THE EFFECT OF PREP[a]RE TRAINING ON SCHOOL PSYCHOLOGISTS' CRISIS-RELATED KNOWLEDGE AND SELF-EFFICACY

by

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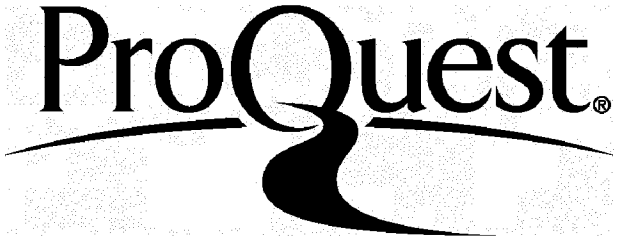

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ABSTRACT

This study expands on the research of Nickerson and Zhe (2004) to examine the influence of participation in PREP^{a}RE training on school psychologists' knowledge of crisis prevention and response techniques, as well as their skill at responding to differing crisis scenarios. 254 school psychologists from 34 states completed a survey assessing knowledge of and self-efficacy for crisis response. Results indicate that a significant relationship exists between participation in PREP^{a}RE training and crisis-related knowledge in the areas of prevention and intervention. Further, the perceived expertise level of the PREP^{a}RE presenter increased participants' crisis-related knowledge in the areas of prevention and intervention. Future research should look to confirm the generalization of the current data across state lines and use more specific demographic categories. Additionally, as the number of responses received representing the three types of PREP^{a}RE workshop participation also limited the current research, future studies may look to evaluate whether participation in the individual PREP^{a}RE workshops results in differential levels of crisis-related knowledge and self-efficacy.

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CHAPTER 1

INTRODUCTION

Every school has the legal and moral responsibility to safeguard the physical and psychological well-being of students and staff in the event of a crisis. Recent and continuing crises have made the need for schools to develop and rehearse comprehensive plans encompassing prevention, planning, response, and recovery an imperative. Schools need to have the capacity to respond to a range of crises, from an accidental injury (e.g., an arm broken during a physical education class) to more significant events such as a staff or student death, school shooting, community tragedy, natural disaster, health epidemic, or act of terrorism. Schools play a critical prevention and response role in how crises affect children; how schools respond to a crisis can influence the immediate and long-term effects on students and staff (Rossen & Cowan, 2013). Appropriate crisis planning and response can help build students' resilience, expedite a return to learning, and strengthen families and school communities.

Children spend a considerable portion of their formative years on school grounds. Thus, schools are the context within which they typically experience psychosocial and accidental situational crises, and where they learn how to resolve and cope with these negative situations (Brock, et. al., 2009; Cohen & Fish, 1993). The Sandy Hook Advisory Commission (2015) recognized that schools might offer the most realistic possibility for children to access mental health supports. Schools are responsible for creating positive school climates, preventing negative behaviors such as bullying and harassment, and being prepared to respond to potential threats such as weather emergencies, fires, and acts of violence. Effective crisis planning, prevention, response, and recovery capabilities are essential for schools to meet this responsibility (Cowan, Vaillancourt, Rossen, & Pollitt, 2013). Responding to a school-based

crisis is unique and requires specialized training and knowledge of schools, the learning process, mental health, and children's crisis reactions. As a result, crisis prevention and response is now often expected of school psychologists.

Nickerson and Zhe (2004) surveyed practicing school psychologists who were members of the National Association of School Psychologists (NASP) to determine their experiences and perceptions regarding school crisis preparedness, prevention, and intervention. Results indicated that school psychologists regularly encountered crisis situations. Respondents had the most direct experience with student–student physical assaults (56%), serious illness or injury of students (42%), unexpected student deaths (39%), suicide attempts (34%), and guns or other weapons at school (32%). Of participants whose schools used crisis response teams, school psychologists were least likely to have experience in development (41%) and evaluation (28%) efforts and most likely to have been involved in the implementation (78%) of prevention and intervention measures.

Though research such as this establishes that school psychologists are often confronted with the need to respond to crises, few school psychology graduate programs include a designated course in crisis-related issues (Allen et al., 2002). Although feedback from school-based mental health specialists suggests that recent graduates are receiving more preparation for crisis intervention than in the past, almost one-third continue to enter the profession with no formal course work or supervised experiences dedicated to crisis response (Allen et al., 2002). Effective in-service professional development opportunities are essential because training specific to crisis prevention, the impact of crises on children and youth, and facilitating recovery within the school context is of paramount importance. As expectations for school crisis response and preparedness continue to increase, "educators must further their ability to consciously reflect

on the provision of these services. Soon it will no longer be acceptable to respond in a reflexive fashion to crisis events . . . school crisis preparedness will be expected" (Brock, Sandoval, & Lewis, 2001, p. 7).

