following a school shooting is highly relevant to the discussion of public-school shootings and is a primary concern of many public-school staff (e.g., teachers, counselors, administrators). Specifically, I gathered a consistent reporting from public school staff of concerns for strategic trauma response to school shootings. These concerns ultimately shed light on challenges to trauma intervention following school

shootings including more time with trauma counselors on campus following a shooting including private spaces to conduct counseling services; time in the school schedule for students or coverage of classes for teachers while individuals access counseling services; support groups and/or group gatherings to process the incident with other survivors; more preparation of teachers and staff for supporting students; more recognition of the benefit of community support and involvement; more attention paid to faculty and student attrition as a result of a shooting; more focus on providing knowledge and skills for dealing with trauma.

Support

Perception of support appeared to play an important role in participants' perception of their school's trauma intervention strategies as well as their own perceived ability to manage trauma-related symptomology. Many participants whose schools received emotional support (e.g., counseling services), community support (e.g., candlelight vigils, community events, etc.) and tangible support (e.g., food donations, cards, etc.) appeared to have more positive perceptions of their schools' trauma intervention strategies in comparison to those who did not perceive this support; a concept consistent with literature on protective factors for those exposed to violence such as social support and community support (Jain et al., 2012; La Greca et al., 2010; La Greca et al., 1996; Salloum & Overstreet, 2012). Although these participants did not report fewer trauma symptoms following the school shooting, they did report feelings of gratitude and hope in response to the added support, which was in direct contrast to participants who did not perceive these types of supports and reported feelings of bitterness and abandonment.

Also noted was the positive effect of all three types of support: emotional, community and tangible, which are identified in literature as protective factors that help reduce mental health symptoms (Bernard, 2004; Jain et al., 2012; Larson, 2000; Luthar & Zelano, 2003; Resnick et al., 1997; Werner & Smith, 2001). Participants received an array of combinations of these supports, but it appeared that the more supports they received, the more positive their statements were regarding their school's trauma intervention strategies and the less they reported trauma symptoms. This was consistent with the literature on the correlation between perceived support and trauma symptoms (Lee, 2019). The concept of shared experiences of processing also appeared to be important to the emotional healing of school shooting survivors and the trauma intervention process. This concept is well documented in trauma literature (Maio & Jorgensen-Wagers, 2018; Openshaw, 2011; Tosone et al., 2012).

Barriers

The findings of the study also aligned with existing literature which suggests that funding is a major barrier to implementing trauma intervention after a school shooting (Martin et al., 2017; Teasley, 2018). Participants often mentioned that some school budgets hinder this process suggesting a need for state or national funding since district funding would likely show wide disparities between districts and lack of funding equity (Reignbergs & Fefer, 2017). Some reported that their schools had to apply for special grants in order to get more counselors on the school's campus to address the needs of students and faculty members similarly to findings in existing literature (Office of Texas Governor, 2018). This was reportedly a slow process but could be expedited by implementing an administrative partner organization to help with processing federal

grants (Centers for Disease Control and Prevention [CDC], 2017). As previously mentioned, many reported that the counselors were not on campus long enough and this was cited as an issue related to budget as well.

Time constraints also affected the quality and implementation of trauma intervention strategies that a public school may offer based on participant support. For example, time constraints related to both the overall yearly school calendar and the school day prevented public schools from offering more time off for students and faculty members to process and grieve their loss and prevented teachers and students from receiving consistent mental health treatment throughout the day. This finding paralleled with existing literature on barriers to trauma intervention implementation in schools (Langley et al., 2010; National Child Traumatic Stress Network, Schools Committee, 2017).

Long-Term Risk

The lack of involvement of public-school officials in the pursuit of long term, consistent, and easily accessible mental health resources during critical time periods following a school shooting has been made very clear. Despite some not using the mental health services, many of the participants, whether they used the services or not, verbalized that they should have been offered for longer periods of time for those who continue to struggle with trauma symptoms or experienced a delayed trauma response. This suggests that previous trauma research that posits optimal trauma treatment can occur a few to several months after a traumatic incident is a critical consideration in a school shooting scenario (Balbo et al., 2019; Dyregrov, 1997; Levine, 2015). In these cases, a larger system of intervention should be put in place. On the one hand, some

argue that individuals who experience this type of trauma are not likely to seek mental health services for many reasons and this is the underlying problem (Mazzei & Jordan, 2019). However, these findings suggest that long term access to mental health support that can be remediated beginning with suicide awareness and screening (Mazzei & Jordan, 2019; Ritchie, 2003). Some argue that it is the responsibility of the school district and government to adequately assess high-risk individuals following a school shooting and persistently encourage and provide access to appropriate resources in the aftermath. The issues of time, resources, funding, mental health stigma, and competing roles and responsibilities persist.

Implications

Implementing a model within public schools that improves communication among school staff, shared processing experiences for survivors, access to trauma intervention resources, and support services while minimizing the effects of barriers such as funding and time/schedule must include the efforts of many public-school personnel and of community policy and resources. This will require larger governmental and community response (since impacted system administrators/staff are survivors themselves) and must address both prevention and intervention. The above-mentioned research also suggests an increase in future funding to address the barriers of trauma intervention services among youth and schools either through school-based programs or supportive collaborations among community and health organizations. The involvement of state and federal departments of education and national organizations of teachers would aid in providing these resources to impacted schools as such organizations have the knowledge, platform, and reach to offer a wide range of resources systematically.

Finally, the voices of school staff regarding their experiences and needs are critical to understanding changes that might better address the trauma intervention needed following a school shooting. Though resources in many U.S. public schools are limited, an interdisciplinary approach could allow for more creative trauma interventions following school shootings (Henry, 2009; Mongan et al., 2009; Openshaw, 2011; Thomas et al., 2019). Research also suggests the broader lens for school shooting intervention includes trauma-informed care in schools in addition to training for those who would provide resources within the school structure (Cavanaugh, 2016; Lai et al., 2018; Mendelson et al., 2015; Thomas et al., 2019; Reinbergs & Fefer, 2017; Wiest-Stevenson & Lee, 2016).

An example of a model that incorporates many of this study's identified needs is the Trauma-Informed Positive Education (TIPE) model. TIPE is a trauma-informed model that offers communication among school staff, shared processing opportunities for staff, access to trauma intervention resources for staff and students, training in trauma support for staff facilitating trauma-informed care, potential for long term trauma implementation and support, prevention and intervention modules, and minimal effects of barriers such as time since the model can be integrated within the school schedule (Brunzell et al., 2019). TIPE integrates teaching strategies from two practice paradigms: trauma-informed education and positive education in order to educate vulnerable students who struggle in school due to trauma histories from abuse, neglect, and/or violence while also supporting school staff (Brunzell et al., 2019). This type of structure is ideal for a school shooting scenario where both students and school staff need support. In this model, school staff help to build relationships with students by using attachment and

unconditional positive regard (Brunzell et al., 2019). Other strategies include increasing psychological resources for wellbeing by promoting character strength, growth mindset, and reaching goals through flow (Brunzell et al., 2019). Future research could include comparisons between public schools that implement interdisciplinary, trauma-informed intervention models such as TIPE following school shootings and similar schools that do not. Other implications that should be considered include, but are not limited to, policy and budget changes regarding access to mental health services following school shootings to facilitate access to help.

Limitations

The present study was conducted using a phenomenological, case study method, which has considerable drawbacks due to a lack of experimental conditions. Limitations for this study include two-thirds of the sample coming from one school (perhaps due to the difference in the size of the schools that participated in the study) and the inherent roles of participants (i.e., teacher, counselor, administrator) potentially having significant differences in their experiences of school shootings. Additionally, the retrospective nature of data collection makes it vulnerable to recall bias. Despite these limitations, we support that the methodology offered an in-depth look at the experience of school shooting survivors and their healing process in addition to helping to identify questions for a larger-scale investigation.

Conclusion

Discussion of trauma intervention following school shootings is often minimized in favor of prevention strategies that unfortunately have yet to work, as there continue to be reports of shootings in U.S. public schools. The effects of experiencing a school

shooting along with the recently reported deaths of school shooting survivors indicate that there is a pressing need to focus on trauma intervention in the aftermath of these tragic incidents. The reflections of school staff who have experienced school shootings used during this study offer insight to more adequately address the needs of students and faculty members who have also survived school shootings. This knowledge can assist public schools in increasing their awareness of the daily struggles of students and faculty members and develop improved responses. It can also encourage individuals with these experiences to advocate for themselves and the resources that they need in order to reach the level of healing needed to improve daily functioning and decrease maladaptive responses to trauma. It is overwhelmingly clear from these interviews with survivors of school shootings that the effects of trauma following a school shooting prove to be far too great to ignore any longer.

References

- Allen, M., Burt, K., Bryan, E., Carter, D., Orsi, R., & Durkan, L. (2002). School counselors' preparation for and participation in crisis intervention. *Professional School Counseling, 6*, 96-102.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental health disorders* (5th ed.). Arlington, VA: Author.
- Balbo, M., Cavallo, F. & Fernandez, I. (2019). Integrating EMDR in psychotherapy. *Journal of Psychotherapy Integration, 29*, 23-31. doi: 10.1037/int0000136
- Benard, B. (Ed.). (2004). *Resiliency: What we have learned*. San Francisco, CA: WestEd
- Brunzell, T., Stokes, H., & Waters, L. (2019). Shifting teacher practice in trauma-affected classrooms: Practice pedagogy strategies within a trauma-informed positive education model. *School Mental Health: A Multidisciplinary Research and Practice Journal*, p.1-15, doi: 10.1007/s12310-018-09308-8
- Cavanaugh, B. (2016). Trauma-informed classrooms and schools. *Beyond Behavior, 25*, 41-46.
- Centers for Disease Control and Prevention. (2017, October 20). Expediting the federal grant process with an administrative partner. Retrieved from <https://www.cdc.gov/publichealthgateway/grantsfunding/expediting.html>
- Center for Homeland Defense and Security at Naval Postgraduate School. (2019). K-12 school shooting database. Retrieved from <https://www.chds.us/ssdb/category/graphs/>

- Cox, J. W. & Rich, S. (2018, March). Scarred by school shootings. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/graphics/2018/local/us-school-shootings-history/>
- Craig, S. (2017). *Trauma-sensitive schools for the adolescent years: Promoting resiliency and healing, grades 6-12*. New York, NY: Teachers College Press.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications.
- Duplechain, R. & Morris, R. (2014). School violence: Reported school shootings and making schools safer. *Education*, 135(2), 145-150.
- Dyregrov, A. (1997). *Supporting traumatized children and teenagers: A guide to providing understanding and help*. Philadelphia, PA: Jessica Kingsley Publishers.
- Evans, A. & Coccoma, P. (2014). *Trauma-informed care: How neuroscience influences practice*. New York: NY: Routledge.
- Fein, A. H., Carlisle, C.S., & Isaacson, N. S. (2008). School shootings and counselor leadership: Four lessons from the field. *Professional School Counseling*, 11, 246-252.
- Gun Violence Archive. (2012). General Methodology. Retrieved from <https://www.gunviolencearchive.org/methodology>
- Henry, S. (2009). School violence beyond Columbine: A complex problem in need of an interdisciplinary analysis. *American Behavioral Scientist*, 52, 1246-1265. doi: 10.1177/0002764209332544

- Jain, S., Buka, S. L., Subramanian, S. V., & Molnar, B. E. (2012). Protective factors for youth exposed to violence: Role of developmental assets in building emotional resilience. *Youth Violence and Juvenile Justice*, 10, 107-129. doi: 10.1177/1541204011424735
- La Greca, A. M., Silverman, W. K., Vernberg, E. M., & Prinstein, M. J. (1996). Symptoms of posttraumatic stress in children after Hurricane Andrew: a prospective study. *Journal of Counseling and Clinical Psychology*, 64, 712-723.
- La Greca, A. M., Silverman, W. K., Lai, B., & Jaccard, J. (2010, October 11). Hurricane related exposure experiences and stressors, other life events, and social support: concurrent and prospective impact on children's persistent posttraumatic stress symptoms. *Journal of Consulting and Clinical Psychology*, Advance online publication. doi:10.1037
- Lai, B. S., Osborne, M. C., Lee, N., Self-Brown, S., Esnard, A., & Kelley, M. L. (2018). Trauma-informed schools: Child disaster exposure, community violence, and somatic symptoms. *Journal of Affective Disorders*, 238, 586-592. doi: 10.1016/j.jad.2018.05.062
- Lamb-Sinclair, A. (2018, February 22). Teaching while afraid: In an era of school shootings, educators are carrying burdens bigger than they ever imagined. *The Atlantic*. Retrieved from <https://www.theatlantic.com/education/archive/2018/02/teaching-while-afraid/553931/>

- Langley, A. K., Nadeem, E., Kataoka, S. H., Stein, B. D. & Jaycox, L. H. (2010). Evidence-based mental health programs in schools: Barriers and facilitators of successful implementation. *School Mental Health*, 2, 105-113. doi: 10.1007/s12310-010-9038-1
- Larson, R. W. (2000). Toward a psychology of positive youth development. *American Psychologist*, 55, 170–183.
- Lee, J. H. (2013). School shootings in the U.S. public schools: Analysis through the eyes of an educator. *Review of Higher Education and Self Learning*, 6, 88-120.
- Lee, J-S. (2019). Perceived support functions as a resilience in buffering the impact of trauma exposure on PTSD symptoms via intrusive rumination and entrapment in firefighters. *PLos One*, 14, e0220454. doi: 10.1371/journal.pone.0220454
- Lerner, M., Volpe, J., & Lindell, B. (2003). *A practical guide for crisis response in our schools: Acute traumatic stress management, empowering educators during traumatic events*. Commack, NY: American Academy of Experts in Traumatic Stress.
- Levine, P. A. (2015). *Trauma and memory: Brain and body in a search for the living past: A practical guide for understanding and working with traumatic memory*. Berkeley, CA: North Atlantic Books.
- Luthar, S. S., & Zelano, L. B. (2003). Research on resilience: An integrative review. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 510–549). New York, NY: Cambridge University Press

- Maio, J. & Jorgensen-Wagers, K. (2018). Efficacy of group cognitive processing therapy in an intensive outpatient trauma program for active duty service members with post-traumatic stress disorder. *Best Practices in Mental Health, 14*, 64-81.
- Martin, S. L., Ashely, O. S., White, L., Axelson, S., Clark, M., & Burrus, B. (2017). Incorporating trauma-informed care into school-based programs. *Journal of School Health, 87*, 958-967. doi: 10.1111/josh.12568
- Mazzei, P. & Jordan, M. (2019, March 28). You can't put it behind you: School shootings leave long trail of trauma. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/03/28/us/parkland-shooting-suicides-newtown-mental-health.html>
- Mendelson, T., Tandon, S. D., O'Brennan, L., Leaf, P. J., & Ialongo, N. S. (2015). Brief report: Moving prevention into schools: The impact of trauma-informed school-based intervention. *Journal of Adolescence, 43*, 142-147. doi: 10.1016/j.adolescence.2015.05.017
- Mongan, P., Hatcher, S. S., & Maschi, T. (2009). Etiology of school shootings: Utilizing a purposive, non-impulsive model for social work practice. *Journal of Human Behavioral in Social Environment, 19*, 635-645. doi: 10.1080/10911350902910583
- Moore, K. W., & Varela, R. E. (2010). Correlates of long-term posttraumatic stress symptoms in children following Hurricane Katrina. *Child Psychiatry Human Development, 41*, 239-250. doi:10.1007/s10578-009-0165-6.
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.

- Mutch, C. & Gawith, E. (2014). The New Zealand earthquakes and the role of schools in engaging children in emotional processing of disaster experiences. *Pastoral Care in Education*, 32, 54-67.
- National Child Traumatic Stress Network, Schools Committee. (2017). *Creating, supporting, and sustaining trauma-informed schools: A system framework*. Los Angeles, CA and Durham, NC: National Center for Child Traumatic Stress.
- National Child Traumatic Stress Network (2018). *School shootings and their effect on student mental health*. Retrieved on July 31, 2019 from <https://www.nctsn.org/what-is-child-trauma/trauma-types/terrorism-and-violence/school-shooting-resources>
- Novotney, A. (2018, September). What happens to the survivors. *Monitor on Psychology*, 49(8). Retrieved from <https://www.apa.org/monitor/2018/09/survivors>
- Office of the Texas Governor. (2018, August 30). Governor Abbott releases school safety action plan summary [Press release]. Retrieved from <https://gov.texas.gov/news/post/governor-abbott-releases-school-safety-action-plan-summary>
- Openshaw, L. L. (2011). School-based support groups for traumatized students. *School Psychology International*, 32, 163-178. doi: 10.1177/0143034311400830
- Paradice, D. (2017). An analysis of U.S. school shooting data (1840-2015). *Education*, 138, 135- 144.

- Perfect, M., Turley, M., Carlson, J., Yohanna, J., & Saint Gilles, M. (2016). School-related outcomes of traumatic event exposure and traumatic stress symptoms in students: A systematic review of research from 1990 to 2015. *School Mental Health, 8*, 7-43, doi: 10.1007/s12310-016-9175-2
- QSR International Pty Ltd. (2018). NVivo Version 12 [computer software]. Retrieved from <https://www.qsrinternational.com/nvivo/nvivo-products/nvivo-12-plus>
- Reinbergs, E. J. & Fefer, S. A. (2017). Addressing trauma in schools: Multitiered service delivery options for practitioners. *Psychology in Schools, 55*, 250-263. doi: 10.1002/pits.22105
- Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., Jones, J., ... Udry, J. R. (1997). Protecting adolescents from harm: Findings from the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association, 278*, 823–832.
- Richmond, E. (2018). Parents' fear for kids' safety in schools reaches a two-decade high. *U.S. News & World Report*. Retrieved from <https://www.usnews.com/news/education-news/articles/2018-07-17/parents-fear-for-kids-safety-in-schools-reaches-two-decade-high>
- Riley, P. & McDaniel, J. (2000). School violence, prevention, intervention, and crisis response. *Professional School Counseling, 4*, 120-125.
- Ritchie, E. C. (2003). Mass violence and early intervention: Best practice guidelines. *Primary Psychiatry, 10*, 43-48.
- Saldaña, J. (2016). *The coding manual for qualitative researchers*. Thousand Oaks, CA: SAGE Publications.

- Salloum, A. & Overstreet, S. (2012). Grief and trauma intervention for children after disaster: Exploring coping skills versus trauma narration. *Behaviour Research and Therapy*, 50, 19-179. doi: 10.1016/j.brat.2012.01.001
- Saltzman, W. R., Pynoos, R. S., Layne, C. M., Steinberg, A. M., & Aisenberg, E. (2001). Trauma- and grief focused intervention for adolescents exposed to community violence: Results of a school-based screening and group treatment protocol. *Group Dynamics: Theory, Research, and Practice*, 5, 291-303.
- Saltzman, W. R., Pynoos, R. S., Layne, C. M., Steinberg, A. M., & Aisenberg, E. (2003). School-based trauma and grief intervention for adolescents. *Prevention Researcher*, 10, 8-11.
- School shootings and their effect on student mental health. (2018). [Special Report]. *Curriculum Review*, 58(4), 8.
- Suomalainen, L., Haravuori, H., Berg, N., Kiviruusu, O., Marttunen, M. (2011). A controlled follow-up study of adolescents exposed to a school shooting – psychological consequences after four months. *European Psychiatry*, 26, 490-497. doi: 10.1016/j.eurpsy.2010.07.007
- Teasley, M. L. (2018). School shootings and the need for more school-based mental health services. *Children & Schools*, 40, 131-134. doi: 10.093/cs/cdy015
- Thomas, M. S., Crosby, S. & Vanderhaar, J. (2019). Trauma-Informed practices in schools across two decades: An interdisciplinary review of research. *Review of Research in Education*, 43, 422-452. doi: 10.3102/0091732X18821123

- Tosone, C., Nuttman-Shwartz, O., & Stephens, T. (2012). Shared trauma: When the professional is personal, *Clinical Social Work Journal*, 40, 231-239. doi: 10.1007/s10615-012-0395-0
- U. S. Department of Justice. (2013). A study of active shooter incidents in the United States between 2000 and 2013. Retrieved from <https://www.fbi.gov/file-repository/active-shooter-study-2000-2013-1.pdf/view>
- Werner, E. E., & Smith, R. S. (2001). *Journeys from childhood to midlife: Risk, resilience and recovery*. Ithaca, NY: Cornell University Press
- Wiest-Stevenson, C. & Lee, C. (2016). Trauma-Informed Schools. *Journal of Evidence-Informed Social Work*, 13, 498-503. doi: 10.1080/23761407.2016.1166855
- Wolfe, E. & Walker, C. (2019, November 19). In 46 weeks this year, there have been 45 school shootings. CNN. Retrieved from <https://www.cnn.com/2019/11/15/us/2019-us-school-shootings-trnd/index.html>
- Yan, H. & Park, M. (2019, March 26). 1 week. 3 suicides. 1 tragic connection to school massacres. *CNN*. Retrieved from <https://www.cnn.com/2019/03/26/us/school-shootings-suicides/index.html>

CHAPTER THREE

Public School Trauma Intervention for School Shootings: A National Survey of School Leaders

Abstract

Trauma intervention in United States' (U.S.) public schools is varied. Increased occurrences of traumatic experiences in children and adolescents have subsequently increased awareness of the need to address trauma in schools. The occurrence of public school shootings across the U.S. has contributed to this awareness and elicits questions related to how public schools currently address and provide resources related to trauma to employees and students. I conducted a randomized, national survey of public school teachers, guidance counselors, and administrators to gather information on public-school preparedness for and response to trauma. Findings indicated that only 16.9% of respondents indicated their schools have trauma or crisis plans that address issues related to school shootings or provide trauma intervention strategies that can be used in the aftermath of a shooting. Also, public schools use a variety of strategies to address trauma in schools including mental health services, peer mentoring and trauma-informed skills, but teachers, guidance counselors, and administrators were often unsure about the effectiveness of these trauma interventions in the event of school shootings.

Keywords: Trauma, public schools, trauma intervention, school shootings, K-12 schools, trauma-informed

Introduction

Among public schools in the United States (U.S.), school leaders such as teachers, guidance counselors, and administrators serve on the front lines of student and school needs. Literature indicates that during the typical academic year, school leaders manage school and student needs including but not limited to student academic performance, school activities and events, school district performance, and student mental and psychological health (National Center for Safe Supportive Learning Environments, 2019). The issue of addressing trauma, particularly trauma following school shootings is no exception. Public school shootings in the United States have grown in prevalence in the last 20 years (Grabow & Rose, 2018). Since 2009, school shooting incidents in the United States have surpassed a combination of six other developed countries by 57 times, making shootings and related trauma symptoms a very real concern for many schools across the nation (Grabow & Rose, 2018).

Negative consequences related to school shootings include trauma symptoms, making trauma intervention an important issue for public schools in the United States. Addressing student trauma in schools has increased awareness and need by way of trauma-informed programs and models for schools. Many schools in the U.S. have adopted trauma-informed strategies to help address student behavior and issues stemming from traumatic experiences (Reinbergs & Fefer, 2018). However, it is unclear if these strategies are being used in all public schools and what strategies are being used altogether. Additionally, it is unclear if such strategies are sufficient for addressing the trauma related to public school shootings.

The purpose of this study was to conduct a national survey of public-school teachers, guidance counselors, and administrators to explore the role of public schools in

managing the psychological effects of school-based traumatic incidents such as school shootings. The following research question was addressed:

1. What programming and resources are U.S. public schools providing or providing access to for students, public school teachers, guidance counselors, and administrators related to school shootings and/or surviving school shootings?

Literature Review

U.S. public schools and education systems have undergone criticism related to the management of trauma or perhaps lack thereof, in the aftermath of public-school shootings (Jamieson, 2019). The effects of trauma-related to experiencing a school shooting can put individuals at risk for mental health disorders such as depression, anxiety, post-traumatic stress disorder (PTSD), acute stress disorder as well as sleep disturbances, emotion dysregulation, poorer academic performance and classroom behaviors, lower grade point average, increased school absences, relationship difficulties, decreased work satisfaction, and substance abuse (Hansel et al., 2010; Hurt, Malmud, Brodsky & Giannetta, 2001; Love & Cobb, 2012; Mathews, Dempsey, & Overstreet, 2009; Mendelson, Tandon, O'Brennan, Leaf, Ialongo, 2015; Thompson & Rippey Massat, 2005). Research to examine public school response to school shootings has led to possible methods of providing support to students but lacks information regarding ways to support faculty and staff or commonalities in plans and/or programs used among public schools across the U.S. (Mendelson et al., 2015). Due to the significance of the psychological effects of public-school shootings, research warrants more answers related to how to better manage trauma-related to public school shootings. This gap in the

literature suggests that barriers may exist for methods to manage the impact of trauma in schools in general, but especially following school shootings. Specifically, recent public-school shootings and other forms of school violence have contributed to trauma symptoms in students and school employees to the extent that this has now been deemed a public health issue (Center for Disease and Control, 2016). Some public school employees that have experienced school shootings note the need for improved methods of addressing ongoing trauma responses in those who have survived school shootings (Alexander & Harris, submitted manuscript, 2019). Yet the question still remains: how can public schools address on-going trauma and distress in students and school employees following school shootings?

The U.S. Department of Education (USDOE) has identified a need for a response in the school community to facilitate the healing process when responding to traumatic events (USDOE, 2006). It has emphasized the need for strong leadership at the school and district levels to facilitate a quick response that is effective and efficient (Love & Cobb, 2012; National Child Traumatic Stress Network, Schools Committee, 2017). There is also an identified critical need for emergency management planning to include recovery as a part of its process in school-based plans prior to an incident, despite the unpredictability of any emergency (Love & Cobb, 2012). Research indicates that “interventions are most effective when schools pre-determine an action plan, train staff to respond with correct intervention techniques, and seamlessly transition into crisis intervention and support mode” (Openshaw, 2011, p.163). An overview of the research of organizational response to traumatized individuals in public schools includes, but is not limited to, the use of trauma-informed classrooms, trauma-informed strategies, and

trauma-sensitive school models in the United States. Discussion of school shootings in the U.S., the nature of trauma, trauma-informed care, and best practices for trauma response and treatment in schools are areas of knowledge that also contribute to this important topic.

Public-School Response to Trauma

Schools are an appropriate and practical place to help students and school employees recover from tragedy as reported by the National Institute of Mental Health: “when violence or disaster affects a whole school or community, teachers and school administrators can play a major role in the immediate recovery process by providing specific structured and semi-structured activities” (Love & Cobb, 2012, para 2; National Institute of Mental Health, 2001). Instances of school shootings have increased school administrators’ awareness of the need for crisis plans and according to the U.S. Government Accountability Office (2007), approximately 95% of schools nationwide have a crisis plan in place (Openshaw, 2011). However, though “many schools have well-developed emergency management plans, an important piece consistently missing from plans is post-crisis recovery” (Love & Cobb, 2012, para 5). Following school crises, interventions can range from individual counseling to large debriefing groups and/or assemblies (Nader & Muni, 2002). However, school leaders (e.g., public school teachers, guidance counselors, and administrators) report that public schools are struggling with adequate responses to trauma in the aftermath of traumatic events like school shootings (Alexander & Harris, submitted manuscript 2019). Despite providing access to mental health resources for students, faculty, and staff members, many report that public schools are missing the mark in providing adequate care related to trauma for those who have

experienced school shootings (Alexander & Harris, submitted manuscript 2019).

“Attention to childhood trauma and the need for trauma-informed care has contributed to the emerging discourse in schools related to teaching practices, school climate, and the delivery of trauma-related in-service and preservice teacher education” (Thomas, Crosby, & Vanderhaar, 2019, p.423). In other words, increases in child and adolescent exposure to trauma have fostered the discussion and motivating implementation of trauma-informed school models and trauma-informed teaching methods among public schools in the U.S. This may be helpful in addressing the gap in trauma intervention at public schools in the aftermath of school shootings.

Trauma-Informed Practices

The National Child Traumatic Stress Network posits that creating a trauma-informed system involves “one in which all parties recognize and respond to the impact of traumatic stress” (National Child Traumatic Stress Network, 2019, para1). Trauma-informed care systems can vary from setting to setting. However, commonalities in a trauma-informed perspective often include routine screening for trauma exposure, use of evidence-based, culturally responsive assessment and treatment for traumatic stress, and access to resources on trauma exposure and its impact. These approaches strengthen resilience and protective factors of those impacted by trauma. This mitigates the impact of trauma on other systems (i.e., family, school, etc.), emphasizing continuity of care and collaboration, and maintaining an environment that addresses and minimizes trauma triggers and increases wellness (National Child Traumatic Stress Network, 2019).

Though all these components are important to the trauma-informed response, priorities lie in activities that build meaningful partnerships at the individual and organizational level

and address the intersections of trauma and its compounding impact on traumatized individuals (National Child Traumatic Stress Network, 2019). The use of trauma-informed care in schools specifically in regard to school shootings raises many questions such as how practices may change over time and how practices may vary in schools with shooting history and schools without shooting history. When dealing specifically with school shooting survivors, trauma exposure is, unfortunately, a substantive issue, making trauma-informed care an appropriate intervention tool for public schools to use to address trauma symptoms. In school settings, trauma-informed practices could involve strategies such as viewing behavior through a trauma lens, i.e., asking, “What’s going on?” before issuing disciplinary actions for misbehaving students and addressing self-care for program delivery staff members (Martin et al., 2017).

Trauma-Informed Models and Practices in Schools

In many states, trauma-informed practice is connected to social and emotional learning, school safety, school discipline and/or Positive Behavior Interventions and Supports (PBIS) (Thomas et al., 2019). Schools may offer resources to teachers and staff members like toolkits, research or practice briefs, guidebooks, PowerPoint slides, and online training and learning modules (Thomas et al., 2019). Many approaches focus on the individual student or teacher-student interaction and how it can be adapted to support student emotional, social and academic growth following trauma exposure. For a school to be trauma-informed, there need to be several components and/or foundational principles addressed including building a sense of community, social and emotional connectedness, facilitating knowledge of prevalence and impact of trauma, building capacity of educators and caregivers, empowerment and resiliency, and promoting

mindset change by addressing cause of behavior and social justice (McConnico, Boynton-Jarrett, Bailey, & Nandi, 2016).

Overall, among the enormous amount of resources used in schools, there is quite a bit of overlap in the core content of the various trauma-informed approaches and frameworks. In fact, many resources involve the use of a similar tiered PBIS framework: Tier I (universal for 100% of students), Tier II (targeted students, 15%), and Tier III (intensive students, 5%) (Wisconsin Department of Public Instruction, 2018). Literature regarding trauma-informed school methods suggests that these types of school settings should include “efficient methods for assessing child health and mental health” in post-trauma environments (Lai et al., 2018). This is especially important for public schools because they are often the primary provider of mental health services for children (Evans, Stephan, & Sugai, 2014). Further, in many cases, early assessment and screening is preferred and should account for instances of complex trauma such as for students who have experienced past exposure to community violence (Lai et al., 2018).

Implementation of trauma-informed models at school has been slower to develop across U.S. public schools, however, despite recommendations. Contexts, where trauma-informed practices are most heavily promoted, include high poverty schools, alternative programs, large urban districts, and rural settings (Thomas et al., 2019). These trends are disheartening since research indicates that trauma-informed models can be applied to any program, organization or system that 1.) realizes the widespread impact of trauma and understands potential paths of recovery, 2.) recognizes the signs of symptoms of trauma in the clients, families, staff, and others involved with the system, 3.) responds by fully integrating knowledge about trauma into policies, procedures, and practices and 4.) seeks

to actively resist re-traumatization (National Center for Trauma-Informed Care, 2015). By these standards, all public schools could be appropriate for trauma-informed practices. Additionally, school shooting incidents have historically occurred in schools that are not associated with high poverty, alternative programs, or large urban districts (where trauma-informed practices are heavily promoted) leaving them vulnerable to inadequate trauma management following a shooting. However, the more pertinent task seems to lie in determining how to implement and evaluate trauma-informed models in schools that have experienced school shootings and if this is an effective trauma response plan for them.

Barriers to Trauma-Informed Practices in Schools. A key problem that exists with trauma intervention in schools is the gap between evidence-based interventions and their implementation in the real world (Reinbergs & Fefer, 2018). Barriers that may contribute to lack of implementation or unsuccessful implementation of trauma-informed models in public schools often include factors such as “lack of support from administrators and teachers, competing teaching responsibilities, problems engaging parents, especially if the language about trauma-informed care feels threatening, and stigma regarding mental health concerns” (Martin et al., 2017, p. 960). Saltzman, Pynoos, Laynes, Steinberg, and Aisenberg (2001, 2013) posit that two of the challenges with school-based programs for trauma-exposed youth are under-identified youth despite when school personnel is involved in the referral process and those who are identified not attending initial treatment. Also, those who do engage in treatment initially often do not remain for sufficient time (Saltzman et al., 2003). Other factors that may pose a hindrance to school-based support or implementing trauma-informed models are cultural

barriers that may make it difficult for staff members to recognize trauma-related symptoms or differentiate them from other difficulties such as cognitive or language delays, flexibility and cooperative coordinating efforts needed for on-campus supports, rigid time schedules for schools potentially affecting need for sufficient time to process grief or trauma, and transportation issues that may prevent support services from occurring before or after school (Martin et al., 2017; Openshaw, 2011).

Advantages of trauma-informed care in schools. Despite these barriers, the advantages of trauma-informed care in public schools far outweigh any disadvantages of barriers. For example, outcome evaluations for trauma-informed approaches in schools have suggested that there are many positive benefits for students, teachers, and schools. These benefits include decreases in students' symptoms of trauma, PTSD, anxiety and avoidant coping strategies, improvement in students' emotion regulation, social academic competence, classroom behavior and discipline, improvement in students' grades, test scores and graduation rates, and decreases in students' suspensions and expulsions (Martin et al., 2017). Additionally, for some schools that struggle with implementing full trauma-informed models system-wide, the flexibility of the trauma-informed approach provides a real possibility. Because trauma-informed approaches can be applied to specific educational practices and strategies, this may assist with a school's ability to implement trauma-informed care. Trauma-informed practices can include one or a combination of "supports for student safety, positive interactions, peer supports, targeted supports and strategies that support the individualized needs of students" (Cavanaugh, 2016, p. 41). The National Task Force of Children Exposed to Violence posits that "taking steps to restore a child's life after exposure to violence is not a luxury, it is a

necessity (Martin, et al., 2017, p.964). Traumatized students should be provided with trauma-informed care in addition to any appropriate evidence-based trauma-specific treatments they need to minimize the long-term effects that trauma can create (Martin et al., 2017).

Trauma-Informed Models and Practices in Schools with Shooting History

Trauma-informed supports are, arguably, equally as important for school staff when discussing school shooting scenarios. Application of trauma-informed models in public schools, however, may be difficult when specifically related to school shootings because schools would need to address the trauma for faculty members in addition to students. Trauma-informed school models in response to school shootings should consider how such models will affect teachers and staff members who may be experiencing similar trauma symptoms. One of the nuances of managing trauma in the aftermath of public-school shootings involves attending to the trauma of both students and faculty and staff members (Alexander & Harris, submitted manuscript 2019). While trauma-informed school models are beneficial to students who have experienced trauma, one must question, in scenarios related to public school shootings, if a trauma-informed model that often relies heavily on facilitation from teachers and school staff members is beneficial for their healing and potential trauma symptoms or how such a model can be adapted so that it is beneficial for all and provided the support needed for faculty/staff. Literature in this area is limited and has yet to address disadvantages or advantages for school faculty and staff administering trauma-informed practices for instances of shared traumatic experiences like school shootings. Due to the varied methods used by public schools to address trauma and trauma recovery, it is unclear what strategies are being

used in schools across the nation, how they relate to school shootings, and how they are perceived by school leaders (e.g., teachers, guidance counselors, and administrators).

Method

I posed the following research question: What programming and resources are U.S. public schools providing or providing access to for students, public school teachers, guidance counselors, and administrators related to school shootings and/or surviving school shootings? This study functioned as the second of a two-part overarching exploration of public school responses to the trauma of school shootings. The first part of the overarching research included qualitative interviews with teachers, guidance counselors, and administrators who had experiences with school shootings. Findings from the qualitative study provided insight into the development of survey questions in the current study. Related objectives for this study included differences in strategies used among public schools to reduce trauma symptoms in adolescents and school employees, how many schools have a crisis and/or trauma plan that addresses issues related to school shootings, and school leader attitudes toward public school trauma intervention used in the event of school shootings. A cross-sectional design approach was used to develop a questionnaire to emphasize the description and exploration of trauma response services and resources currently offered in public schools and attitudes towards these services. Prior to conducting this study, I obtained Institutional Review Board approval through Baylor University. I obtained consent from each participant prior to their completion of the online survey, then analyzed and compiled findings to disseminate among professionals interested in trauma response to public-school shootings.

Participants

The sampling frame included 360,000 public school teachers, 88,000 administrators, and 58,804 guidance counselors, all of which were obtained from a national marketing email listserv. Upon obtaining contact lists in the sampling frame, 500 individuals from each list of eligible public-school employees (i.e., public school teachers, public school administrators, and public-school guidance counselors) were randomly selected for a total of 1,500 individuals. The rationale for this sampling frame is related to Rubin and Babbie's (2014) estimation of approximately 50% response rate for online surveys and accounts for a sample size large enough (i.e., 750 participants) to provide national estimates for public schools in the U.S. Participants were randomly selected via random selection tool within survey software system (i.e., Qualtrics). Initial invitations that included recruitment contact and a link to participate in the survey were sent out to all teachers, administrators, and guidance counselors in the sample. Multiple contacts included the initial formal invitation email, an initial follow-up reminder email 3 days after the initial formal invitation, subsequent follow-up reminder emails at two weeks, four weeks, six weeks, eight weeks and nine weeks after the initial follow up which included replacement names from prior nonresponse emails, and a final thank you letter for those that participated, with a reminder for those who did not participate to do so. Additionally, subsequent contacts included a link to assess for nonresponse bias. All survey responses were anonymous and no identifying information was obtained.

Assessment and Procedure

The study used an anonymous, online survey to obtain information from participants. Neither I nor research team was able to identify where any completed questionnaire came from, however, informed consent was connected to the individual's

survey to indicate which surveys will need to be pulled out if the participant decided to withdraw from the study. Potential participants were randomly selected from the sampling frame to receive a formal, in-depth invitation letter via their school-related email accounts to complete the anonymous online survey via a link. Participants who voluntarily agreed to complete the survey clicked the survey link in their formal invitation which led to the overview of the study describing the study in detail, defining pertinent terms related to the study that was used throughout the survey, and thanking participants for their participation. Participants also reviewed an informed consent prior to completing the survey including potential risks and benefits of the study, anonymity, voluntary participation, protection of human rights, and explanation of their role in the study. Advancement to the next section and completion of the survey indicated consent. Three days after the formal invitation, a follow-up email was sent to participants encouraging those that had not participated yet to do so. Following an additional two weeks, another email was sent of a similar nature thanking participants who completed their surveys and encouraging others to participate if they had not. Additional emails were sent at the six week, eight week and nine-week marks for follow up and reminders to complete the survey. Data was collected on the percentage of responses during each wave of reminders. Those whose emails were not working during each wave of contacts were replaced with another name randomly selected from the original sampling frame. To address nonresponse rate bias, there was a link provided for those who did not respond to the formal invitation after two emails to assess why survey responses were not provided (See Appendix C).

The survey (i.e., the Public-School Trauma Support Assessment) included 25 Likert scale items and 1 open-ended item that was informed by data obtained during the qualitative research phase of this study, a five-item PTSD scale for those who had experienced school shootings only, and a demographic section (See Appendix B). Some items included examining the difference in strategies used among public schools in response to school-based traumatic events and perceived barriers among employees toward implementing a public-school intervention for school-based trauma were from the School Survey on Crime and Safety for Principals (National Center for Education Statistics, 2016). This survey's use in the study was based on its use in previous national surveys of public schools by the U.S. Department of Education to measure similar concepts like school violence, although it focuses on the broader topics of crime and safety and does not address trauma support in public schools. The most recent survey sample in 2016 included approximately 3,553 public elementary, middle, and high schools nationwide (Jackson et al., 2018). Specifically, I used eight questions from this survey on topics related to school mental health services, school practices and programs, staff training and practices, and school security staff. Sixteen questions on topics related to parent and community involvement at school, crime incidents, disciplinary problems and actions, and school characteristics from the School Survey on Crime and Safety for Principals were excluded due to being outside of the scope of this study. An additional 18 questions were added to the survey in order to assess for trauma support services, public school employee perceptions of such services, and differences among strategies that are reported in the literature as being used in public schools to address trauma in students and employees. Participants would, then, identify strategies for public school efforts toward

improvement of trauma response to school shootings via questions provided within the survey. The open-ended question was included in the survey for respondents to discuss various strategies used by their schools to reduce trauma symptoms in individuals. I also requested basic demographic information including age, gender, ethnicity, job title, years of employment in public schools, years of employment in current school district, and the number of public schools employed. Participants were expected to complete the survey in approximately 10-15 minutes. The data collection process lasted for two and a half months.

Data Analysis

I calculated the effect size using Cohen's d to determine the minimum sample size needed for the study. Results indicated 329 respondents were needed to exceed Cohen's (1988) convention for a large effect ($d = .80$). Cronbach's alpha calculation for internal consistency of the survey indicated high reliability ($\alpha = .88$). Expert panel results determined that survey items captured the intended concept of trauma support in schools. I used SPSS software for analysis of survey responses. I assessed the reliability of the Public-School Trauma Support Assessment using Cronbach's alpha and used an expert panel to assess content and face validity. Basic descriptive analyses (e.g., frequencies, central tendency) provided the percentage of public schools responding to the survey that have a trauma/crisis plan in place. I used additional chi-square testing to compare the attitudes toward public school intervention in the event of school shootings based on respondent's position at their school (e.g. teacher, guidance counselor, and administrator). Additionally, basic descriptive analyses and axial coding helped to identify themes and better understand differences in public schools' strategies to reduce

trauma symptoms in students and employees for the open-ended survey item. Alpha was set to 0.05. I reviewed data for the standard assumptions of each test Prior to conducting any analyses. I secured all documents and data related to the study using a double-locked system by storing data on a password-protected computer in a locked file cabinet accessible only to me and will store the data securely for a minimum period of three years after data collection.

Results

The total sample included 500 public school teachers, 500 guidance counselors, and 500 administrators. The survey response rate was 27.73%. Survey respondents consisted of 416 (303 identified as women, 72 identified as men, 1 identified gender as not important, and 40 gender nonresponses. Roles included 18 respondents identifying as school administrators, 255 as teachers, 90 as guidance counselors, and 53 not identifying their role. The age of participants ranged from 23 to 67 years old ($M = 38.92$, mode = 29). The average length of employment in public schools for participants was 13.14 years (range: 1 year to 53 years of experience; $Mdn = 11$). 96.8% of respondents identified themselves as full-time public-school employees, 2.8% identified as part-time and .3% did not identify employment status. Fifty-nine percent of survey respondents identified as Caucasian, 24.8% identified as African American, 1.7% identified as other races (e.g., Asian, Middle Eastern), 8.2% identified as Hispanic/Latino, and 5.5% of respondents did not identify a race. Survey respondents represented four regions of the United States: Northeast, Midwest, West, and South. There were 132 respondents from the south region, 85 from the west region, 74 from the Northeast region, 84 from the Midwest region and 41 nonresponses. Seventy-three percent of survey respondents identified as women and

17.3% as male. An additional 12 respondents completed the separate non-response survey in lieu of the study survey citing lack of time and concern for the study topic as primary reasons for not completing the study survey.

Trauma and/or Crisis Intervention Plans

As shown in Table 4.1, across all survey respondents, 47.4% percent of respondents agreed or strongly agreed that their school possessed a written trauma and/or crisis plan that describes procedures to be performed in the event of a school shooting. However, only 16.9% were able to agree or strongly agree that their school had a plan that describes trauma intervention strategies to be used in the event of a school shooting. Additionally, 52.5% of respondents were either unsure if their school had a written plan to address school shootings or disagreed altogether that such a plan existed. Eighty-three percent were unsure or disagreed that their school's plan included trauma intervention strategies that can be used following a school shooting.

Table 4.1

Trauma Intervention Plans

Level of Agreement	Strongly Disagree	Disagree	Not Sure/Neutral	Agree	Strongly Agree
Item 4					
My school has a written plan that describes procedures to be performed in the event of a school shooting.	1%	36.6%	14.9%	31%	16.4%
Item 5					
My school has a plan that describes trauma intervention strategies that can be used following a school shooting.	3.4%	54.4%	25.2%	10.3%	6.6%

Additionally, 61% of school administrator respondents confirmed their schools have trauma and/or crisis intervention plans in comparison to 44% of teacher respondents and 48% of guidance counselor respondents suggesting that administrators may be more likely to be knowledgeable about such plans in comparison to other respondents (i.e., teachers and guidance counselors).

Trauma Intervention Strategies in Public Schools

Differences in strategies used among public schools to reduce symptoms of trauma in the event of a school shooting were determined using an open-ended survey question which prompted respondents to identify strategies and/or methods that their school uses to address trauma (i.e., “Please share any strategies that your schools uses that may reduce trauma symptoms in students or teachers in the event of a school shooting”). Additionally, other survey questions addressed the use of strategies commonly viewed as beneficial for trauma intervention used in schools such as the presence of a mental health counselor and a police officer on campus. Also, 86.1% of respondents agreed that their school possesses a mental health counselor on campus and 93.6% agreed that there is a police officer on their campus.

There were also some themes that emerged from the open-ended survey data regarding trauma intervention. Respondents identified trauma methods within two main themes: prevention and intervention strategies that are used in their schools. Common prevention strategies included peer mentoring and anti-bullying policies and programs. Common intervention strategies included mental health services and specific trauma-informed strategies such as restorative circles. However, it was noted that anti-bullying policies and mental health services appeared to be the most popular strategies mentioned

among respondents. Peer mentoring and restorative circles, although mentioned often, were not mentioned as often in comparison to the aforementioned.

Attitudes toward Public School Trauma Intervention following School Shootings

I assessed the difference in attitudes toward public school trauma intervention related to school shootings among teachers, administrators and guidance counselors via level of agreement based on the following three survey items: 1.) My school uses effective methods to reduce trauma symptoms in staff members following a school shooting, 2.) My school uses effective methods to reduce trauma symptoms in students following a school shooting, and 3.) My school provides enough trauma intervention after a school shooting. Many survey respondents across each position type reported neutral/unsure attitudes toward public school intervention following school shootings (See Figure 4.1). In addition, many survey respondents were unsure if their school does enough intervention related to school shootings.

Figure 4.1. Attitudes toward Public School Intervention

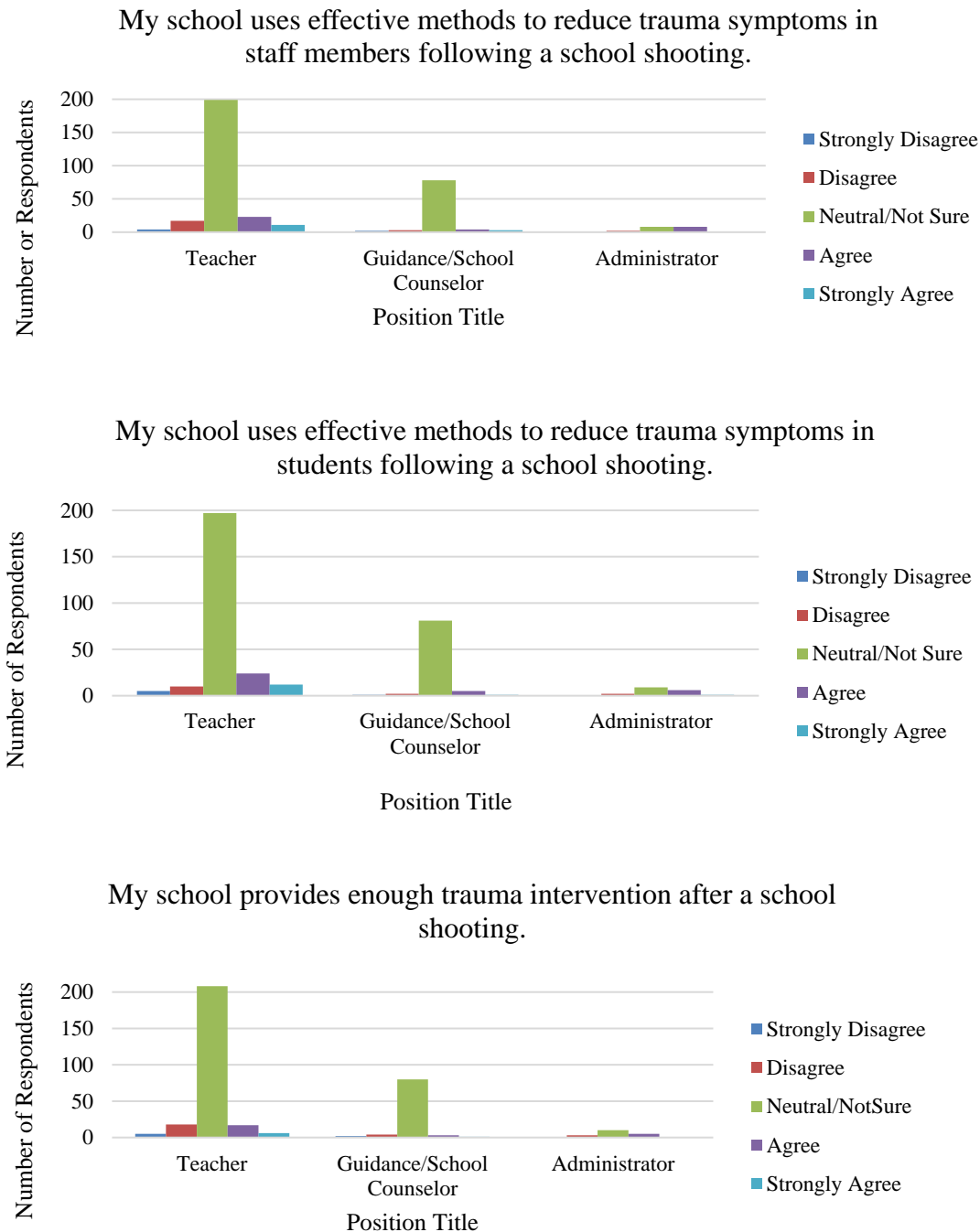


Figure 4.1. Respondent graphs indicating responses across every position type showed a majority neutral/not sure responses to questions regarding the effectiveness and

sufficiency of trauma intervention strategies used in schools for staff members and students.

A chi-square test of independence was conducted to compare the responses toward public-school trauma intervention strategies based on the respondent's position at their school. The perception of trauma strategies in public schools were varied among respondents. There was a significant association between respondents' position at their school and level of agreement regarding the effectiveness of trauma intervention in schools for staff members, $\chi^2 (12, N=375) = 38.39, p = .000$). There was also a significant association between respondents' position at their school and level of agreement regarding the effectiveness of trauma intervention used in schools for students, $\chi^2 (12, N=375) = 28.48, p = .005$). Finally, there was a significant association between respondents' position at their school and level of agreement regarding if their school provides enough trauma intervention following a school shooting $\chi^2 (12, N=375) = 24.85, p = .016$). Specifically, findings indicated that a majority of respondents were unsure if their schools provided effective methods to reduce trauma symptoms in staff members and students.

There was also determined to be a correlation of survey items related to trauma plans and the effectiveness of trauma intervention strategies in schools. Specifically, positive responses to survey items about schools having a written plan to address trauma and school shootings were more likely to be associated with positive responses to items related to the effectiveness of their school's trauma strategies, $r (373) = .520, p < .01$. Additionally, respondents who confirmed their school used effective methods of trauma intervention in students and staff members were also more likely to select positive

responses to the survey question related to preparedness to manage trauma in a student a following a school shooting, $r(373) = .41, p < .01$.

Discussion

The study findings reported outcomes important for school success in preparing to respond to trauma, especially trauma related to school shootings. While there is a plethora of literature available related to public-school shootings, there is limited information on survivor needs for trauma intervention afterward and the public school's role in this. As the prevalence of complex trauma in childhood increase as well as individual incidents of school shootings, it would be logical and beneficial for public schools to begin strongly considering ways to address trauma in schools.

This study focused on the ways in which public schools currently address trauma on campus and school leaders' (e.g., guidance counselors, teachers, and administrators) perceptions of these methods. The magnitude of the effect was relatively large, and several outcomes offered insight for public schools and school districts to use in future planning for trauma intervention on campus. The overall findings suggest that public schools across the nation use a range of strategies to address trauma on campus. Specifically, respondents consistently reported a lack of and/or unawareness of written trauma and/or crisis intervention plans in schools. However, many respondents also reported the presence of an on-site mental health counselor. This could suggest many things including, but not limited to, schools perceiving mental health services to be equivalent and/or superior to trauma and/or crisis intervention plans in schools, school employees being more knowledgeable or aware of school mental health services than school trauma plans, or more barriers associated with having a trauma and/or crisis plan

versus a mental health counselor. Additionally, respondents appeared to be more certain of services that students had access to or would have access to in the event of a school shooting than they were about services for themselves. Overall, I observed many trends and correlations in the survey respondent data that could provide invaluable information related to the ways in which public schools currently address trauma and potential areas of improvement.

Trauma and/or Crisis Intervention Plans

The presence and/or knowledge of a written plan to address school shootings was shown to be a large indicator in a respondent's perception of a school's preparedness for trauma or school shootings. This factor was also a large indicator in the respondent's individual predicted feelings of self-efficacy and preparedness to help manage student trauma response following a school shooting. This suggests that awareness of a written, formalized plan improves public school employee confidence in the school's ability to respond to school shootings appropriately. However, in many cases, despite some respondents confirming the presence of a written plan related to school shootings, many of these respondents were either unsure or reported that this plan did not include any specific trauma interventions and/or strategies that should be used following a shooting to address traumatic responses. This pattern of findings was aligned with the predicted direction for all responses suggesting that many schools do not possess a written plan related to procedures following a school shooting and those that do often lack emphasis on trauma intervention. Findings also appeared to lack agreement with previous literature which posits most public schools (approximately 95%) have crisis plans (U.S. Government Accountability Office, 2007; Openshaw, 2011). This suggests that the

emphasis survey questions placed on school shootings and trauma intervention may have contributed to this difference and perhaps identifies a gap in existing public-school crisis plans.

Trauma Intervention Strategies in Public Schools

Many survey respondents mentioned trauma intervention strategies including peer mentoring programs, anti-bullying policies and programs, and trauma-informed practices such as restorative circles. This aligns with current trauma literature which states that all of these interventions are beneficial in some way to schools for prevention and intervention related to school shootings (Dauber et al., 2015; Gelkopf & Berger, 2009; Mendelson, Tandon, O'Brennan, Leaf, & Ialango, 2015; Yoder, 2008). Also, mental health services and access to a police officer on the school's campus was a common intervention identified by survey respondents. Research indicates that the presence of a school-based mental health counselor improves school climate and other positive outcomes for students, such as school safety and lower rates of suspension and other disciplinary incidents (Cleaveland & Sink, 2018; Hernandez & Seem, 2004; Lapan, Gysbers, Sun, 1997). However, research suggests the opposite for the presence of police officers in schools. Specifically, the literature suggests that having police in schools has not resulted in safer schools and can result in an increase in student referrals to police and student arrests for low-level incidents, particularly with students of color (Kupchik, 2019; Na & Gottfredson, 2011). Thus, the presence of both of these professions on a school's campus could have a significant effect on the prevention of traumatic events and a reduction in trauma symptoms related to traumatic events.

Overall results aligned with previous literature which states that more schools are focusing on the use of trauma-informed strategies (Thomas et al., 2019). However, there was little mention of assessment and/or screening used in schools to identify students in need of more intensive supports which literature suggests is a crucial part of trauma intervention (Lai et al., 2018; Reinbergs & Fefer, 2018; Wisconsin Department of Public Instruction, 2018) and psychological first aid training for school employees which can be complementary to other trauma-informed programs, is designed to be used by anyone after crisis situations occur and supported by the National Child Traumatic Stress Network and the National Center for PTSD (Brymer et al., 2006; Reinbergs & Fefer, 2018). Thus, findings suggest a need for improved access to and knowledge of trauma intervention resources. This gap raises concerns about the implications of the lack of identified services in school crisis plans, support in the aftermath of a school shooting and consideration of faculty and staff members who may also be experiencing trauma and how they might manage such responses while also support students.

Attitudes toward Public School Intervention following School Shootings

Survey respondents were also overwhelmingly unsure of the effectiveness of trauma strategies used in public schools. Findings in this area suggest that school employees often have an unclear perception of trauma strategies used in public schools either due to the lack of strategies used in schools, lack of knowledge of what these strategies are, could be, and how to apply them or inability to determine the effectiveness of said trauma strategies. However, when discussing interventions following school shootings, survey respondents appeared to be clear on the services that would be provided to students in the event of a school shooting. However, they were less clear on the

services that would be provided to them in the event of a school shooting. For example, many respondents acknowledged that they were unsure if mental health services would be provided to them in the event of a school shooting and subsequently acknowledged that their school had not made them aware of where they could potentially find resources or access to resources following a school shooting. This suggests an implicit bias and assimilation to the idea that students and their trauma response are the primary concern following a school shooting. However, research suggests that public school employees such as teachers, guidance counselors, and administrators are also vulnerable to experiencing negative effects following school shootings (Ting, Sanders, & Smith, 2002). Thus, failure to consider faculty and staff trauma and how to manage this is an important factor following school shootings. Implications could include disgruntled school employees, negative attitudes toward the school as an organization, increased risk of mental health-related concerns, decreased work satisfaction, increased attrition rates, decreased retention rates, and poor relationships with students.

Implications

The National Task Force on Children Exposed to Violence called the cost of children's trauma exposure "staggering" and suggested delivery of evidence-based prevention and early intervention services for trauma-exposed youth through systems that serve them (Listenbee et al., 2012). Schools are a logical setting for prevention and intervention services. Many schools attempt to address these issues with school-based mental health services, however, research indicates that these services tend to target aggressive and disruptive behaviors rather than internalized issues such as trauma symptoms (Greenberg, Domitrovich, & Bumbarger, 2001; Hahn et al., 2007; Mendelson

et al., 2015; Wilson & Lipsey, 2007). Changes within the public school response to trauma will require diligent and intentional efforts on many levels within the school system. Based on survey responses in this study, public schools would benefit from addressing trauma intervention across micro, mezzo, and macro levels to establish a more comprehensive approach to trauma response. For example, interventions at the micro level may include a critical evaluation of trauma assessment tools used by schools to determine whether the tool reflects the principles of trauma-informed care and are supported by evidence or the implementation of the use of such a tool if one is not already being used. Trauma-informed care and counseling would also be included in micro-level interventions. However, research is still needed on best practices for school shooting trauma. Interventions at the mezzo level might include facilitating separate support groups for students and school employees to build safety, collaboration, empowerment, and systems of support (Openshaw, 2011). Finally, interventions at the macro level might include school representatives participating in a trauma or crisis task force in the local community to engage in response efforts and/or advocating with state legislators for access to resources to address school trauma response and its impact on schools and their surrounding communities. Furthermore, trauma-informed models in schools will need to address the widely varied trauma intervention responses among public schools. Trauma literature identifies a variety of trauma-informed models appropriate for use in schools, however, future research should address the potential benefits of having district, state, or nation-wide recommendations or requirements for such models. Recommendations or requirements should be based on meta-analyses or research conducted with specific trauma-informed models in schools. Such models

should account for instances of shared traumatic experiences such as school shootings when public school employees would also need access to trauma intervention resources and services to address their own trauma rather than being a primary source of support to students. Models should also include practitioner support as research indicates that “intervention requiring implementation by teachers or other school employees are only sustainable when they are supported by administrators, acceptable to teachers, viewed as effective, are flexible and adaptable, and are feasible to implement with limited support/resources” (Han & Weiss, 2005; Reinbergs & Fefer, 2018, p. 254)

Other factors include the need for school-based training on psychological first-aid. Many survey respondents reported feeling unprepared by their schools to handle student trauma related to a school shooting. These results indicate a need for education and training on psychological first aid and de-escalation strategies in schools. Public school employees should possess knowledge in recognizing basic warning signs of trauma, understanding how to respond and knowing when and how to seek professional assistance (Openshaw, 2011). The National Child Traumatic Stress Network (NCTSN) offers resources for this type of need including a toolkit for teachers and educators available for download for free from their website. Additionally, psychological first aid efforts in schools should be led by school-based mental health professionals who can provide immediate crisis intervention and classroom support following a tragedy and identify longer-term needs for traumatized individuals. It would be beneficial if this role were filled by school-based mental health professionals within the community or neighboring schools rather than from the school where the shooting occurred as the mental health professional employed by this school may need services as well.

Recommendations for interventions in this area include individual strategies that are integrated into a larger crisis intervention response and supportive groups of individuals exposed to common trauma (Openshaw, 2011).

Limitations

This study raises many significant questions for future research. The practicalities of providing trauma training to staff such as grants to purchase materials and consultants to adapt resources to a particular school, the impact of using these resources and the resilience they build, the varying needs of students versus school employees following a school shooting, and the effectiveness of trauma-informed practices in school shooting scenarios are all areas for future research consideration. Additionally, this study does not include a comparison of psychometric properties of the aforementioned trauma tools and interventions, and thus, cannot contribute to the discussion of the superiority of any particular measures. Discrepancies in ratings of the effectiveness of trauma intervention strategies across respondents (e.g., administrators, guidance counselors, and teachers) were common. It is unclear, however, how to interpret the lack of group differences in some self-reported outcomes in this study. It is possible that this pattern of findings reflects limitations in the assessment measures, in respondent comprehension, or in respondent willingness to disclose information regarding their school. The methodological limitations of this study may include a small sample size in comparison to the sample frame and limitations to the randomization process. However, I noted an increase in responses following each reminder email suggesting that a longer data collection period with additional reminder emails would have likely resulted in a larger sample size. The demographics of the sample also indicated disproportionate

representations of gender and race in survey respondents as well as the inherent roles and regions of survey respondents potentially having significant differences in their experiences and access to trauma resources and services. Thus, nonresponse rates could have been affected by several variables including the roles of the respondent in the school, the region the respondent was in, the structure of the respondent's school day, etc. Unfortunately, the nature of the study offered very little information about those who did not respond or complete the nonresponse survey making determining the extent to which non-respondents are different from respondents difficult. Also, schools may be reluctant to invest time and money in trauma intervention for the aftermath of school shootings versus prevention efforts. Despite these limitations, the study suggests that further research in this area is warranted.

Conclusion

Trauma intervention in public schools is an issue that needs continued attention in the U.S. As reports of school shootings and instances of childhood trauma continue to increase, there is more need than ever to develop and implement best practice trauma interventions in schools including building resilience through trauma-informed care. The findings of this study offer insight from public school leaders on how schools are currently addressing trauma in schools including significant gaps in both interventions and research for effectiveness. One glaring topic is the impact of school shooting trauma on staff and faculty who are then providers of care and comfort while managing their own responses even as all of the school requirements continue. This information provides baseline data on public school trauma awareness, trauma intervention, and, in some cases, perception of intervention effectiveness. This knowledge can assist in identifying trends

related to addressing trauma in public schools, particularly following school shootings, and determining what needs to be done in order to create an effective and perhaps systematic response to trauma-related to school shootings in public schools. Findings indicate that the lack of trauma response and/or intervention plans that address needs following school shootings in public schools further perpetuates unpreparedness for traumatic events that may occur on or near campus. These challenges exacerbate existing inadequate knowledge of education professionals related to the effects of trauma and how to appropriately respond when it has occurred. Further, the lack of knowledge and/or communication of trauma response and/or intervention plans yields similar consequences.

Future research warrants additional focus on the relationship between the presence of a trauma intervention plan in schools and perceived preparedness for traumatic events in schools, effectiveness of various trauma intervention responses, and addressing trauma in public school employees following shared traumatic experiences such as school shootings via use of trauma-informed approaches to promote resilience capacity and a plan for managing the aftermath of a school shooting or other school trauma. Additionally, future research should address how trauma-informed care resilience impacts the recovery process after a school trauma including a school shooting as well as disadvantages or advantages for school faculty and staff administering trauma-informed practices for instances for shared traumatic experiences like school shootings. The feasibility of such practices would also need to be assessed as public schools across the nation have varying levels of affluence and access to resources and services. Research in these areas would assist in equipping public schools across the nation in supporting both students and employees following school shootings. Additionally, the above-mentioned

research could be easily applied to the issue of addressing trauma that has not occurred on the school's campus as trauma literature indicates that childhood trauma is on a rapid incline and these issues affect school performance (Meichenbaum, 2012; McLaughlin et al., 2012; Strom, Schultz, Wentzel-Larsen, & Dyb, 2016; Vieselmeyer, Holguin & Mezulis, 2017).

Overall, the history of public school responses to crises suggests that there is a capacity for growth in the area of trauma response. Education professionals have demonstrated commitment to improving trauma response in schools that involve a balance among prevention, intervention, and reaction (Linchtenstein, Schonfeld & Kline, 1994). In fact, school professionals may already be laying the groundwork for trauma-informed environments and improved crisis response by promoting effective coping to students through formal instruction in life skills and building rapport and trust with students while modeling appropriate ways of expressing feelings. Many of these tactics would enhance the next steps in the area of trauma response to school shootings.

References

- Alexander, B. & Harris, H. (2019). *Public school preparedness for school shootings: A phenomenological overview of school leader perspectives*. Manuscript submitted for publication.
- Brymer, M., Jacobs, A., Layne, C., Pynoos, R., Ruzek, J., Steinberg, A.,... Watson, P. (2006). *Psychological First Aid: Field operations guide* (2nd ed.). Los Angeles, CA: National Child Traumatic Stress Network and National Center for PTSD.
- Cavanaugh, B. (2016). Trauma-informed classrooms and schools. *Beyond Behavior*, 25, p. 41-46. doi: 10.1177/107429561602500206
- Center for Disease Control and Prevention. (2016). *Understanding school violence*. National Center for Injury Prevention and Control, Division of Violence Prevention. Retrieved from <https://www.cdc.gov/violenceprevention/pdf/schoolviolence-factsheet.pdf>
- Cleveland, R. E. & Sink, C. A. (2018). Student happiness, school climate, and school improvement plans: Implications for school counseling practice. *Professional School Counseling*, 21, 1-10.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Dauber, S., Lotsos, K., & Pulido, M. (2015). Treatment of complex trauma on the front lines: A preliminary look at child outcomes in an agency sample. *Child & Adolescent Social Work Journal*, 32, 529-543. doi: 10.1007/s10560-015-0393-5

- Evans, S. W., Stephan, S. H., & Sugai, G. (2014). Advancing research in school mental health: Introduction of a special issue on key issues in research. *School Mental Health, 6*, 63-67.
- Gelkopf, M. & Berger, R. (2009). A school-based, teacher-mediated prevention program (ERASE-Stress) for reducing terror-related traumatic reactions in Israeli youth: A quasi-randomized controlled trial. *Journal of Child Psychology and Psychiatry, 50*, 962-971. doi: 10.1111/j.1469-7610.2008.02021.x
- Grabow, C. & Rose, L. (2018). The U.S. has had 57 times as many school shootings as the other major industrialized nations combined. *CNN*. Retrieved from <https://www.cnn.com/2018/05/21/us/school-shooting-us-versus-world-trnd/index.html>
- Greenberg, M. T., Domitrovich, C., & Bumbarger, B. (2001). The prevention of mental disorders in school aged-children: Current state of the field. *Prevention & Treatment, 4*, 1-62.
- Hahn, R., Fuqua-Whitley, D., Wethington, H., Lowy, J., Crosby, A., Fullilove, M.,...Dahlberg, L. (2007). Effectiveness of universal school-based programs to prevent violent and aggressive behavior: A systematic review. *American Journal of Preventive Medicine, 33*, S114-S129. doi: 10.1016/j.amepre.2007.04.012
- Han, S. S., & Weiss, B. (2005). Sustainability of teacher implementation of school-based mental health programs. *Journal of Abnormal Child Psychology, 33*, 665-679.
- Hernandez, T. J. & Seem, S. R. (2004). A safe school climate: A systematic approach and the school counselor. *Professional School Counseling, 7*, 256-262.

- Jackson, M., Diliberti, M., Kemp, J., Hummel, S., Cox, C., Gbondo-Tugbawa, K.,...Hansen, R. (2018). *2015-2016 School Survey on Crime and Safety (SSOCS): Public-Use Data File User's Manual* (NCES 2018-107). U.S. Department of Education, National Center for Education Statistics. Washington, DC. Retrieved from <http://nces.ed.gov/pubsearch>
- Jamieson, A. (2019, February 23). This is how America tries to protect students from mass shooters. *BuzzFeed*. Retrieved from <https://www.buzzfeednews.com/article/amberjamieson/america-schools-students-defense-guns-shooters-parkland>
- Kupchik, A. (2019, March 11). The impact of school policing. Retrieved from <https://www.endzerotolerance.org/single-post/2019/03/11/Research-on-the-Impact-of-School-Policing>
- Lai, B. S., Osborne, M. C., Lee, N., Self-Brown, S., Esnard, A-M., Kelley, M. L. (2018). Trauma-informed schools: Child disaster exposure, community violence, and somatic symptoms. *Journal of Affective Disorders*, 238, 586-592. doi: 10.1016/j.jad.2018.05.062
- Lapan, R. T., Gysbers, N. C., & Sun, Y. (1997). The impact of more fully implemented guidance programs on the school experiences of high school students: A statewide evaluation study. *Journal of Counseling and Development*, 75, 292-302.
- Lichtenstein, R., Schonfeld, D. J., & Kline, M. (1994). School crisis response: Expecting the unexpected. *Educational Leadership*, 52, 79-83.

- Listenbee, R. L., Torre, J., Boyle, G. S. J., Cooper, S. W., Deer, S., Durfee, D. T., & Taguba, A. (2012). *Report of the attorney general's national task force on children exposed to violence*. U. S. Department of Justice: Washington, DC.
- Love, R. A. & Cobb, N. (2012). Developing schools' capacities to respond to community crisis: The Tennessee initiative. *Journal of Child and Adolescent Psychiatric Nursing*, 25, 158-163. doi: 10.1111/j.1744-6171.2012.00339.x
- Martin, S. L., Ashley, O. S., White, L., Axelson, S., Clark, M., & Burrus, B. (2017). Incorporating trauma-informed care into school-based programs. *Journal of School Health*, 87, 958-967. doi: 10.1111/josh.12568
- McConnico, N., Boynton-Jarrett, R., Bailey, C., & Nandi, M. (2016). A framework for trauma-sensitive schools: Infusing trauma-informed practices into early childhood education systems. *Zero to Three*, 35, 36-44.
- McLaughlin, K. A., Green, J. G., Gruber, M. J., Sampson, N. A., Zaslavsky, A. M., & Kessler, R. C. (2012). Childhood adversities and first onset of psychiatric disorders in a national sample of US adolescents. *Archives of General Psychiatry*, 69, 1151-1160.
- Meichenbaum, D. (2012). *Roadmap to resilience: A guide for military, trauma victims and their families*. Waterloo, ON, Canada: Institute Press.
- Mendelson, T., Tandon, S. D., O'Brennan, L., Leaf, P. J., & Ialongo, N. S. (2015). Moving prevention into schools: The impact of a trauma-informed school-based intervention. *Journal of Adolescence*, 43, 142-147. doi: 10.1016/j.adolescence.2015.05.017

- Na, C. & Gottfredson, D. C. (2011). Police officers in schools: Effects on school crime and the processing of offending behaviors, *Justice Quarterly*.
- Nader, K. & Muni, P. (2002). Individual crisis intervention. In S. E. Brock, P. J. Lazarus, & S. R. Jimerson (Eds.), *Best practices in school crisis prevention and intervention* (pp. 405-428). Bethesda, MD: National Association of School Psychologists.
- National Center for Education Statistics (2016). Schools and Staffing Survey (SASS). Retrieved from <https://nces.ed.gov/surveys/sass/>
- National Center for Safe Supportive Learning Environments. (2019). *Roles*. Retrieved from <https://safesupportivelearning.ed.gov/training-technical-assistance/roles/schooldistrict-administrators>
- National Center for Trauma-Informed Care (NCTIC). (2015). *Trauma-informed approach and trauma-specific interventions*. Rockville, MD: Substance Abuse and Mental Health Services Administration. Retrieved from: <http://www.samhsa.gov/nctic/trauma-interventions>.
- National Child Traumatic Stress Network. (2019). Creating trauma-informed systems. Retrieved from <https://www.nctsn.org/trauma-informed-care/creating-trauma-informed-systems>
- National Child Traumatic Stress Network, Schools Committee. (2017). *Creating, supporting, and sustaining trauma-informed schools: A system framework*. Los Angeles, CA, and Durham, NC: National Center for Child Traumatic Stress.

- National Institute of Mental Health. (2001). Helping children and adolescents cope with violence and disasters. (NIH publication, no. 01-3519). Author. Retrieved from <http://www.nimh.nih.gov/health/publications/helping-children-and-adolescents-cope-with-violence-and-disasters-partents/index.shtml>
- Openshaw, L. L. (2011). School-based support groups for traumatized students. *School Psychology International*, 32, 163-178. doi: 10.1177/0143034311400830
- Reinbergs, E. J. & Fefer, S. A. (2018). Addressing trauma in schools: Multi-tiered service delivery options for practitioners. *Psychology in Schools*, 55, 250-263.
- Rubin, A. & Babbie, E. R. (2014). Research methods for social work (8th ed). Belmont: Brooks/Cole Publishing
- Saltzman, W. R., Pynoos, R. S., Layne, C. M., Steinberg, A. M., & Aisenberg, E. (2001). Trauma- and grief focused intervention for adolescents exposed to community violence: Results of a school-based screening and group treatment protocol. *Group Dynamics: Theory, Research, and Practice*, 5, 291-303.
- Saltzman, W. R., Pynoos, R. S., Layne, C. M., Steinberg, A. M., & Aisenberg, E. (2003). School-based trauma and grief intervention for adolescents. *Prevention Researcher*, 10(2), 8-11.
- Strom, I. F., Schultz, J. H., Wentzel-Larsen, T. & Dyb, G. (2016). School performance after experience trauma: A longitudinal study of school functioning in survivors of the Utoya shootings in 2011. *European Journal of Psychotraumatology*, 7, 1-10. doi: 10.3402/ejpt.v731359

- Thomas, M. S., Crosby, S. & Vanderhaar, J. (2019). Trauma-Informed practices in schools across two decades: An interdisciplinary review of research. *Review of Research in Education*, 43, 422-452. doi: 10.3102/0091732X18821123
- Ting, L., Sanders, S., & Smith, P. L. (2002). The teachers' reactions to school violence scale: Psychometric properties and scale development. *Educational and Psychological Measurement*, 62, 1006-1019. doi: 10.1177/0013164402238087
- U.S. Department of Education. (2006). *Lessons learned from school crisis and emergencies*. (The Emergency Response and Crisis Management Technical Assistance Center funded through the USDOE's Office of Safe and Drug-Free Schools), 1(2). Retrieved from http://rem.s.ed.gov/docs/CoordinatedResponseToMultipleDeaths_1102.pdf
- U.S. Government Accountability Office. (2007, June). *Emergency management: Most school districts have developed emergency management plans, but would benefit from additional federal guidance*. Washington, DC.: Author. (GAO-07-609). Retrieved from <http://www.gao.gov/new.items/d07609.pdf>
- Vieselmeier, J., Holguin, J., & Mezulis, A. (2017). The role of resilience and gratitude in posttraumatic stress and growth following a campus shooting. *Psychological Trauma: Theory, Research, Practice, and Policy*, 9, 62-69. doi: 10.377/tra0000149
- Wilson, S., J., & Lipsey, M. W. (2007). School-based interventions for aggressive and disruptive behavior: update of a meta-analysis. *American Journal of Preventive Medicine*, 33, S130-S143.
- Wisconsin Department of Public Instruction. (2018). *Trauma sensitive schools learning modules*. Retrieved from <https://dpi.wi.gov/sspw/mental-health/trauma/modules>

Yoder, M. (2008). Helping in the wake of disaster: A graduate student's perspective in the aftermath of the VT tragedy. *Traumatology*, *14*, 25-31. doi: 10.1177/1534765607309941

CHAPTER FOUR

Logotherapy and the Aftermath of Public-School Shootings

Abstract

Public school shootings in the U.S. have increased over the past few decades. Trauma-related to these events is leading to many conversations concerning ways to manage its effects in the aftermath of school shootings. Current research is unclear on how public schools can effectively address the trauma and trauma-related symptomology from public school shootings. Meaning-making as a resource for trauma intervention could be an important concept for addressing the effects of trauma and aiding traumatized individuals in moving forward following a school shooting. Viktor Frankl's existential theory, logotherapy, and other current evidence-based trauma interventions are used to discuss the integration of trauma intervention and meaning-making. Additionally, its potential contribution to the discussion of U.S. public school shootings is explored. Implications for this discussion include benefits to survivors of school shootings and informing public-school administrators on the importance of addressing trauma in the aftermath of the event.

Keywords: school shootings, logotherapy, trauma, meaning, public schools, existential theory, intervention

Introduction

Challenges of public-school safety in the United States (U.S.) have increased and highlight the role of school authorities in eliminating violence in schools. The level of concern for school safety is the highest it has been since 1998 (Richmond, 2018). To address these concerns, state lawmakers, community stakeholders, parents, and even students are advocating for intervention like school safety upgrades and expanding counseling services (Richmond, 2018). Once considered the safest environment for youth, schools are now considerably less predictable. However, it is certain that students and school faculty have a right to feel safe in a place where they spend the majority of their days.

Literature Review

Public school shootings in the U.S. have made many individuals including students, school professionals, and family members alike, quite discouraged. Although the narrative has been frequently rewritten over the years, each time with new casualties, the fear and trauma look and sound eerily similar. These events highlight the importance of recognizing how school shootings affect the lives of those involved. Further, it amplifies the need to identify both the meaning of the event and the methods to address the trauma and trauma symptomology for survivors in schools.

Trauma in Youth

An estimated 65 million people, approximately 20% of the U.S. population, experience at least one traumatic event in their lifetime (Meichenbaum, 2012; Vieselmeier, Holguin & Mezulis, 2017). Trauma can come from direct exposure, witnessing or learning about a traumatic event, or through repeated exposure to distressing details (American Psychiatric Association [APA], 2013). Although difficult

for people of all ages, trauma can be particularly difficult for school-aged youth (ages 5 to 18) who experience these events during crucial times for brain development, impacting the development of healthy coping mechanisms (Cook, Chaplin, Sinha, Tebes, & Meyes, 2012). Trauma in youth can contribute to the development of psychiatric disorders such as depression, anxiety, externalizing behavior disorders (EBD), attention-deficit/hyperactivity disorder (ADHD) and post-traumatic stress disorder (PTSD) as well as lower functioning in adulthood (Wingo et al., 2010). Research suggests that trauma disorders like PTSD are linked to the diminished growth or shrinking of the left superior parietal lobule of the brain which is connected to mental health disorders, perhaps explaining some cases of comorbidities with disorders that occur following trauma (Bergland, 2013).

School shootings. Over the past few decades, the aftermath of school shootings in U.S. public schools has contributed to a large portion of the rising prevalence of trauma exposure in school-aged youth, particularly as there are increasing reports of school shootings in the U.S. (Barrett, 2014). Prominent school shootings in the past 20 years have included but are not limited to incidents at Columbine High School in 1999, Red Lake Senior High School in 2005, Sandy Hook Elementary in 2012, North Park Elementary in 2017, Marjory Stoneman Douglas High School in 2018 and Santa Fe High School in 2018 (Reuters, 2018). School shootings in which one or more individuals actively open fire with a gun toward students and other individuals on the school campus will be the primary focus for this discussion.

As America begins to address the epidemic of school shootings, social workers, school-based mental health professionals, community leaders, and congregations are

faced with the growing needs of survivors and/or persons impacted by school shootings. Many school shootings have resulted in a national outcry for resolution from parents, students, educators, and politicians. Some public schools have been slow to implement trauma response plans in the face of the increasing number of shootings on school campuses, while others have been forced to do so following tragedy on their own campuses (Jimerson, Brock, & Pletcher, 2005). Implications of traumatized youth and school staff indicate a need for intervention following school shootings in public schools.

Theoretical Basis for Trauma Intervention

Conceptualizing a traumatic event while working through the pain and suffering that often follows is significantly informed by Viktor Frankl's (1988) existential theory. Theoretical considerations for therapeutic intervention after a public-school shooting begin with an understanding of Frankl's work on meaning-making. During a traumatic event, one's framework for perception of the world can be compromised or lost which can lead to feelings of meaninglessness resulting in questions that reflect a search for meaning addressed by Frankl's theory and logotherapy (Frankl, 1986; Cann et al., 2011). According to logotherapy, the existential assumption that loss is inevitable or somehow unavoidable leads to the goal of finding meaning, a core principle in this theoretical framework (Frankl, 1986; Reiting, 2015). This foundation allows survivors from varying viewpoints of a traumatic incident to process and reach an understanding of their experience. The search for meaning following trauma begins with the concept of phenomenology, which Frankl defines as "an attempt to describe the way in which man understands himself, in which he interprets his own existence, far from preconceived patterns of interpretation and explanation" (Frankl, 1988, p. 7). Dimensional ontology

suggests that unique experiences of a phenomenon produce variable outcomes. In logotherapy, the goal is the search for meaning to aid one in moving past trauma-related distress. Frankl asserts that the search for meaning is structured as a human need that must be met (1988). It is the key to the discussion of resilience and trauma.

Phenomenology

Phenomenology highlights multiple perspectives that impact any single event or phenomenon (Seidman, 2012). One's experience of trauma is influenced by their vantage point or perception of the event while simultaneously sharing common themes with another's experience. Frankl's concept of dimensional ontology suggests that one phenomenon can result in different interpretations for various people further indicating that trauma is not identified based on its "noematic features" but on the basis of a situation's impact on an individual, a key feature in a phenomenological perspective of trauma (Gusich, 2012, p.506). One's response to trauma is also attributed to unique characteristics (e.g., resiliency skills, social impacts), not the mere occurrence of the trauma. Further, these elements of phenomenology lead to the conclusion that the events of one's past ultimately play a major role in response following a traumatic experience (Landwehr, 2017).

Transcendence

After a traumatic incident, one attempts to get a full understanding of the incident. Attempting to make sense of the event, starts with assembling an accurate picture of the incident including the survivor's beliefs about the incident (Landwehr, 2017). This may reduce the assumptions that may not be productive to alleviate symptoms of trauma. Finding meaning starts with transcendence which means "to intentionally direct oneself

towards values and meaning” (Reitinger, 2015). Frankl found it is beneficial to the healing process and plays a key role in the trauma discussion. The logotherapy “will to meaning” concept suggests that the primary human motivation is to find meaning and this can only be done by first reaching transcendence (Frankl, 1988; Reitinger, 2015). In other words, it is within the human capacity to strive for something that transcends self-interest and serves the greater good, especially after life-threatening events (Landwehr, 2017; Reitinger, 2015). According to logotherapy, a person cannot become a fully actualized, “whole” person without reaching transcendence which is noted by a shift in focus from self to others, a shift in values, and/or an increase in moral concern (Frank, 1986; Frankl, 1988). Transcendence can be achieved in many ways but is often achieved by sharing personal narratives and/or experiences offering a way for transformation after trauma to begin and offer an opportunity for individuals to identify symbols within a trauma paving the way towards meaning (Altmaier, 2013; Reitinger, 2015).

Frankl’s call for “survivor responsibility” in lieu of survivor’s guilt refers to the need for individuals to bear witness to one another and share their stories to find meaning (Frankl, 1988, p.52). His concept suggests that survivor’s guilt is not beneficial (Frankl, 1988). Instead, one should view trauma as a responsibility to share stories to identify the meaning in one’s life. Colin Goddard, a survivor of the Virginia Tech Shooting in 2007, who is now a senior policy advocate with Everytown for Gun Safety is a prime example. Goddard shares his personal experience of being shot during the incident on many news and social media platforms and notes that after his initial fear of returning to school he began to feel like he had a second chance and with this shift in view, he did better academically (Uffalussy, 2016). He states, “there was a horrible tragedy that happened on

that campus, but so much good can come from it if you're willing to see through it and find that good" (Uffalussy, 2016). Goddard shares his story of transcendence with others in an effort to find meaning in the suffering that he and his fellow students experienced.

Finding Meaning

Finding meaning is important in theory as well as in practice with traumatized individuals (Bang, 2009). Many existential concepts and therapeutic treatment modalities build on the foundation of the human desire to seek meaning (Bang, 2009). Viktor Frankl develops these thoughts in his concept of the *will to meaning*; in this, he suggests human beings are motivated by their intrinsic desire toward finding meaning and purpose in life and argues that meaning can be found during life's worst difficulties and traumas (Frankl, 1988; LeFevre, 1966). From Frankl's perspective, the search for meaning allows for entirely new possibilities that challenge individuals to look past the pathology and into meaning. This offers an opportunity for one to reassess how they respond to stressful situations and decide how to interpret what this means for past, present and future events (Tedeschi & Riffle, 2016). Through this lens, human beings are challenged to seek an understanding of themselves as well as the human condition as it relates to trauma. Thus, humans are by nature meaning-seeking and are motivated by the need to understand life and find significance in their own life. This process can result in positive changes and even a new worldview.

Moving past the trauma. To move past the traumatic experience and its negative effects, one must gain a better understanding of the journey to healing which can be a stumbling block for some. The crisis intervention process proves to be especially useful when addressing this dilemma. Particularly when moving through crisis-stage

intervention, debriefing is impactful on reducing trauma-related symptomology indicating an initial need for social support rather than a need for narrative intervention. Timing is crucial in this process as it should only be applied after the immediate shock of the traumatic incident has passed so as not to disrupt natural defenses (Stallard & Salter, 2003). This will aid the traumatized individual and any support persons in identifying the type of intervention that is warranted. The following time during crisis intervention marks readiness to reflect on the meaning of a traumatic event (Stallard & Salter, 2003) which should eventually lead to a state of resolution indicating the completion of processing and movement towards healing. The focus, however, remains on the time period during which much of the difficult trauma processing occurs and the main goal is resolving the trauma.

According to McKinnon (1984), the pathology of general stress is not its occurrence, but rather the stress' failure to be resolved leading to ongoing symptoms. The author describes trauma by comparing it to the action of a pendulum in which the two farthest-reaching positions of the pendulum in motion represent the process of working through trauma. One direction represents avoidance and numbness while the other direction represents intrusive remembering (McKinnon, 1984). However, it is when the pendulum comes to rest that the "traumatic event becomes assimilated and anxiety, numbness, and affective arousal abate" (McKinnon, 1984, p.126). Human nature suggests that it is natural for an individual to seek meaning in order to resolve such stress (Dezelic, 2014). Among the lived experiences of a school shooting, we can also find individual meaning or interpretation of the phenomenon. Thus, personal experience is often the stepping stone to finding meaning and developing resiliency building skills which may be

able to reduce the effects of the current trauma and protect against the effects of future trauma. For those who develop PTSD following trauma, professional intervention is the next step.

Intersection of Meaning and Trauma Interventions

The prevalence of PTSD varies across groups of individuals (American Psychiatric Association, 2013). For groups with the highest vulnerability for PTSD including survivors of rape, combat, captivity, and genocide, PTSD rates are 33-50% (American Psychiatric Association, 2013). Treatment for PTSD and other trauma response is crucial to intervention in the aftermath of public-school shootings in the United States. Frankl's existential-phenomenological approach to trauma intervention offers an alternative perspective on mental health diagnoses such as PTSD. By offering a holistic view of trauma and emphasizing wellbeing in lieu of pathology, Frankl's approach allows for more flexibility and understanding of the human experience in the context of suffering resulting from trauma (Du Toit, 2017). As many individuals affected by school shootings begin to speak out on the challenges they experience following these events and the changes they would like to see to reduce the prevalence of school shootings, there is great opportunity to influence evidence-based intervention in the aftermath and promote meaning-making through use of what is learned to prevent pain for others.

Equal to the importance of addressing individual experiences following trauma is the importance of unique trauma experiences when discussing treatment. Whether or not a traumatic event results in symptoms of ASD or PTSD depends partly on prior trauma history, level of resilience, and defense mechanisms. This suggests that treatment

interventions be based on the client's individualized needs and strengths (Carbajal, 2018; McKinnon, 1984). Research indicates that any program designed to treat complex trauma should include the three main pillars: development of safety, promotion of healing relationships, and teaching of self-management and coping skills (Purvis, Cross, Dansereau, & Parris, 2013). However, since existing approaches often do not address existential concerns that are inevitably prominent in the minds of traumatized individuals integration of Viktor Frankl's theoretical concepts can be very useful (Du Toit, 2017).

Evidence-Based Trauma Intervention

There are many therapeutic interventions supported by evidence for treatment of traumatized individuals beyond logotherapy and meaning making which appear protective for the 66% or more who do not develop ASD or PTSD, including eye movement desensitization and reprocessing (EMDR) which can be used to treat PTSD without the traditional time constraints of other trauma interventions or prevent PTSD when using the recent traumatic episode protocol (R-TEP) (Saltini et al., 2018), trauma-focused cognitive behavioral therapy (TF-CBT) which uses the added component of conjoint parent-child sessions to address the impact of trauma on children using the family dynamic (Cohen & Mannarino, 2008), prolonged exposure therapy (PE) which has perhaps the most evidence for PTSD intervention and teaches individuals a prolonged approach to exploring their trauma-related memories and feelings in a safe environment (Foa et al., 2017; Schnyder et al., 2015), cognitive processing therapy (CPT) which includes psychoeducation regarding symptoms of PTSD and distinguishing between thoughts and feelings, examining thoughts associated with the trauma, and writing an impact statement describing one's current understanding of the trauma and how it has had

an impact on his or her life, feelings of self, and views of the world (Schnyder et al., 2015) and Trust-Based Relational Intervention (TBRI) which uses three principles of *empowerment* to draw attention to physical needs, *connection* to draw attention to attachment needs and *correction* to draw attention to behavioral needs (Purvis et al., 2013).

While these mainstream approaches are effective for some, the inclusion of existential-phenomenological approaches offers an exploration of a wider range of human dilemmas that surface following traumatic experiences, such as school shootings, that otherwise may not have been addressed (Du Toit, 2017). The distinction of meaning-making as a method of preventing PTSD makes it an important intervention for enhancing the 66% or more who can develop resilience and posttraumatic growth rather than PTSD in the face of trauma. Based on the review of literature, gaps lie in identifying which evidence-based treatments are most effective with survivors of school shootings. For the purposes of this article, I will explore the use of meaning-making in preventing the development of PTSD and other trauma-related diagnoses following school shootings and promoting posttraumatic growth. Furthermore, I will explore how treatment contributes to the overall concept of finding meaning, healing, and recovery for survivors in a school setting.

Integration of Meaning and Evidence-Based Trauma Intervention

Conceptualization of trauma influences the ways in which one works with trauma therapeutically (Joseph, 2010). Trauma can be viewed as an opportunity for personal growth, alongside a greater appreciation for life and living (Frankl, 1986; Frankl, 1988; Du Toit, 2017). Frankl details this when he emphasizes healing through the discovery of

meaning and suggests that a certain level of suffering is necessary for individuals to learn healthy ways to accept trauma and move forward (Tate, Williams, & Harden, 2013). The integration of meaning-making and evidence-based intervention techniques would likely yield improvement in traumatized individuals, both related to their understanding of the trauma and reduction in symptoms. This is particularly relevant in the context of school shootings. By applying key concepts from logotherapy interventions to other evidence-based techniques and treatment modalities, meaning-making can be emphasized in traumatic events like school shootings.

According to Tate et al. (2013), an initial step in addressing trauma from the perspective of logotherapy is conceptualizing the struggle. This helps the traumatized individual in determining the effect that the event has had on their life (Tate et al., 2013). It also helps the clinician to start where the client is. Integration of techniques from EMDR may be useful in this area since EMDR focuses on past, present, and future as it relates to an individual's traumatic experience which highlights the component of meaning-making that allows one to take memories of the event and find appropriate ways to manage them in the present to eventually bring about positive future actions and adjustment (Saltini et al., 2018). This concept allows one to assess distressing memories from the traumatic event and gain insight into the event without reliving it which, according to Frankl, is the ultimate achievement in trauma treatment. For example, 1999 Columbine High School shooting survivor, Austin Eubanks, reports that he did not consider the way the shooting had become problematic in his life because it was too distressing to think about (Howard, 2018). Isolation and drug addiction became key methods of coping with the pain. After recognizing how trauma had influenced his

addiction, he was able to gain a better understanding of the trauma (Howard, 2018). Thus, conceptualizing the struggle could prove to be particularly useful for these types of individuals as Frankl notes that suffering and pain are unavoidable in the context of trauma (Frankl, 1986).

The next step in addressing school shooting trauma with logotherapy as a foundation highlights the need for discovering values; a phase that is recognized for its use of Socratic questioning to assist an individual in gaining a deeper understanding of a traumatic event (Tate et al., 2013). Socratic questioning is defined as “a technique whereby a therapist asks questions of clients to facilitate internal exploration to discover personal life meanings, to explore how these may be actualized, and to foster recognition that choices toward these ends are always available” (Tate et al., 2013, p. 86). This concept could be used with other treatment interventions as it lays the foundation for evidence-based practices such as TF-CBT and Cognitive Processing Therapy, both of which incorporate a trauma narrative that provides a way for an individual to develop the story of their personal experience much like Frankl’s concept of transcendence which makes use of personal narrative on the journey to discover meaning. It is not uncommon to find that a shift in one’s values has occurred following a traumatic experience (Tate et al., 2013). For Austin Eubanks, this was exactly the case. The grief from the loss of several close friends during the shooting heightened the value of close relationships and this conflicted with the loneliness, meaninglessness, and addiction that persisted for him years afterward (Howard, 2018).

The third concept of logotherapy important for meaning-making following a school shooting is applying values to create purpose (Tate et al., 2013). This approach is

important for the re-establishment of a personally meaningful set of values that may be used to identify a new purpose. Thus, the values that were discovered previously are now the framework for change in this phase (Tate et al., 2013). TBRI parallels this approach with its holistic framework indicating that shifts in values can occur on many different levels. Specifically, individuals who experience the trauma of a school shooting need treatment on cognitive, physical, and spiritual levels to address ways in which to apply new values. For example, after several years of addiction related to surviving the Columbine High school shooting, Eubanks was able to re-establish value in social connections which created new purpose in promoting addiction recovery (Howard, 2018). He is now the chief operations officer for the Foundry Treatment Center, a substance abuse treatment center in Colorado (Howard, 2018).

Finally, empowerment beyond counseling is a logotherapy concept key in maintaining healing and treatment gains following intervention (Tate et al., 2013). The goal of this phase is to charge the individual with the responsibility of carrying over the things learned in treatment into future life experiences similar to most other mainstream trauma interventions. In the case example of Austin Eubanks, empowerment beyond counseling is demonstrated not only in his attempts to promote awareness of addiction recovery but also is his attempts to warn other survivors about the dangers of self-medicating with various tools such as illegal substances, television, pornography and even activism (Howard, 2018). He states that traumatized individuals should engage in their own healing process in lieu of avoidance (Howard, 2018).

Conclusion

There are many evidence-based trauma interventions that are available for the treatment of youth and adults in school settings (Corbett & Martin, 2011; Saltinti et al., 2018). Some treatments incorporate coping skills prior to the trauma processing of treatment and others incorporate skills throughout treatment. Some treatment modalities with the exception of EMDR use written trauma narratives (Shapiro, 2014) while others use verbal story-telling during treatment. The use of meaning-making is important in trauma treatment as it has been identified as an essential theoretical component in processing and reducing trauma symptoms (Corbett & Martin, 2011). Trauma treatment interventions appear to include techniques that are built on Viktor Frankl's concepts of fostering meaning after a traumatic event (Corbett & Martin, 2011). The concept of meaning in evidence-based treatments is essential to the trauma healing process (Corbett & Martin, 2011). Logotherapy provides a promising framework for addressing the trauma of school shootings in a way that can be integrative. Implications suggest a key role for school and clinical social workers in treatment following a school shooting. There are expected to be caveats when suggesting trauma treatment with a focus on meaning-making, however, social workers can act as a bridge between the gap and work to assist school professionals and students in receiving effective and meaningful trauma treatment following a school shooting. Social workers are uniquely positioned within U.S. public schools to assist in improving the trauma responses of many schools to what will, perhaps, be a more comprehensive way of managing trauma after a school shooting.

References

- Altmaier, E. M. (2013). Through a glass darkly: Personal reflections on the role of meaning in response to trauma. *Counselling Psychology Quarterly*, 26, 106-113. doi: 10.1080/09515070.2012.728760
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders*. (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Bang, J. (2009). Nothingness and the human umwelt: A cultural-ecological approach to meaning. *Integrative Psychological & Behavioral Science*, 43, 374-392. doi: 10.1007/s12124-009-9101-3
- Barrett, D. (2014, September 24). Mass Shootings on the Rise, FBI Says. *Wall Street Journal*. Retrieved on May 22, 2018 from <http://www.wsj.com/articles/mass-shootings-on-the-rise-fbi-says-1411574475>
- Bergland, C. (2013). The neuroscience of Post-Traumatic Stress Disorder. *Psychology Today*. Retrieved on July 22, 2018 from <https://www.psychologytoday.com/us/blog/the-athletes-way/201311/the-neuroscience-post-traumatic-stress-disorder>
- Carbajal, S. F. (2018) Trauma-focused interventions: A clinical practice analysis. Practitioner Scholar: *Journal of Counseling & Professional Psychology*, 7, 19-33.
- Cann, A., Calhoun, L. G., Tedeschi, R. G., Kimer, R. P., Gil-Rivas, V., Vishnesvsky, T., & Danhauer, S. C. (2010). The core beliefs inventory: A brief measure of disruption in the assumptive world. *Anxiety, Stress, & Coping*, 23(1), 19-34. doi: 10.1080/10615800802573013

- Cohen, J. A. & Mannarino, A. P. (2008). Trauma-focused cognitive behavioural therapy for children and parents. *Child and Adolescent Mental Health*, 12, 158-162. doi: 10.1111/j.1475-3588.2008.00502.x
- Cook, E. C., Chaplin, T. M., Sinha, R., Tebes, J. K., & Mayes, L. C. (2012). The stress response and adolescents' adjustment: The impact of child maltreatment. *Journal of Youth and Adolescence*, 41(8), 1067–1077. doi: 10.1007/s10964-012-9746-y
- Corbett, L. & Milton, M. (2011). Existential therapy: A useful approach to trauma? *Counseling Psychology Review*, 26, 62-74.
- Dezelic, M. (2014). A comprehensive meaning-centered existential therapeutic approach. Retrieved on July 10, 2018 from <https://www.drmariedezelic.com/single-post/2014/01/07/A-COMPREHENSIVE-MEANING-CENTERED-EXISTENTIAL-THERAPEUTIC-APPROACH>
- Du Toit, K. (2017). Existential contributions to the problematization of trauma: An expression of the bewildering ambiguity of human existence. *Existential Analysis*, 28, 166-175.
- Foa, E. B., McLean, C. P., Zang, Y., Rosenfield, D., Yadin, E., Yarvis, J.S....Peterson, A. L. (2017). Effect of prolonged exposure therapy delivered over 2 weeks vs 8 weeks vs present-centered therapy on PTSD symptom severity in military personnel: A randomized clinical trial. *Journal of the American Medical Association*, 31, 354-364. doi: 10.1001/jama.2017.21242
- Frankl, V. (1986). *The Doctor and the soul: From psychotherapy to logotherapy*. New York, NY: Vintage Books.

- Frankl, V. (1988). *The will to meaning: Foundations and applications of Logotherapy*. New York, NY: Penguin Group Publishing.
- Gusich, G. (2012). A phenomenology of emotional trauma: Around and about the things themselves. *Human Studies*, 35, 505-518. doi: 10.1007/s10746-012-9247-8
- Howard, J. (2018, February 23). School shooting survivor: “There’s so many of us now.” *CNN*. Retrieved on July 30, 2018 from <https://www.cnn.com/2018/02/23/health/school-shooting-survivors-profile/index.html>
- Jimerson, S. R., Brock, S. E., & Pletcher, S. W. (2005). An integrated model of school crisis preparedness and intervention: A shared foundation to facilitate international crisis intervention. *School Psychology International*, 26, 275-296. doi: 10.1177/0143034305055974
- Joseph, S. (2010). Working with psychological trauma. *Healthcare Counseling & Psychotherapy Journal*, 10, 4-5.
- Landwehr, M. (2017). Meaning centered existential analysis: Philosophy as psychotherapy in the work of Viktor E. Frank. *Journal of Austrian Studies*, 50, 177-179.
- LeFevre, P. (1966). *Understandings of man*. Philadelphia, PA: Westminster Press.
- McKinnon, J. (1984). Brief psychotherapy of the Vietnam combat neuroses. In H.J. Schwartz (Ed.), *Psychotherapy of the combat veteran* (p. 125-152). New York, NY: Spectrum Publications.
- Meichenbaum, D. (2012). *Roadmap to resilience: A guide for military, trauma victims and their families*. Waterloo, ON, Canada: Institute Press.

- Morgan, J.H. (2010). *Beginning with Freud: The classical schools of psychotherapy*.
Lima, OH: Wyndham Hall Press.
- Purvis, K. B., Cross, D. R., Dansereau, D. F., & Parris, S. R. (2013). Trust-based relational intervention (TBRI): A systematic approach to complex developmental trauma. *Child & Youth Services, 34*, 360-386. doi: 10.1080/0145935X.2013.859906
- Reitinger, C. (2015). Viktor Frankl's logotherapy from a philosophical point of view. *Journal of the Society for Existential Analysis, 26*, 344-357.
- Reuters (2018). Columbine, Sandy Hook, and Virginia Tech: Major school shootings in the United States in the last 20 years. *Daily Mail News*. Retrieved from on July 10, 2018 <http://www.dailymail.co.uk/news/article-5392845/Major-school-shootings-United-States.html>
- Saltini, A., Rebecchi, D., Callera, C., Fernandez, I., Bergonzini, E. & Starace, R. (2018). Early eye movement desensitization and reprocessing (EMDR) intervention in a disaster mental health care context. *Psychology, Health & Medicine, 23*, 285-294. doi: 10.1080/13548506.2017.1344255
- Schnyder, U., Ehlers, A., Elbert, T., Foa, E. B., Gersons, B. P. R., ... Cloitre, M. (2015). Psychotherapies for PTSD: What do they have in common? *European Journal of Psychotraumatology, 6*, 383-387. doi: 10.3402/ejpt.v6.28186
- Seidman, I. (2012). *Interviewing as qualitative research: A guide for researchers in education* (4th ed.) New York, NY: Teachers College Press.

- Shapiro, F. (2014). EMDR therapy humanitarian assistance programs: Treating the psychological, physical, and societal effects of adverse experiences worldwide. *Journal of EMDR Practice and Research*, 8, 181-186. doi: 10.1891/1933-3196.8.4.181
- Stallard, P. & Salter, E. (2003). Psychological debriefing with children and young people following traumatic events. *Clinical Child Psychology and Psychiatry*, 8, 445-457.
- Tate, K. A., Williams, C., Harden, D. (2013). Finding purpose in pain: Using logotherapy as a method for addressing survivor guilt in first-generation college students. *Journal of College Counseling*, 16, 79-92. doi: 10.1002/j.2161-1882.2013.00028.x
- Tedeschi, R. G., & Riffle, O. M. (2016). Posttraumatic growth and logotherapy: Finding meaning in trauma. *The International Forum for Logotherapy*, 39, 40-47.
- Uffalussy, J. G. (2016, June 2). What it's like to survive a school shooting. *TeenVogue*. Retrieved on July 19, 2018 from <https://www.teenvogue.com/story/school-shooting-survivor-stories>
- Vieselmeier, J., Holguin, J., & Mezulis, A. (2017). The role of resilience and gratitude in posttraumatic stress and growth following a campus shooting. *Psychological Trauma: Theory, Research, Practice, and Policy*, 9(1), 62–69. doi: 10.1037/tra0000149

Wingo, A. P., Wrenn, G., Pelletier, T., Gutman, A. R., Bradley, B., & Ressler, K. J.
(2010). Moderating effects of resilience on depression in individuals with a
history of childhood abuse or trauma exposure. *Journal of Affective Disorders*,
126 (3), 411-414. doi: 10.1016/j.jad.2010.04.009

CHAPTER FIVE

Conclusion

Introduction

Research on public school shootings in the U.S. has largely focused on prevention of school shootings rather than intervention in the aftermath which does not seem to have diminished the incidence. As school shootings continue to occur, the need for trauma intervention following school shootings is clear. Public schools across the United States have become increasingly aware of the risk of the negative effects that trauma symptoms following school shootings can have on the student population and on faculty and staff members and thus, have made some attempts to address this issue by creating drills and safety plans. However, these efforts have remained sporadic, unclear and can contribute to student and staff anxiety if schools fail to assess their school's readiness for interventions after the trauma of a shooting. The purpose of this study was to identify how public schools are currently addressing trauma symptoms following school shootings which includes examination of the body literature including trauma intervention theory and practice, a qualitative study on public school leaders' personal experiences with school shootings and a quantitative study on school leaders' attitudes toward current trauma intervention methods used in public schools with specific attention to school shootings. This chapter includes a discussion of major findings in literature on trauma intervention, qualitative and quantitative research study findings on how public schools across the United States are currently addressing this issue, and barriers that might prevent the use of such interventions. Also included is a discussion on implications

of findings for social work practice, particularly in schools. The chapter concludes with a brief integrative summary, a discussion of the limitations of the research, and recommendations for future social work research, practice, and policy.

This research was designed to address the following research questions:

- 1.) What are the lived experiences of public school shootings among public school teachers, guidance counselors, and administrators, including their experiences with the community and school response subsequent to the shooting?
- 2.) What programming and resources are U.S. public schools providing or providing access to for students, public school teachers, guidance counselors, and administrators related to school shootings and/or surviving school shootings?

The findings for these questions were multi-dimensional and comprised several themes based on the perceptions of public-school administrators, teachers, and guidance counselors. First, to answer research question one, qualitative interviews were conducted with public school employees (e.g., teachers, guidance counselors, and administrators) that had experience with school shootings to explore these experiences and their perceptions of trauma intervention following their school shooting. Four themes emerged from this study as important factors to the healing process for those public school employees in aftermath of school shootings: (1) perception of support in the form of emotional, community, and tangible support, (2) trauma intervention such as individual counseling and bonding activities, (3) unintended negative consequences such as student attrition and strained district relationships, and (4) barriers to trauma intervention, particularly funding and training resources.

Second, to answer research question two, a quantitative survey was conducted among public school administrators, teachers, and guidance counselors nationwide whether they had personal experience with school shootings or not, to determine what programming and resources U.S. schools are providing access to for students and employees in the event of a school shooting. Findings for this study indicated that: (1) of the respondents that were sure that their school possessed a trauma and/or crisis plan, only 16.9% indicated that this plan addressed issues related to school shootings and/or provided trauma intervention strategies that can be used in the aftermath of a shooting, (2) peer mentoring, no tolerance bullying policies, no tolerance threat policies, trauma-informed practices such as restorative circles, mental health counseling, and police intervention were often mentioned as specific strategies used in schools to prevent school shootings or intervene following a shooting incident, and, (3) a majority of respondents were unsure of the effectiveness of these trauma interventions in the event of school shootings. Additionally, respondents were unsure about services that may or may not be provided to them in the event of a school shooting and many respondents did not feel that their school has equipped/trained them to handle a traumatic crisis such as a school shooting.

Finally, a theoretical and/or conceptual analysis was completed to explore the integration of Viktor Frankl's existential theory and evidence-based practice in trauma intervention and how this may be applied to trauma intervention in the aftermath of school shootings. Recommendations from this analysis suggest that concepts (i.e., meaning-making) from Frankl's logotherapy can be easily integrated with current evidence-based treatments for trauma and trauma-informed care models. The meaning-

making concept is important in managing trauma because it challenges individuals to transition from a deficit-based thinking pattern to a strengths-based thinking pattern and thus, increases capacity for resilience building. Additionally, evidence-based treatments developed for schools and youth were explored.

These three components form an overarching exploration of the understanding of trauma intervention following school shootings and the role public schools play and can play in responding to school shootings. Each component represents an important component of the complexity of effective responses to school shootings. Together they integrate to create a longitudinal and/or timeline view of school shootings in the United States via exploration of the trauma impact of the school shootings of the past (i.e., interviews with public school employees with school shooting history), the trauma interventions used in the present (i.e., survey of public school employees on current public school interventions), and a beginning look at resilience building and trauma interventions to be used and evaluated in the future (i.e., theoretical exploration of the integration of logotherapy concepts with evidence-based trauma interventions).

Interpretation of Findings

While the experience of school shootings may include variation for each study participant, there were some common themes among those individuals who participated in qualitative interviews as well as those who responded to the national survey. These themes offer insight into important factors in the trauma intervention process following a school shooting. Qualitative themes and quantitative findings are described in detail in the following sections.

Qualitative Findings

I conducted 12 semi-structured qualitative interviews with public school teachers, guidance counselors, and administrators. Eight participants were teachers, two were administrators and two were guidance counselors. Participants ranged in age from 29 years old to 62 years old ($M=44.33$, mode =50). Participants' average length of employment in a U.S. public school was 11 years (range: 2 years to 20 years of experience). Eighty-three percent of participants identified as women and 17% as male. Four primary selective codes were determined as they were the most frequently mentioned themes and were presented as the four emergent themes in this study. The emergent themes included: perception of support, trauma intervention, unintended negative consequences, and barriers to trauma intervention.

Perception of support. This study's finding that perception of support in the form of emotional, community, and tangible support is essential to the trauma intervention process parallels previous research that indicates support is a protective factor for traumatic experiences and protects against the development of post-traumatic stress disorder (PTSD) (Salloum & Overstreet, 2012; La Greca, Silverman, Lai, & Jaccard, 2010; La Greca, Silverman, Vernberg, Prinstein, 1996). The perception of support or lack thereof appears to be associated with the way in which one is able to cope with a traumatic experience. While some participants perceived a great amount of support from their schools and communities, others did not perceive the same amount of support. Ultimately this perception appeared to affect individuals' methods of coping and outlook on the traumatic experience overall. For example, participants who felt their schools and communities provided sufficient support for them following a school shooting also

expressed feelings of gratitude and verbalized good adjustment in the aftermath. In contrast, participants who felt their schools and community did not offer enough support expressed feelings of anger, bitterness, and verbalized more struggles in the aftermath of the school shooting. Another important factor to consider is that perception of support can be connected to the experience of support through other life events (i.e., healthy family attachment, access to health and mental health services, spiritual support, etc.).

There appeared to be no differences in what types of things constituted support for participants. Many participants identified tangible supports such as cards and food as helpful in addition to emotional support such as counseling services and support persons during the workday and community supports such as gatherings, vigils, and church services. Findings suggest that support in many forms following a school shooting is critical to the adjustment of an individual in the aftermath.

Trauma intervention. While perceived support is an important factor in the aftermath of a school shooting, formal trauma intervention such as individual counseling and group services were also an important theme to emerge in this study's findings. Participants found that these services were important for some students and staff members. These services were particularly important for individuals who experienced trauma symptoms in the aftermath of a shooting. Participants expressed consistent sentiments that the timing and location of trauma intervention services were often not aligned with the needs of shooting survivors. For example, many participants shared that trauma counseling was offered in the immediate aftermath of a shooting on the school's campus but not in the long term. Additionally, only one participant mentioned group intervention services being offered at her school following a shooting; however, the

service was not offered until several years after the shooting incident. The emphasis on not only the presence of formal trauma intervention services on campus following a school shooting but also the timing of which those services are offered in this study is consistent with what the literature posits regarding evidence-based practices for trauma symptoms. Specifically, trauma literature suggests that formal trauma intervention is often not most effective in the immediate aftermath of a traumatic experience due to one's difficulty and/or inability to process the incident and that long term trauma intervention is pertinent to one's adjustment and healing process (Purvis, Cross, Dansereau, & Parris, 2013; Salloum & Overstreet, 2013). Additionally, one may not know what they need immediately after a traumatic incident as they try to make sense of what happened. Thus, findings suggest that easily accessible (e.g., school-based services) trauma intervention, both in the immediate aftermath and long term are necessary for healthy adjustment after a school shooting.

Unintended negative consequences. Unintended negative consequences such as teacher and student attrition and strained school-school district relationships were noted as common results following a school shooting per study participants. This study's results indicated that in the event of a school shooting some pressure is placed on the relationship between the affected school and the school district often related to funding for trauma intervention needs and methods of support. This is especially true for schools and school districts that have different perspectives on courses of actions that should be taken in the aftermath of a school shooting. For example, a school may feel it necessary to provide opportunities for students and employees to discuss the events of the shooting in the aftermath to promote healing while the school district may prohibit this due to legal

proceedings or attempts to limit media scrutiny. Additionally, participants indicated that teacher and student attrition rates appeared to increase following a school shooting due to reasons related but not limited to parental fear for the safety of their children and student and teacher anxiety symptoms and/or fear of retriggering stimuli on the school's campus. Teacher attrition may also be related to the challenges of needing support in order to manage their own trauma responses while being fully present for student needs. Findings suggest that collaborative and/or interdisciplinary efforts should be taken to develop a plan of action that serves interests of both the school and the school district as well as addresses issues related to teacher and student attrition such as feelings of safety following a school shooting, lack of services for the population, and managing their own grief and sense of being out of control (Mongan et al., 2009).

Barriers to trauma intervention. Barriers to trauma intervention were primarily associated with funding, training resources, and time constraints. Specifically, this study's results indicated that inadequate funding for trauma intervention services interfered with schools obtaining sufficient resources following a school shooting. Also, there was a lack of training resources related to how school professionals should address incidents such as school shootings. This aligned with previous literature that suggests school professionals are historically not trained to manage trauma crises in schools at the level of magnitude of a school shooting (Fein, 2008). Finally, time constraints within the school day were presented as a barrier to trauma interventions as participants suggested that there was simply not enough time in the school day or year to address trauma needs. Findings suggest that, again, a collaborative and/or interdisciplinary model, especially on an organizational, systematic level is needed to address budget issues in schools related to

trauma intervention, professional development on trauma-informed care, and flexibility in the public school schedule or alternate schedule in the event of a mass traumatic event.

Quantitative Findings

Results of the national survey conducted with public school teachers, administrators, and guidance counselors also yielded some key insight related to trauma intervention in the aftermath of school shootings. Findings further confirmed qualitative findings that professional development on trauma-informed care is needed for school professionals as many respondents do not feel equipped/trained to handle a traumatic crisis at school such as a school shooting. Findings also suggested that additional efforts should be made to develop trauma/crisis plans in schools that include specific trauma intervention strategies and are disseminated to all school professionals as many respondents indicated that their school does not possess a trauma plan or they are unaware of such as plan and those that were aware of a trauma/crisis plan were seldom able to confirm that the plan contain trauma intervention strategies useful in the aftermath of a school shooting. Overall, education is needed on school crisis protocol, trauma-informed care, and trauma services available to students and staff in the event of a school shooting.

Implications for Theory and Research

Chapter four included an exploration of the theoretical background of this research. Key to trauma survival is resilience and capacity for meaning-making. Viktor Frankl's existential theory and theoretical concepts provide the framework for meaning-making and resilience in trauma intervention following school shootings. Frankl's (1986) theory includes the suggestion that one's outlook on the world often changes following a

traumatic experience which can trigger or heighten a desire for a search for meaning. Frankl's theory introduces the concept of the *will to meaning* which posits that individuals are driven by an internal desire to finding meaning and purpose in life and argue that meaning can be found even in life's most difficult traumas (Frankl, 1988; LeFevre; 1966). Thus, this meaning-making process can be used to assist an individual in healing from trauma-related distress.

In this study, some participants in qualitative interviews made comments related to interventions and activities that aided them in identifying meaning following a school shooting. These interventions included but were not limited to individual counseling, bonding activities with fellow survivors, and support groups. However, the needs of traumatized individuals following a school shooting as it relates to the meaning-making process, do not appear to rest solely on easily conceptualized interventions. For example, one school shooting survivor verbalized that time spent praying and serving others was helpful for her in making meaning of her school shooting experience while other participants were unable to find meaning behind a school shooting at all. The complexities of attachment, resilience, and capacity to contextualize the experience are all factors identified in post-trauma adjustment (Afifi, Merrill, & Davis, 2016; Vieselmeyer, Holguin, & Mezulis, 2017).

Despite one's ability to make meaning of a traumatic experience on their own, individuals who have experienced trauma often benefit from access to resources that assist with this during the healing process. Although it is unclear if public schools are aware of research on meaning-making following traumatic events or place emphasis on meaning-making following school shootings, it is clear, based on quantitative survey

findings, that many schools utilize mental health professionals and other supportive services to address trauma. In these cases, Frankl's theory and meaning-making concepts can be used in collaboration with evidenced-based trauma interventions and trauma-informed care models already established or being provided. Thus, rather than implementing a new trauma intervention method altogether, public schools can use Frankl's concepts in addition to trauma interventions that are already being provided by the school to enhance the healing process for traumatized individuals. For example, meaning-making activities can be used with community groups, in therapeutic and support groups and more. This alternative will perhaps increase the likelihood of adopting this strategy as it reduces time spent learning a new intervention method for mental health professionals, is easily adaptable to school-wide bonding activities and assemblies, and draws on the strengths of the school. The integration of Frankl's theoretical concepts and evidence-based trauma interventions could potentially result in improvement in school shooting survivors in the form of improved understanding of their trauma and symptom reduction. Evaluation of practice (i.e., measuring the impact of intervention against standardized measures) would be beneficial to determine individual outcomes in these scenarios.

Implications for Practice

In light of traumatic events occurring on school campuses like school shootings, social workers in schools, individually and as members of crisis teams, can provide invaluable assistance to school personnel, students and parents/families through clinical and organizational practice approaches (Mirabito & Callahan, 2016) as well as provide instruction/leadership in community support services like churches, community groups,

etc. School social work services during times of crisis offer unique, evidence-based perspectives that help members of the school and community to work through trauma and learn new coping skills (Mirabito & Callahan, 2016), and provide support for each other. School social workers are positioned to provide leadership and support in implementing changes like trauma-informed practices that will support teachers and staff and that will meet various student learning and emotional needs and thus, help to close the achievement gap that students display following the experience of a traumatic event (Anderson-Ketchmark & Alvarez, 2010). Social workers may also help in supporting teachers and other school personnel in their own healing and assuming their normal, day to day roles. These will be necessary while blending the skills to develop trauma-informed practices that increase the emotional and behavioral stability of students in the classrooms. This is especially important because traditional behavior management techniques and educational approaches, even when masterfully implemented, are less effective when trauma is involved (Siegel, 2015).

Managing trauma following a school shooting may be facilitated by implementing trauma-informed approaches because the underlying assumption is everyone within the school community has experienced the same trauma: a school shooting. This assumption makes it easier to recognize the need for trauma-informed practices in the school in addition to increasing awareness of triggers that may re-traumatize students and/or faculty members. This could make it effective and efficient to respond to the effects of traumatic stress on students and colleagues using a collaborative team approach, fostering recovery and resilience through organizational culture, policies, and practices that promote trauma awareness and skills (Henry, 2009; Hudson, Windham, Hooper, 2005;

Siegel, 2015). Shifting from a narrow analytical approach of school shootings highlights many disciplines that have interrelated roles in this complex situation (Henry, 2009). Social work is central to this. School social workers are important to this process because they are one of the few team members that could potentially intervene with the students, teachers, parents, school administrators, policymakers, key stakeholders, and service providers in the community (Siegel, 2015). The skills in micro, mezzo, and macro practice provide the scope of care needed following such a traumatic event. Thus, the social worker can assume many roles as an educator, advocate, and mediator for prevention and intervention to help foster a trauma-informed school culture. For example, a social worker may provide services like training and consultations to school personnel about how to recognize triggering feelings in themselves and in students as well as how to interpret students' behaviors as potentially trauma reactive (Siegel, 2015). Other techniques helpful in creating a trauma-informed culture in schools that social workers can be integral parts of include learning how to respond to behaviors in non-triggering ways using verbal de-escalation and how to create safe classroom environments (Siegel, 2015). Facilitating groups, leading family sessions, providing counseling and trauma therapy, and engaging in case management services are all appropriate roles for the social worker.

Social work role leadership for trauma intervention in schools is advantageous on many accounts. Public schools that employ school social workers would likely be able to maximize the benefits of trauma-informed approaches because of a social worker's ability to engage in interdisciplinary settings to coordinate the use of resources. Considering the many key stakeholders involved in public school systems, this is a huge

advantage. Writing grants, creatively funding services, engaging and training volunteers, and facilitating community resources are all strengths of social workers. Offering counseling and therapy and/or making appropriate referrals for those are fundamental to social work practice. Ultimately the goal to improve resiliency in traumatized individuals, create safe environments and healthy attachments, improve response to potential trauma reactions are more easily achieved with the collaboration of school team members including social workers.

Implications for Policy

The frequent occurrence and devastating impact of school shootings have also increased discussion surrounding policy change nationally as well as locally. Policy changes in areas such as gun control, school safety measures, and education resources have been suggested among policymakers, concerned parents and students, and various school districts across the nation (Nedzel, 2014; Thompson, 2014; Ujifusa & Superville, 2018). Any changes to policy in response to school shootings should attempt to intersect with the social influences of school shootings in order to comprehensively address the impact on students, schools, and surrounding communities. The growing need for implementation of policy change across all states and in all public schools is clear as public school shootings have occurred across all regions of the U.S. and at every level of education (e.g., elementary, secondary, collegiate). However, consistent and/or standard policy changes regarding these issues have not been agreed upon and typically vary from state to state. Further, most policy discussion is centered on prevention rather than post-shooting intervention and services. The reality is that despite prevention discussion and

policy, the incidence of school shootings is increasing as is the need and demand for effective responses and interventions.

The results of this study suggest that policies affecting U.S. public schools may not be as effective to address incidents of school shootings as needed. For example, many study interviewees reported that their schools have had to apply for grants and additional funding following school shooting incidents to give students and faculty members access to resources they need, particularly trauma intervention resources such as mental health treatment. Although many schools are able to get approved for additional funds, the underlying issue points to larger policy issues such as the lack of school funding for resources needed in the aftermath of a school shooting and lack of trauma-informed resources in public schools which could build capacity for resilience before a trauma like a school shooting. Additionally, applying for grant funding assumes an inherent wait time for approval of said funds potentially leaving traumatized individuals in need of services with limited resources. A policy that provides funding rather than providing application would change the delivery of timely resources.

Another policy implication highlighted by this study's results related to school shooting trauma intervention is the need for more professionals in schools that are trained in psychological first aid and/or trauma response. School shooting incidents in the U.S. have contributed to a growing discussion of training in this area for school professionals especially because research indicates that many of the formal leaders such as superintendents and principals find themselves delegating tasks and key roles to informal leaders such as guidance counselors, and teachers, and support personnel (Fein et al., 2008). However, these professionals are often unprepared to manage the needs generated

by a school shooting and, in fact, school counselors who have responded to school incidents have vocalized inadequate preparation and the need for training to respond to the event (Lovre, 2003; Shen & Sink, 2002). These concerns and lack of knowledge of trauma-related interventions and plans were aligned with this study's survey results which indicated that of the survey respondents that confirmed their school had a trauma and/or crisis plan, very few confirmed that the plan included specific trauma interventions and strategies related to school shootings. Additionally, many survey respondents indicated feeling unprepared to handle the effects of a school shooting at their school.

Future Directions

Given the findings of this research study, the need is for future work to continue to build upon my dissertation research. Short-term goals include a follow up national study with a larger and more diverse sample, with a secondary goal of exploring differences across allied helping professions in schools (e.g., school psychologists, school social workers, school therapists, and school behavioral intervention specialists) to compare allied professions' orientation with this area of research focus. Intermediate goals would be to develop and pilot trauma interventions in schools and test their effectiveness as well as policy development that provides trauma response services in schools without the length of a grant application process. Long-term goals involve using findings on trauma intervention in public schools to develop a standardized trauma intervention model for use in schools applicable for everyday use and following mass trauma incidents such as school shootings. This model could then be integrated into a training program, specifically designed for current public-school employees and

community partners who may not have received similar training during their educational studies or professional development training related to trauma-informed care and resilience building. Additionally, funding sources that may be interested in supporting this work might include Fahs Beck Fund, the National Education Association, and Project Prevention, which have supported projects related to trauma intervention and school violence in the past.

Limitations and Recommendations for Future Research

While I continue to support that qualitative research was a good choice for this study topic, particularly when coupled with the quantitative research which offered more evidence to strengthen the data discovered using qualitative research tools, the qualitative methods would have benefited from a more diverse sample of school shooting survivors. Specifically, interviews might have captured more nuanced responses if school shootings from all regions of the U.S. were represented in the interviews instead of two out of the four (i.e., South and West). Also, the length of time between the shooting event and the research coupled with the attrition rate could have impacted the number of respondents and potentially skewed the results if these are characteristics are more likely to show up in those who left the school. Regarding the quantitative survey, it is possible that the findings reflect limitations in the measurement scale as some responses indicated wording issues, difficulty in respondent comprehension on some items, and respondents being unwilling to self-disclose information regarding their schools. In addition, previous trauma histories of individuals and schools, as well as the socioeconomic factors surrounding the school environment, could have potentially impacted employee perception of school trauma response, access to trauma resources, and resiliency building

skills. Despite these limitations, the study suggests that further research in this area is warranted.

Several areas for future research on targeted demographics could add to the findings in this study. Next steps for research include duplicating the quantitative and/or qualitative studies to compare and understand the experiences of school shootings across other professions in schools especially those with roles in behavioral health and social needs of students including but not limited to, school social workers, school therapists, and school psychologists. Another demographic to study differences in would be first responders and trauma counselors and/or specialists that respond to school shooting incidents to evaluate for secondary trauma issues and/or effective trauma interventions. Additional demographics using a larger and more diverse population within this topic of research could help to determine if there are large differences across professions in the perception of the way public schools manage trauma following school shootings. Also, a broader demographic of participants may give more insight into the development of efficient and effective methods to manage trauma following school shootings.

School trauma intervention research suggests collaborative and trauma-focused intervention models used by public schools would be most appropriate in aiding individuals following school shootings (Dauber, Lotsos, & Pulido, 2015; Gelkopf & Berger, 2009; Mendelson et al., 2005). Future research would explore several angles of trauma intervention following school shootings including 1.) developing and piloting models for school crisis protocol/response plan, trauma-informed care, and trauma services in schools that have survived a school shooting, 2.) evaluating the effectiveness of these trauma-informed and trauma intervention models adapted for public schools with

PTSD symptom reduction and assessing for daily use and use in the aftermath of a school shooting, 3.) examining research on best practices for integration of trauma response in a school following a school shooting while still meeting academic curricular needs, 4.) training school professionals to manage trauma crises in schools at the magnitude of a school shooting and providing recommendations with a plan for evaluation of effectiveness, 5.) increasing awareness of meaning-making research and its integration in trauma intervention in schools, 6.) gathering and disseminating suggestions for communities and community leaders on support following school shootings, and 7.) development of a trauma-informed model and/or training specifically for the use of trauma response in the event of a school shooting.

Conclusion

The notion that public schools are engaging in sufficient trauma intervention following school shootings or are prepared to do so is generally rejected in this study, although there are many schools that have made initial attempts to improve in this area. Across participants in this study, many indicated that trauma intervention related to school shootings needs improvement. One exception is the public school emphasis on mental health counselors and police officers in schools. However, despite what appears to be a consistent presence of at least one mental health professional and one police officer in many schools across U.S. public schools, public school employees report that this is not enough to manage either prevention or the trauma impact in the event of a school shooting. If the safety and emotional well-being of those in public schools are vital to the United States as a nation, there is still work to do to help improve public school response to the trauma of school shootings.

There is limited data in this study that suggests that there are consistent policies, cultures, and values among public schools for trauma intervention related to school shootings. If U.S. public schools are not working to develop consistent responses to school shootings where traumatized individuals, including school faculty and staff, are receiving immediate and long-term support services that promote healing and safety, and laws are not equipping public schools to provide these types of supports and interventions, then there is still work to do to advance United States public schools in the area of trauma response, particularly as it relates to school shootings.

Qualitative results of this study suggested that there are important factors to the trauma intervention process for public school employees that must be considered in the aftermath of school shootings including (1) perception of support in the form of emotional, community, and tangible support, (2) trauma intervention such as individual counseling and bonding activities, (3) unintended negative consequences such as student attrition and strained district relationships, and (4) barriers to trauma intervention, particularly funding and training resources. Key factors in quantitative results indicated that: (1) of the respondents that were sure that their school possessed a trauma and/or crisis plan, only 16.9% indicated that this plan addressed issues related to school shootings and/or provided trauma intervention strategies that can be used in the aftermath of a shooting, (2) peer mentoring, no tolerance bullying policies, no tolerance threat policies, trauma-informed practices such as restorative circles, mental health counseling, and police intervention were often mentioned as specific strategies used in schools to prevent school shootings or intervene following a shooting incident, and, (3) a majority of respondents were unsure of the effectiveness of these trauma interventions in the event

of school shootings. Also, many respondents were unclear about services that may or may not be provided to them in the event of a school shooting. Findings suggest improved education of public school employees on schools' trauma plans, how to engage in trauma intervention strategies, and access to support services in the event of a school shooting. Findings also suggest improved mental health services and support services in the event of a school shooting as well as decreased barriers in accessing these services. Finally, implications for social work roles include an emphasis on trauma certification specifically for those in the role of a school social worker.

Trauma intervention in public schools may not be widely practiced as evidenced by research results. However, the ownership for the implementation of this concept in schools does not lie primarily with public schools. If individuals, communities, policymakers, non-profit agencies, and businesses join forces with the agreed-upon objective to ensure that schools are better equipped to manage this type of phenomenon, school shooting survivors may be more likely to show improved outcomes and less traumatic symptoms. Implications for such an accomplishment could mean decreased suicide rates and mental health diagnoses for school shooting survivors and improved perceived support in the aftermath of a school shooting from school employee survivors.

APPENDICES

APPENDIX A

Interview Script

Demographic Questions

1. So, as we begin, tell me about yourself.... for example, age, gender, employment status...
2. Tell me about the school that you currently work for? How long have you been working for this school? Is this the school where the shooting occurred? Tell me about that school as well.
3. What is your previous work experience in other public schools, if any? Please share your experience with trauma or traumatic events at any of those previous work experiences. Is there anything you learned or experienced in those schools that prepared you or helped you get through the school shooting experience?

Main Questions

1. Tell me about your work at _____ school.
2. What led you to this school to work?
3. What are/were some of your duties there?
4. What do/did you find enjoyable about your job? Describe a typical day for you at the school
5. Please share with me about the day of the shooting that occurred at your school.

How did your day begin? How did you know about the event? Describe what you saw, heard, experienced? Describe what others have told you or you have learned

- through the news since then? When and how did you know the actual attack and danger were over?
6. Describe the days immediately after the shooting? What responsibilities did you have? Who did you interact with? What was hardest for you? What was helpful to you? How would you describe your reaction to the event in the days immediately following? What did you need? Did you get what you needed? From whom? Can you say more about that?
 7. As you think about the event and the persons who were involved, who and/or what do you believe was most affected by this event? Describe the impact on them. As you think about others who might not have been directly involved, are there others who were affected? How were you involved with them in the days and weeks afterward?
 8. What has been the longer-term impact on the school? On you? How have you managed that?
 9. Who did you interact with who you felt was significantly affected by the event over the months and years since then?
 - a. How would you describe their responses?
 - b. Are you aware of things that helped? Didn't help? Made it worse?
 10. What is your experience and understanding of how the event affected the students; individually? as a whole?
 11. What is your experience and understanding of how the event affected the faculty?
Individually? as a whole?

12. What is your experience and understanding of how the event affected parents/families? Individually? as a whole?
13. What is your experience and understanding of how the event affected other community members? Individually? as a whole?
14. As you reflect back over the years since then, how do you believe you were impacted by the event? What is different about yourself? Your life? As a consequence.
15. What specific changes, if any, have you noticed, or did you notice in your ability to get along with others as a result of the event? In what ways has the event impacted your relationships?
16. What was your school's plan, both immediate and long-term, for a response to school shootings?
17. As you experienced this (refer to answer above), how well did this work for you?
 - a. Discuss your assessment of effectiveness/comprehensiveness.
 - b. What do you understand resilience building to be? How have you seen that happen? Discuss what part of your school's response to school shootings (answer to question 8) are specific to resilience building?
18. How does this (the above answer) compare to what you know about other schools' responses to these types of events?
19. What do you believe are some ways schools can intervene/respond after a school shooting?

20. What are your thoughts on public schools engaging in any type of intervention (e.g., counseling services, community support, spiritual support, etc.) following these types of events?
21. What barriers may/would prevent you or your school from implementing intervention following a school shooting?
22. What incentives may encourage you or your school to implement intervention following a school shooting?
23. Who or what persons do you feel should be involved in administering/facilitating trauma intervention following a school shooting?
24. What else would you like for me to understand both about what happened and about lessons learned for the future, particularly with respect to helping survivors?
25. What else should I have asked you today?

APPENDIX B

Public School Trauma Support Assessment

Please read each statement carefully and indicate your level of agreement with each statement in regard to your current experience with U.S. public schools and/or school shootings.

The following words are bolded and marked by an asterisk (*) wherever they appear in the questionnaire. Please use these definitions as you respond.

School shooting* - a form of mass shooting involving an armed attack on an education institution, such as a school which includes incidents where students and/or adults are the perpetrators

Violence* – actual, attempted, witnessed or threatened fight or assault.

Perceived Support	Level of Agreement				
	Strongly Disagree	Disagree	Neutral /Not Sure	Agree	Strongly Agree
My school is equipped to manage trauma following a school shooting*	SD	D	N	A	SA
My school is equipped to be responsive to community needs following a school shooting*	SD	D	N	A	SA
My school is equipped to be responsive to individual's needs within the school following a school shooting*	SD	D	N	A	SA
My school has a written plan that describes procedures to be performed in the event of a school shooting*	SD	D	N	A	SA
My school has a plan that describes trauma intervention strategies that can be used following a school shooting*	SD	D	N	A	SA
My school has had drills on the use of emergency	SD	D	N	A	SA

procedures for school shootings*					
My school makes efforts to reduce or prevent school shootings*	SD	D	N	A	SA
My school has a formal program intended to prevent or reduce school shootings*	SD	D	N	A	SA
My school has a team or formal group of persons to identify students who might be a potential risk for violence* or harmful behaviors (towards themselves or others)	SD	D	N	A	SA
My school has a sworn law enforcement officer (including school resource officers) on campus daily.	SD	D	N	A	SA
My school engages in programs, formal or informal, that encourage healthy conflict resolution in students	SD	D	N	A	SA
My school engages in programs, formal or informal, that help build resiliency skills in students	SD	D	N	A	SA
There are resources available to me to manage my personal trauma in the event of a school shooting*	SD	D	N	A	SA
My school has made me aware of where I can find or access resources for managing trauma after experiencing a school shooting*	SD	D	N	A	SA
I would have access to a mental health professional on campus at my school following a school shooting*	SD	D	N	A	SA
Trauma support interventions are extended to teachers and	SD	D	N	A	SA

other public school faculty/staff members following a school shooting*					
My school uses effective methods to reduce trauma symptoms in staff members following a school shooting*	SD	D	N	A	SA
I have received the tools/training I need from my school to assist students in handling the effects of experiencing a school shooting*	SD	D	N	A	SA
Students would have access to a mental health professional on campus at my school following a school shooting*	SD	D	N	A	SA
Student would have access to a mental health professional off-campus through my school following a school shooting*	SD	D	N	A	SA
My school has a mental health counselor on campus daily for students.	SD	D	N	A	SA
My school uses effective methods to reduce trauma symptoms in students following a school shooting*	SD	D	N	A	SA
There are factors that get in the way of my school effectively supporting everyone after a school shooting*	SD	D	N	A	SA
My school provides enough trauma intervention after a school shooting*	SD	D	N	A	SA
I am aware of school shooting* survivors who have experienced mental health-related crises following the shooting.	SD	D	N	A	SA

<i>If you have experienced a school shooting*, please answer the following:</i>					
<i>In the past month, have you...</i>					
Had nightmares about the event(s) or thought about the event(s) when you did not want to?	Yes				No
Tried hard not to think about the event(s) or went out of your way to avoid situations that reminded you of the event(s)?	Yes				No
Been constantly on guard, watchful, or easily startled?	Yes				No
Felt numb or detached from people, activities, or your surroundings?	Yes				No
Felt guilty or unable to stop blaming yourself or others for the event(s) or any problems the event may have caused?	Yes				No

1. Please use this space share any strategies that your school uses to reduce trauma symptoms in students or teachers who have experienced school shootings or any other comments regarding the survey topic?

Demographic and Background Information

1. What is your gender? Check one response.

- ☐ Female
☐ Male
☐ Other (Please specify): _____

2. What is your age? _____

3. Identify employment status:

- ☐ Full-time employed by a public school in the U.S.
☐ Part-time employed by a public school in the U.S.
☐ Retired from a public school in the U.S.

4. What is your race/ethnicity? Check all that apply.

- ☐ Caucasian

- ☐ Black/African American
 - ☐ Native American
 - ☐ Hispanic/Latino
 - ☐ Non-Hispanic
 - ☐ Other (Please specify): _____
5. What is your job title/position? Check one response.
- ☐ Teacher
 - ☐ Guidance/School Counselor
 - ☐ Administrator
 - ☐ Other (Please Specify): _____
6. Number of years employed in public schools: _____
7. Number of public schools you have been employed at: _____
8. Number of years working at current school: _____
9. Which of the following grades are offered in your current school? Please check all that apply.
- ☐ Kindergarten
 - ☐ 1st
 - ☐ 2nd
 - ☐ 3rd
 - ☐ 4th
 - ☐ 5th
 - ☐ 6th
 - ☐ 7th
 - ☐ 8th
 - ☐ 9th
 - ☐ 10th
 - ☐ 11th
 - ☐ 12th
10. In what region of the U.S. is the school you currently work for?
- ☐ Northeast
 - ☐ Midwest
 - ☐ South
 - ☐ West
11. What is the highest degree or level of school you have completed? (If you're currently enrolled in school, please indicate the highest degree you have *received*.)
- ☐ Less than a high school diploma
 - ☐ High school degree or equivalent (e.g. GED)
 - ☐ Some college, no degree
 - ☐ Associate degree (e.g. AA, AS)

- ☐ Bachelor's degree (e.g. BA, BS)
- ☐ Master's degree (e.g. MA, MS, MEd)
- ☐ Doctorate (e.g. MD, DDS, PhD, EdD)

APPENDIX C

Non-Response Survey

1. What position do you hold at the school you currently work for?
 - ☐ Teacher
 - ☐ Guidance Counselor
 - ☐ School Administrator
 - ☐ Other: _____
2. Please indicate why you did not respond to the study about public school preparedness for school-based traumatic events. Check all that apply.
 - ☐ Lack of Time
 - ☐ Ineligible for the study (i.e., not a teacher, guidance counselor or administrator)
 - ☐ Currently on Leave
 - ☐ Concerns about the study topic

Other (please specify): _____

REFERENCES

- Afifi, T. D., Merrill, A. F., Davis, S. (2016). The theory of resilience and relational load. *Personal Relationships*, 23, 663-683. doi: 10.1111/pere.12159
- Alexander, B. & Harris, H. (2019). *Public school preparedness for school shootings: A phenomenological overview of school leader perspectives*. Manuscript submitted for publication.
- Alexander, J. C. (2012). *Trauma: A social theory*. Cambridge: Polity Press.
- Allen, M., Burt, K., Bryan, E., Carter, D., Orsi, R., & Durkan, L. (2002). School counselors' preparation for and participation in crisis intervention. *Professional School Counseling*, 6, 96-102.
- Altmaier, E. M. (2013). Through a glass darkly: Personal reflections on the role of meaning in response to trauma. *Counselling Psychology Quarterly*, 26, 106-113. doi: 10.1080/09515070.2012.728760
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental health disorders* (5th ed.). Arlington, VA: Author.
- Anderson-Ketchmark, C. & Alvarez, M. E. (2010). The heart of learning and teaching: An online resource. *Children & Schools*, 32, p. 190-191. doi: 10.1093/cs/32/.3.190
- Balbo, M., Cavallo, F. & Fernandez, I. (2019). Integrating EMDR in psychotherapy. *Journal of Psychotherapy Integration*, 29, 23-31. doi: 10.1037/int0000136
- Bang, J. (2009). Nothingness and the human umwelt: A cultural-ecological approach to meaning. *Integrative Psychological & Behavioral Science*, 43, 374-392. doi: 10.1007/s12124-009-9101-3
- Barrett, D. (2014, September 24). Mass Shootings on the Rise, FBI Says. *Wall Street Journal*. Retrieved on May 22, 2018 from <http://www.wsj.com/articles/mass-shootings-on-the-rise-fbi-says-1411574475>
- Beck, J. G., Reich, C. M., Woodward, M. J., Olsen, S. A., Jones, J. M., & Patton, S. C. (2015). How do negative emotions relate to dysfunctional posttrauma cognitions? An examination of interpersonal trauma survivors. *Psychological Trauma: Theory, Research, Practice, and Policy*, 7(1), 3–10. doi: 10.1037/a0032716

- Bell, C. H. & Robinson, E. H. (2013). Shared trauma in counseling: Information and implications for counselors. *Journal of Mental Health Counseling*, 35, 310-323.
- Blad, E. (2018). Do schools' active shooter drills prepare or frighten? *Education Digest*, 83, 4-8.
- Benard, B. (Ed.). (2004). *Resiliency: What we have learned*. San Francisco, CA: WestEd
- Bergland, C. (2013). The neuroscience of Post-Traumatic Stress Disorder. Psychology Today. Retrieved on July 22, 2018 from <https://www.psychologytoday.com/us/blog/the-athletes-way/201311/the-neuroscience-post-traumatic-stress-disorder>
- Blad, E. (2018). Do schools' active shooter drills prepare or frighten? *Education Digest*, 83, 4-8.
- Boelen, P. A., Reijntjes, A., Djelantik, M. J., & Smid, G.E. (2016). Prolonged grief and depression after unnatural loss: Latent class analyses and cognitive correlates. *Psychiatry Research*, 240, 38-363. doi: 10.1016/j.psychres.2016.04.012
- Brunzell, T., Stokes, H., & Waters, L. (2019). Shifting teacher practice in trauma-affected classrooms: Practice pedagogy strategies within a trauma-informed positive education model. *School Mental Health: A Multidisciplinary Research and Practice Journal*, p.1-15, doi: 10.1007/s12310-018-09308-8
- Brymer, M., Jacobs, A., Layne, C., Pynoos, R., Ruzek, J., Steinberg, A.,... Watson, P. (2006). *Psychological First Aid: Field operations guide* (2nd ed.). Los Angeles, CA: National Child Traumatic Stress Network and National Center for PTSD.
- Cann, A., Calhoun, L. G., Tedeschi, R. G., Kimer, R. P., Gil-Rivas, V., Vishnesvsky, T., & Danhauer, S. C. (2010). The core beliefs inventory: A brief measure of disruption in the assumptive world. *Anxiety, Stress, & Coping*, 23(1), 19-34. doi: 10.1080/10615800802573013
- Carbajal, S. F. (2018) Trauma-focused interventions: A clinical practice analysis. Practitioner Scholar: *Journal of Counseling & Professional Psychology*, 7, 19-33.
- Cavanaugh, B. (2016). Trauma-informed classrooms and schools. *Beyond Behavior*, 25, p. 41-46. doi: 10.1177/107429561602500206
- Centers for Disease Control and Prevention. (2016). *Understanding school violence*. National Center for Injury Prevention and Control, Division of Violence Prevention. Retrieved from <https://www.cdc.gov/violenceprevention/pdf/schoolviolence-factsheet.pdf>

- Centers for Disease Control and Prevention. (2017, October 20). Expediting the federal grant process with an administrative partner. Retrieved from <https://www.cdc.gov/publichealthgateway/grantsfunding/expediting.html>
- Center for Homeland Defense and Security. (2019). K-12 school shooting database. Retrieved from <https://www.chds.us/ssdb/incidents-by-year/>
- Chrusciel, M. M., Wolfe, S., Hansen, J. A., Rojeck, J. J., Kaminski, R. (2015). Law enforcement executive and principal perspectives on school safety measures. *Policing: An International Journal*, 38, 24, 39. doi: 10.1108/PIJPSM-11-2014-0115
- Cleveland, R. E. & Sink, C. A. (2018). Student happiness, school climate, and school improvement plans: Implications for school counseling practice. *Professional School Counseling*, 21, 1-10.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Cohen, J.A., Mannarino, A. P., & Knudsen, K. (2004). Treating childhood traumatic grief: A pilot study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 43 (10), 1225-1233. doi: 10.1097/01.chi.0000135620.15522.38
- Cohen, J. A. & Mannarino, A. P. (2008). Trauma-focused cognitive behavioural therapy for children and parents. *Child and Adolescent Mental Health*, 12, 158-162. doi: 10.1111/j.1475-3588.2008.00502.x
- Cook, E. C., Chaplin, T. M., Sinha, R., Tebes, J. K., & Mayes, L. C. (2012). The stress response and adolescents' adjustment: The impact of child maltreatment. *Journal of Youth and Adolescence*, 41(8), 1067–1077. doi: 10.1007/s10964-012-9746-y
- Corbett, L. & Milton, M. (2011). Existential therapy: A useful approach to trauma? *Counseling Psychology Review*, 26, 62-74.
- Coughlan, S. (2018, December 12). 2018 Worst year for US school shootings. BBC News. Retrieved from <https://www.bbc.com/news/business-46507514>
- Cox, J. W. & Rich, S. (2018, March). Scarred by school shootings. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/graphics/2018/local/us-school-shootings-history/>
- Craig, S. (2017). *Trauma-sensitive schools for the adolescent years: Promoting resiliency and healing, grades 6-12*. New York, NY: Teachers College Press.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications.

- Dauber, S., Lotsos, K., & Pulido, M. (2015). Treatment of complex trauma on the front lines: A preliminary look at child outcomes in an agency sample. *Child & Adolescent Social Work Journal*, 32(6), 529–543. doi: 10.1007/s10560-015-0393-5
- de Villiers, M., & van den Berg, H. (2012). The implementation and evaluation of a resiliency programme for children. *South African Journal of Psychology*, 42(1), 93–102. doi: 10.1177/008124631204200110
- Dezelic, M. (2014). A comprehensive meaning-centered existential therapeutic approach. Retrieved on July 10, 2018 from <https://www.drmariedezelic.com/single-post/2014/01/07/A-COMPREHENSIVE-MEANING-CENTERED-EXISTENTIAL-THERAPEUTIC-APPROACH>
- Duplechain, R., & Morris, R. (2014). School violence: Reported school shootings and making schools safer. *Education*, 135(2), 145–150.
- Du Toit, K. (2017). Existential contributions to the problematization of trauma: An expression of the bewildering ambiguity of human existence. *Existential Analysis*, 28, 166-175.
- Dyregrov, A. (1997). *Supporting traumatized children and teenagers: A guide to providing understanding and help*. Philadelphia, PA: Jessica Kingsley Publishers.
- Email List US. (2017). Marketing email list. Retrieved from <https://www.emallistus.com/>
- Evans, A. & Coccoma, P. (2014). *Trauma-informed care: How neuroscience influences practice*. New York: NY: Routledge.
- Evans, S. W., Stephan, S. H., & Sugai, G. (2014). Advancing research in school mental health: Introduction of a special issue on key issues in research. *School Mental Health*, 6, 63-67.
- Feder, L. (2007). Bullying as a public health issue. *International Journal of Offender Therapy and Comparative Criminology*, 51(5), 491-494. doi: 10.1177/0306624X07308081
- Fein, A. H., Carlisle, C.S., & Isaacson, N. S. (2008). School shootings and counselor leadership: Four lessons from the field. *Professional School Counseling*, 11, 246-252.
- Finkelhor, D., Turner, H. A., Shattuck, A., & Hamby, S. L. (2013). Violence, crime, and abuse exposure in a national sample of children and youth: An update. *JAMA Pediatrics*, 16, 614-621. doi:10.1001/jamapediatrics.2013.42

- Foa, E. B., McLean, C. P., Zang, Y., Rosenfield, D., Yadin, E., Yarvis, J.S....Peterson, A. L. (2017). Effect of prolonged exposure therapy delivered over 2 weeks vs 8 weeks vs present-centered therapy on PTSD symptom severity in military personnel: A randomized clinical trial. *Journal of the American Medical Association*, 31, 354-364. doi: 10.1001/jama.2017.21242
- Fox, J. A. (2018). School shootings are not the new normal, despite statistics that stretch the truth. *USA Today*. Retrieved from <https://owl.english.purdue.edu/owl/resource/560/10/>
- Fox, J. A. & DeLateur, M. J. (2014). Mass shootings in America: Moving beyond Newtown. *Homicide Studies*, 18, 125-145. doi: 10.1177/1088767913510297
- Frankl, V. (1986). *The Doctor and the soul: From psychotherapy to logotherapy*. New York, NY: Vintage Books.
- Frankl, V. (1988). *The will to meaning: Foundations and applications of Logotherapy*. New York, NY: Penguin Group Publishing.
- Gabarino, J., Bradshaw, C. P. & Vorrasi, J. A. (2002). Mitigating the effects of gun violence on children and youth. *Children, Youth, and Gun Violence*, 12, 72-85. doi: 10.2307/1602739
- Gelkopf, M., & Berger, R. (2009). A school-based, teacher-mediated prevention program (ERASE-Stress) for reducing terror-related traumatic reactions in Israeli youth: A quasi-randomized controlled trial. *Journal of Child Psychology and Psychiatry*, 50(8), 962–971. doi: 10.1111/j.1469-7610.2008.02021.x
- Grabow, C. & Rose, L. (2018, May 21). The US has had 57 times as many school shootings as the other major industrialized nations combined. *CNN*. Retrieved from https://www.cnn.com/2018/05/21/us/school-shooting-us-versus-world-trnd/index.html?fbclid=IwAR2vpuYGWcE60CS7cAR3qoUljiDEFVQTVX0CoSsxnVG2K5_OdsHhh8Cvtek
- Greenberg, M. T., Domitrovich, C., & Bumbarger, B. (2001). The prevention of mental disorders in school aged-children: Current state of the field. *Prevention & Treatment*, 4, 1-62.
- Gun Violence Archive. (2012). General Methodology. Retrieved from <https://www.gunviolencearchive.org/methodology>
- Gusich, G. (2012). A phenomenology of emotional trauma: Around and about the things themselves. *Human Studies*, 35, 505-518. doi: 10.1007/s10746-012-9247-8

- Hahn, R., Fuqua-Whitley, D., Wethington, H., Lowy, J., Crosby, A., Fullilove, M.,...Dahlberg, L. (2007). Effectiveness of universal school-based programs to prevent violent and aggressive behavior: A systematic review. *American Journal of Preventive Medicine*, 33, S114-S129. doi: 10.1016/j.amepre.2007.04.012
- Han, S. S., & Weiss, B. (2005). Sustainability of teacher implementation of school-based mental health programs. *Journal of Abnormal Child Psychology*, 33, 665-679.
- Hansel, T. C., Osofsky, H. J., Osofsky, J. D., Costa, R. N., Kronenberg, M. E., & Selby, M. L. (2010). Attention to process and clinical outcomes of implementing a rural school-based trauma treatment program. *Journal of Traumatic Stress*, 23(6), p. 708-715. doi: 10.1002/jts.20595
- Henry, S. (2009). School violence beyond Columbine: A complex problem in need of an interdisciplinary analysis. *American Behavioral Scientist*, 52, 1246-1265. doi: 10.1177/0002764209332544
- Hernandez, T. J. & Seem, S. R. (2004). A safe school climate: A systematic approach and the school counselor. *Professional School Counseling*, 7, 256-262.
- Howard, J. (2018, February 23). School shooting survivor: “There’s so many of us now.” *CNN*. Retrieved on July 30, 2018 from <https://www.cnn.com/2018/02/23/health/school-shooting-survivors-profile/index.html>
- Hudson, P. E., Windham, R. C., Hooper, L. M. (2005). Characteristics of school violence and the value of family-school therapeutic alliances. *Journal of School Violence*, 4, 133-146. doi: 10.1300/J202v04n02_08
- Hurt, H., Malmud, E., Brodsky, N. L., & Gianneta, J. (2001). Exposure to violence: Psychological and academic correlates in child witnesses. *Archives of Pediatrics & Adolescent Medicine*, 155, 1351-1356.
- Jackson, M., Diliberti, M., Kemp, J., Hummel, S., Cox, C., Gbondo-Tugbawa, K.,...Hansen, R. (2018). *2015-2016 School Survey on Crime and Safety (SSOCS): Public-Use Data File User’s Manual* (NCES 2018-107). U.S. Department of Education, National Center for Education Statistics. Washington, DC. Retrieved from <http://nces.ed.gov/pubsearch>
- Jain, S., Buka, S. L., Subramanian, S. V., & Molnar, B. E. (2012). Protective factors for youth exposed to violence: Role of developmental assets in building emotional resilience. *Youth Violence and Juvenile Justice*, 10, 107-129. doi: 10.1177/1541204011424735

- Jamieson, A. (2019, February 23). This is how America tries to protect students from mass shooters. *BuzzFeed*. Retrieved from <https://www.buzzfeednews.com/article/amberjamieson/america-schools-students-defense-guns-shooters-parkland>
- Jimerson, S. R., Brock, S. E., & Pletcher, S. W. (2005). An integrated model of school crisis preparedness and intervention: A shared foundation to facilitate international crisis intervention. *School Psychology International*, 26, 275-296. doi: 10.1177/0143034305055974
- Joseph, S. (2010). Working with psychological trauma. *Healthcare Counseling & Psychotherapy Journal*, 10, 4-5.
- Katsiyannis, A., Whitford, D. K., & Ennis, R.P. (2018). Historical examination of United States international mass school shootings in the 20th and 21st centuries: Implications for students, schools, and society. *Journal of Child and Family Studies*, 27, 2562-2573. doi: 10.1007/s10826-018-1096-2
- Kupchik, A. (2019, March 11). The impact of school policing. Retrieved from <https://www.endzerotolerance.org/single-post/2019/03/11/Research-on-the-Impact-of-School-Policing>
- La Greca, A. M., Silverman, W. K., Vernberg, E. M., & Prinstein, M. J. (1996). Symptoms of posttraumatic stress in children after Hurricane Andrew: a prospective study. *Journal of Counseling and Clinical Psychology*, 64, 712-723.
- La Greca, A. M., Silverman, W. K., Lai, B., & Jaccard, J. (2010, October 11). Hurricane related exposure experiences and stressors, other life events, and social support: concurrent and prospective impact on children's persistent posttraumatic stress symptoms. *Journal of Consulting and Clinical Psychology*, Advance online publication. doi:10.1037
- Lai, B. S., Osborne, M. C., Lee, N., Self-Brown, S., Esnard, A-M., Kelley, M. L. (2018). Trauma-informed schools: Child disaster exposure, community violence, and somatic symptoms. *Journal of Affective Disorders*, 238, 586-592. doi: 10.1016/j.jad.2018.05.062
- Lamb-Sinclair, A. (2018, February 22). Teaching while afraid: In an era of school shootings, educators are carrying burdens bigger than they ever imagined. *The Atlantic*. Retrieved from <https://www.theatlantic.com/education/archive/2018/02/teaching-while-afraid/553931/>
- Landwehr, M. (2017). Meaning centered existential analysis: Philosophy as psychotherapy in the work of Viktor E. Frank. *Journal of Austrian Studies*, 50, 177-179.

- Langley, A. K., Nadeem, E., Kataoka, S. H., Stein, B. D. & Jaycox, L. H. (2010). Evidence-based mental health programs in schools: Barriers and facilitators of successful implementation. *School Mental Health*, 2, 105-113. doi: 10.1007/s12310-010-9038-1
- Lapan, R. T., Gysbers, N. C., & Sun, Y. (1997). The impact of more fully implemented guidance programs on the school experiences of high school students: A statewide evaluation study. *Journal of Counseling and Development*, 75, 292-302.
- Larson, R. W. (2000). Toward a psychology of positive youth development. *American Psychologist*, 55, 170–183.
- Lee, J. H. (2013). School shootings in the U.S. public schools: Analysis through the eyes of an educator. *Review of Higher Education and Self Learning*, 6, 88-120.
- Lee, J-S. (2019). Perceived support functions as a resilience in buffering the impact of trauma exposure on PTSD symptoms via intrusive rumination and entrapment in firefighters. *PLoS One*, 14, e0220454. doi: 10.1371/journal.pone.0220454
- LeFevre, P. (1966). *Understandings of man*. Philadelphia, PA: Westminster Press.
- Lerner, M., Volpe, J., & Lindell, B. (2003). *A practical guide for crisis response in our schools: Acute traumatic stress management, empowering educators during traumatic events*. Commack, NY: American Academy of Experts in Traumatic Stress.
- Levine, P. A. (2015). *Trauma and memory: Brain and body in a search for the living past: A practical guide for understanding and working with traumatic memory*. Berkeley, CA: North Atlantic Books.
- Lichtenstein, R., Schonfeld, D. J., & Kline, M. (1994). School crisis response: Expecting the unexpected. *Educational Leadership*, 52, 79-83.
- Listenbee, R. L., Torre, J., Boyle, G. S. J., Cooper, S. W., Deer, S., Durfee, D. T., & Taguba, A. (2012). *Report of the attorney general's national task force on children exposed to violence*. U. S. Department of Justice: Washington, DC.
- Lloyd, J. (2000). Change in tactics: Police trade talk for rapid response. *Christian Science Monitor*, 92, 132.
- Love, R. A. & Cobb, N. (2012). Developing schools' capacities to respond to community crisis: The Tennessee initiative. *Journal of Child and Adolescent Psychiatric Nursing*, 28, 158-163. doi: 10.1111/j.1744-6171.2012.00339.x
- Lovre, C. (2003). Collaborating with the community. *ASCA School Counselor*, 41, 8-11.

- Luthar, S. S., & Zelano, L. B. (2003). Research on resilience: An integrative review. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 510–549). New York, NY: Cambridge University Press.
- Maio, J. & Jorgensen-Wagers, K. (2018). Efficacy of group cognitive processing therapy in an intensive outpatient trauma program for active duty service members with posttraumatic stress disorder. *Best Practices in Mental Health, 14*, 64-81.
- Mancini, A. D., Littleton, H. L., & Grills, A. E. (2016). Can people benefit from acute stress? Social support, psychological improvement, and resilience after the Virginia Tech campus shootings. *Clinical Psychological Science, 4*(3), 401–417. doi: 10.1177/2167702615601001
- Martin, S. L., Ashely, O. S., White, L., Axelson, S., Clark, M., & Burrus, B. (2017). Incorporating trauma-informed care into school-based programs. *Journal of School Health, 87*, 958-967. doi: 10.1111/josh.12568
- Mathews, T., Dempsey, M., & Overstreet, S. (2009). Effects of exposure to community violence on school functioning: The mediating role of posttraumatic stress symptoms. *Behaviour Research and Therapy, 47*, 586-591.
- Mazzei, P. & Jordan, M. (2019, March 28). You can't put it behind you: School shootings leave long trail of trauma. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/03/28/us/parkland-shooting-suicides-newtown-mental-health.html>
- McConnico, N., Boynton-Jarrett, R., Bailey, C., & Nandi, M. (2016). A framework for trauma-sensitive schools: Infusing trauma-informed practices into early childhood education systems. *Zero to Three, 35*, 36-44.
- McKinnon, J. (1984). Brief psychotherapy of the Vietnam combat neuroses. In H.J. Schwartz (Ed.), *Psychotherapy of the combat veteran* (p. 125-152). New York, NY: Spectrum Publications.
- McLaughlin, K. A., Green, J. G., Gruber, M. J., Sampson, N.A., Zaslavsky, A. M., & Kessler, R. C. (2012). Childhood adversities and first onset of psychiatric disorders in a national sample of US adolescents. *Archives of General Psychiatry, 69*, 1151-1160.
- Meichenbaum, D. (2012). *Roadmap to resilience: A guide for military, trauma victims and their families*. Waterloo, ON, Canada: Institute Press.
- Melhem, N. M., Porta, G., Payne, M.W., Brent, D.A. (2013). Identifying prolonged grief reactions in children: Dimensional and diagnostic approaches. *Journal of the American Academy of Child & Adolescent Psychiatry, 52* (6), 599-607.

- Mendelson, T., Tandon, S. D., O'Brennan, L., Leaf, P. J., & Ialongo, N. S. (2015). Brief report: Moving prevention into schools: The impact of a trauma-informed school-based intervention. *Journal of Adolescence*, 43, 142–147. doi: 10.1016/j.adolescence.2015.05.017
- Miller, H. (2016, December 14). There have been over 200 school shooting incidents since the sandy hook massacre. *The Huffington Post*. Retrieved from www.huffingtonpost.com/entry/school-shootings-since-sandy-hook_us_58503d99e4b04c8e2bb232eb
- Mirabito, D. & Callahan, J. (2016). *School-based trauma-informed care for traumatic events: Clinical and organizational practice*. Chicago, IL: Lyceum Books.
- Mongan, P., Hatcher, S. S., & Maschi, T. (2009). Etiology of school shootings: Utilizing a purposive, non-impulsive model for social work practice. *Journal of Human Behavioral in Social Environment*, 19, 635-645. doi: 10.1080/10911350902910583
- Moore, K. W., & Varela, R. E. (2010). Correlates of long-term posttraumatic stress symptoms in children following Hurricane Katrina. *Child Psychiatry Human Development*, 41, 239-250. doi:10.1007/s10578-009-0165-6.
- Morgan, J.H. (2010). *Beginning with Freud: The classical schools of psychotherapy*. Lima, OH: Wyndham Hall Press.
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.
- Mutch, C. & Gawith, E. (2014). The New Zealand earthquakes and the role of schools in engaging children in emotional processing of disaster experiences. *Pastoral Care in Education*, 32, 54-67.
- Na, C. & Gottfredson, D. C. (2011). Police officers in schools: Effects on school crime and the processing of offending behaviors, *Justice Quarterly*.
- Nadeem, E., Jaycox, L., Kataoka, S., Langley, A. K., & Stein, B. (2011). Going to scale experiences implementing a school-based trauma intervention. *School Psychology Review*, 40, 549-568.
- Nader, K. & Muni, P. (2002). Individual crisis intervention. In S. E. Brock, P. J. Lazarus, & S. R. Jimerson (Eds.), *Best practices in school crisis prevention and intervention* (pp. 405-428). Bethesda, MD: National Association of School Psychologists.
- Nedzel, N. E. (2014). Concealed carry: The only way to discourage mass school shootings. *Academic Questions*, 27, 429-435. doi: 10.1007/s12129-014-9459-7

- National Center for Education Statistics (2016). Schools and Staffing Survey (SASS). Retrieved from <https://nces.ed.gov/surveys/sass/>
- National Center for Safe Supportive Learning Environments. (2019). *Roles*. Retrieved from <https://safesupportivelearning.ed.gov/training-technical-assistance/roles/schooldistrict-administrators>
- National Center for Trauma-Informed Care (NCTIC). (2015). *Trauma-informed approach and trauma-specific interventions*. Rockville, MD: Substance Abuse and Mental Health Services Administration. Retrieved from: <http://www.samhsa.gov/nctic/trauma-interventions>.
- National Child Traumatic Stress Network (2018). *School shootings and their effect on student mental health*. Retrieved on July 31, 2019 from <https://www.nctsn.org/what-is-child-trauma/trauma-types/terrorism-and-violence/school-shooting-resources>
- National Child Traumatic Stress Network. (2019). Creating trauma-informed systems. Retrieved from <https://www.nctsn.org/trauma-informed-care/creating-trauma-informed-systems>
- National Child Traumatic Stress Network, Schools Committee. (2017). *Creating, supporting, and sustaining trauma-informed schools: A system framework*. Los Angeles, CA and Durham, NC: National Center for Child Traumatic Stress.
- National Institute of Mental Health. (2001). Helping children and adolescents cope with violence and disasters. (NIH publication, no. 01-3519). Author. Retrieved from <http://www.nimh.nih.gov/health/publications/helping-children-and-adolescents-cope-with-violence-and-disasters-partents/index.shtml>
- Nedzel, N. E. (2014). Concealed carry: The only way to discourage mass school shootings. *Academic Questions*, 27, 429-435. doi: 10.1007/s12129-014-9459-7
- Novotney, A. (2018, September). What happens to the survivors. *Monitor on Psychology*, 49(8). Retrieved from <https://www.apa.org/monitor/2018/09/survivors>
- Office of the Texas Governor. (2018, August 30). Governor Abbott releases school safety action plan summary [Press release]. Retrieved from <https://gov.texas.gov/news/post/governor-abbott-releases-school-safety-action-plan-summary>
- Openshaw, L. L. (2011). School-based support groups for traumatized students. *School Psychology International*, 32, 163-178. doi: 10.1177/0143034311400830
- Palmer, J., Kralik, J., & Erwin, B. (2018). Firearms in schools. *State Legislatures*, 44, 7.

- Paradice, D. (2017). An analysis of U.S. school shooting data (1840-2015). *Education*, 138, 135-144.
- Perfect, M., Turley, M., Carlson, J., Yohanna, J., & Saint Gilles, M. (2016). School-related outcomes of traumatic event exposure and traumatic stress symptoms in students: A systematic review of research from 1990 to 2015. *School Mental Health*, 8, 7-43, doi: 10.1007/s12310-016-9175-2
- Purvis, K. B., Cross, D. R., Dansereau, D. F., & Parris, S. R. (2013). Trust-based relational intervention (TBRI): A systematic approach to complex developmental trauma. *Child & Youth Services*, 34, 360-386. doi: 10.1080/0145935X.2013.859906
- QSR International Pty Ltd. (2018). NVivo Version 12 [computer software]. Retrieved from <https://www.qsrinternational.com/nvivo/nvivo-products/nvivo-12-plus>
- Reinbergs, E. J. & Fefer, S. A. (2018). Addressing trauma in schools: Multi-tiered service delivery options for practitioners. *Psychology in Schools*, 55, 250-263.
- Reitinger, C. (2015). Viktor Frankl's logotherapy from a philosophical point of view. *Journal of the Society for Existential Analysis*, 26, 344-357.
- Renshaw, T. L., Hammons, K. N., & Roberson, A. J. (2016). General versus specific methods for classifying U.S. students' bullying involvement: Investigating classification agreement, prevalence rates, and concurrent validity. *School Psychology Review*, 45, p.400-416.
- Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., Jones, J., ... Udry, J. R. (1997). Protecting adolescents from harm: Findings from the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association*, 278, 823-832.
- Reuters (2018). Columbine, Sandy Hook, and Virginia Tech: Major school shootings in the United States in the last 20 years. *Daily Mail News*. Retrieved from <http://www.dailymail.co.uk/news/article-5392845/Major-school-shootings-United-States.html>
- Richmond, E. (2018). Parents' fear for kids' safety in schools reaches a two-decade high. U.S. News & World Report. Retrieved from <https://www.usnews.com/news/education-news/articles/2018-07-17/parents-fear-for-kids-safety-in-schools-reaches-two-decade-high>
- Riley, P. & McDaniel, J. (2000). School violence, prevention, intervention, and crisis response. *Professional School Counseling*, 4, 120-125.

- Ritchie, E. C. (2003). Mass violence and early intervention: Best practice guidelines. *Primary Psychiatry*, 10, 43-48.
- Roberts, A. R. (2006). Applying Roberts' triple abcd model in the aftermath of crisis-inducing and trauma-inducing community disasters. *International Journal of Emergency Mental Health*, 8, p. 175, 182.
- Rubin, A. & Babbie, E. R. (2014). Research methods for social work (8th ed). Belmont: Brooks/Cole Publishing
- Sabia, J. J. & Bass, B. (2017). Do anti-bullying laws work? New evidence on school safety and youth violence. *Journal of Population Economics*, 30, 473-502. doi: 10.1007/s00148-016-0622-z
- Saldaña, J. (2016). *The coding manual for qualitative researchers*. Thousand Oaks, CA: SAGE Publications.
- Salloum, A. & Overstreet, S. (2012). Grief and trauma intervention for children after disaster: Exploring coping skills versus trauma narration. *Behaviour Research and Therapy*, 50, 19-179. doi: 10.1016/j.brat.2012.01.001
- Saltini, A., Rebecchi, D., Callerame, C., Fernandez, I., Bergonzini, E. & Starace, R. (2018). Early eye movement desensitization and reprocessing (EMDR) intervention in a disaster mental health care context. *Psychology, Health & Medicine*, 23, 285-294. doi: 10.1080/13548506.2017.1344255
- Saltzman, W. R., Pynoos, R. S., Layne, C. M., Steinberg, A. M., & Aisenberg, E. (2001). Trauma- and grief focused intervention for adolescents exposed to community violence: Results of a school-based screening and group treatment protocol. *Group Dynamics: Theory, Research, and Practice*, 5, 291-303.
- Saltzman, W. R., Pynoos, R. S., Layne, C. M., Steinberg, A. M., & Aisenberg, E. (2003). School-based trauma and grief intervention for adolescents. *Prevention Researcher*, 10, 8-11.
- Saunders, B. E. & Adams, Z. W. (2014). Epidemiology of traumatic experiences in childhood. *Child and Adolescent Psychiatric Clinics of North America*, 23, 167-184. doi: 10.1016/j.chc.2013.12.003
- School shootings and their effect on student mental health. (2018). [Special Report]. *Curriculum Review*, 58(4), 8.
- Schnyder, U., Ehlers, A., Elbert, T., Foa, E. B., Gersons, B. P. R., ... Cloitre, M. (2015). Psychotherapies for PTSD: What do they have in common? *European Journal of Psychotraumatology*, 6, 383-387. doi: 10.3402/ejpt.v6.28186

- Seidman, I. (2012). *Interviewing as qualitative research: A guide for researchers in education* (4th ed.) New York, NY: Teachers College Press.
- Shapiro, F. (2014). EMDR therapy humanitarian assistance programs: Treating the psychological, physical, and societal effects of adverse experiences worldwide. *Journal of EMDR Practice and Research*, 8, 181-186. doi: 10.1891/1933-3196.8.4.181
- Shen, Y. & Sink, C. (2002). Helping elementary-age children cope with disasters. *Professional School Counseling*, 5, 322-330.
- Siegel, D. H. (2015). Trauma-informed school social work. *Social Work Today*, 15, 16.
- Spuij, M., van Londen-Huiberts, A., & Boelen, P.A. (2013). Cognitive-behavioral therapy for prolonged grief in children: Feasibility and multiple baseline study. *Cognitive and Behavioral Practice*, 20, 349-361
- Stallard, P. & Salter, E. (2003). Psychological debriefing with children and young people following traumatic events. *Clinical Child Psychology and Psychiatry*, 8, 445-457.
- Stroebe, W., Schut, H., & Stroebe, M. S. (2005). Grief work, disclosure, and counseling: Do they help the bereaved? *Clinical Psychology Review*, 25, 295-414. doi: 10.1016/j.cpt.2005.01.004
- Strom, I. F., Schultz, J. H., Wentzel-Larsen, T. & Dyb, G. (2016). School performance after experiencing trauma: A longitudinal study of school functioning in survivors of the Utoya shootings in 2011. *European Journal of Pscyhotraumatology*, 7, 1-10. doi: 10.3402/ejpt.v7.31359
- Suomalainen, L., Haravuori, H., Berg, N., Kiviruusu, O., Marttunen, M. (2011). A controlled follow-up study of adolescents exposed to a school shooting – psychological consequences after four months. *European Psychiatry*, 26, 490-497. doi: 10.1016/j.eurpsy.2010.07.007
- Tate, K. A., Williams, C., Harden, D. (2013). Finding purpose in pain: Using logotherapy as a method for addressing survivor guilt in first-generation college students. *Journal of College Counseling*, 16, 79-92. doi: 10.1002/j.2161-1882.2013.00028.x
- Teasley, M. L. (2018). School shootings and the need for more school-based mental health services. *Children & Schools*, 40, 131-134. doi: 10.093/cs/cdy015
- Tedeschi, R. G., & Riffle, O. M. (2016). Posttraumatic growth and logotherapy: Finding meaning in trauma. *The International Forum for Logotherapy*, 39, 40-47.

- Thomas, M. S., Crosby, S. & Vanderhaar, J. (2019). Trauma-Informed practices in schools across two decades: An interdisciplinary review of research. *Review of Research in Education*, 43, 422-452. doi: 10.3102/0091732X18821123
- Thompson, T., & Rippey Massat, C. (2005). Experiences of violence, post-traumatic stress, academic achievement and behavior problems of urban African American children. *Child and Adolescent Social Work Journal*, 22, 367-393.
- Thompson, C. B. (2014). Our killing schools. *Society*, 51, 210-220. doi: 10.1007/s12115-014-9767-0
- Ting, L., Sanders, S., & Smith, P. L. (2002). The teachers' reactions to school violence scale: Psychometric properties and scale development. *Educational and Psychological Measurement*, 62, 1006-1019. doi: 10.1177/0013164402238087
- Tosone, C., Bialkin, L., Campbell, M., Charters, M., Gieri, K., Gross, S., ... Stefan, A. (2003). Shared trauma: Group reflections on the September 11th disaster. *Psychoanalytic Social Work*, 10(1), 57-77. doi: 10.1300/J032v10n01_06
- Tosone, C., Nuttman-Shwartz, O., & Stephens, T. (2012). Shared trauma: When the professional is personal, *Clinical Social Work Journal*, 40, 231-239. doi: 10.1007/s10615-012-0395-0
- Uffalussy, J. G. (2016, June 2). What it's like to survive a school shooting. *TeenVogue*. Retrieved on July 19, 2018 from <https://www.teenvogue.com/story/school-shooting-survivor-stories>
- Ujifusa, A. & Superville, D. R. (2018). School shootings reverberate on Capitol Hill. *Education Week*, 37, 18.
- U.S. Department of Education. (2006). *Lessons learned from school crisis and emergencies*. (The Emergency Response and Crisis Management Technical Assistance Center funded through the USDOE's Office of Safe and Drug-Free Schools), 1(2). Retrieved from http://rems.ed.gov/docs/CoordinatedResponseToMultipleDeaths_1102.pdf
- U. S. Department of Justice. (2013). A study of active shooter incidents in the United States between 2000 and 2013. Retrieved from <https://www.fbi.gov/file-repository/active-shooter-study-2000-2013-1.pdf/view>
- U.S. Government Accountability Office. (2007, June). *Emergency management: Most school districts have development emergency management plans, but would benefit from additional federal guidance*. Washington, DC.: Author. (GAO-07-609). Retrieved from <http://www.gao.gov/new.items/d07609.pdf>

- van Vliet, K. J., Foskett, A. J., Williams, J. L., Singhal, A., Dolcos, F., & Vohra, S. (2017). Impact of a mindfulness-based stress reduction program from the perspective of adolescents with serious mental health concerns. *Child and Adolescent Mental Health*, 22(1), 16–22. doi: 10.1111/camh.12170
- Vieselmeier, J., Holguin, J., & Mezulis, A. (2017). The role of resilience and gratitude in posttraumatic stress and growth following a campus shooting. *Psychological Trauma: Theory, Research, Practice, and Policy*, 9(1), 62–69. doi: 10.1037/tra0000149
- Werner, E. E., & Smith, R. S. (2001). *Journeys from childhood to midlife: Risk, resilience and recovery*. Ithaca, NY: Cornell University Press
- Wiest-Stevenson, C. & Lee, C. (2016). Trauma-Informed Schools. *Journal of Evidence-Informed Social Work*, 13, 498-503. doi: 10.1080/23761407.2016.1166855
- Wilson, S., J., & Lipsey, M. W. (2007). School-based interventions for aggressive and disruptive behavior: update of a meta-analysis. *American Journal of Preventive Medicine*, 33, S130-S143.
- Wingo, A. P., Wrenn, G., Pelletier, T., Gutman, A. R., Bradley, B., & Ressler, K. J. (2010). Moderating effects of resilience on depression in individuals with a history of childhood abuse or trauma exposure. *Journal of Affective Disorders*, 126(3), 411–414. doi: 10.1016/j.jad.2010.04.009
- Wisconsin Department of Public Instruction. (2018). *Trauma sensitive schools learning modules*. Retrieved from <https://dpi.wi.gov/sspw/mental-health/trauma/modules>
- Wittouck, C., Van Autreve, S., De Jaegere, E., Portzky, G., & van Heeringen, K. (2011). The prevention and treatment of complicated grief: A meta-analysis. *Clinical Psychology Review*, 31, 69-78. doi: 10.1016/j.cpr.2010.09.005
- Wolfe, E. & Walker, C. (2019, November 19). In 46 weeks this year, there have been 45 school shootings. CNN. Retrieved from <https://www.cnn.com/2019/11/15/us/2019-us-school-shootings-trnd/index.html>
- Yan, H. & Park, M. (2019, March 26). 1 week. 3 suicides. 1 tragic connection to school massacres. CNN. Retrieved from <https://www.cnn.com/2019/03/26/us/school-shootings-suicides/index.html>
- Yoder, M. (2008). Helping in the wake of disaster: A graduate student's perspective in the aftermath of the VT tragedy. *Traumatology*, 14(1), 25–31. doi: 10.1177/1534765607309941