The Benefits of Early Crisis Intervention

Long-term or permanent damage can develop if an individual experiencing crisis remains untreated, (Brock, et al., 2009; Brock, Sandoval & Lewis, 2001; Brock, 1998; Hendricks & Thomas, 2002; Palmatier, 1998; Poland & McCormick, 2000; Terr, 1983; Terr, 1992; Weinberg, 1993). Early recognition of potential crises encourages timely, proactive responses that may prevent or minimize impact. Crisis training may help to increase knowledge, skills, and confidence levels and maximize opportunities for efficient intervention (Poland & McCormick, 2000; Weinberg, 1993; Wellman, 1984). According to Johnson, Casey, Ertl, Everly, and Mitchell (1999), crises that are ignored or ineffectively resolved can create post-traumatic stress responses that compromise the achievement of the goals of education in the following ways: (1) creating negative reactions that impact learning; (2) reducing the ability to focus on instruction; (3) interfering with attention; (4) disrupting social exchanges; (5) decreasing memory retention and retrieval skills; (6) becoming obsessed or engrossed with the traumatic experience; (7) reverting to prior coping levels; and (8) increasing physiological arousal and startle responses. The study implies that school personnel can misinterpret many of these problems and associated crisis-related behaviors as discipline issues, and thus students are frequently punished as opposed to being provided with appropriate intervention services. Students who are experiencing crisis reactions that are not recognized or validated have a more difficult time restoring equilibrium and assimilating the experience (Wellman, 1984). There is a pending class action lawsuit against the Compton Unified School District wherein the plaintiffs allege the typical response was to

punish students who were traumatized by continual community-based violence rather than offer help. Research suggests that children who experience community violence are at an increased risk for depression, suicidal ideation, and lowered academic achievement (Foster, Kuperminc, & Prince, 2004). The Compton Unified School District suit maintains that trauma is a disability and therefore schools are required to make modifications and/or accommodations for traumatized students, rather than enforce penalties such as suspension or expulsion. The plaintiffs want the school district to provide teacher training, mental health support for students, supports for staff who are experiencing secondary trauma, and the use of conflict-mediation prior to punishment. This case highlights the continued importance of providing educators with specialized crisis response skills.

Children represent a particularly vulnerable population whose reactions or symptomology are typically different than those of adults (Brymer et al., 2006). Trauma exposure in early years can undermine child and adolescent development in a variety of areas that effect academic, personal, and interpersonal success: communication skills, an intact sense of self, peer and adult relationships, attention and focus, executive functioning skills, moral, and personality development, as well as influence coping skills (Barenbaum, Ruchkin, & Schwab-Stone, 2004; Briggs-Gowan, Carter, & Ford, 2011; Cole et al., 2005; De Bellis, Woolley, & Hooper, 2013; Goodman, Miller, & West-Olatunji, 2012; Madrid, Grant, Reilly, & Redlener, 2006; Williams, 2007). Adverse experiences also place children at risk for negative academic, social, emotional and professional outcomes (Rossen & Hull, 2013). The strong association between measures of school safety and average student achievement suggests that students are unable to concentrate on academics when they fear for their physical well-being (Steinberg, Allensworth, & Johnson, 2011). This again speaks to the importance of being able to intervene with children in crisis

situations. Because most children spend much of their time within the school setting, school-based mental health providers are in a powerful position to be able to address their unique needs and issues. Further, outside providers might not know or understand the individual culture or climate of the specific school and therefore would be challenged to deliver sufficient support (Brown & Bobrow, 2004). This provides a rationale not only for appropriately training and utilizing the skills of school-based mental health professionals, but also to encourage schools to have their own crisis teams.

The PREP²RE Model

In an effort to address the significant need for a comprehensive crisis response program, workgroups sponsored by NASP developed the PREP²RE School Crisis Prevention and Intervention Training Curriculum (Brock, 2006; Reeves, Nickerson, & Jimerson, 2006). PREP²RE provides school-based mental health professionals and other educators with training on how best to fill the roles and responsibilities generated by their participation on school crisis teams. In order to develop a globally accessible model of a multidisciplinary team to engage in crisis prevention, preparedness, response, and recovery, the PREP²RE authors considered the unique structures and functions of schools. At present, it is the only comprehensive, internationally disseminated training program developed by school-based mental health professionals that is specifically designed for use by school-based mental health providers. PREP²RE is aligned with the activities of crisis response recommended by the Department of Education's Readiness and Emergency Management for Schools (REMS) and the Incident Command System (ICS) as implemented by the National Incident Management System (NIMS) of the Department of Homeland Security. Figure 1 explains how the acronym summarizes the main tenants of the training curriculum.

Figure 1.

P	Prevent and prepare for psychological trauma
R	Reaffirm physical health and perceptions of security and safety
E	Evaluate psychological trauma risk
P	Provide interventions
a	and
R	Respond to psychological needs
E	Examine the effectiveness of crisis prevention and intervention

The goal of PREP[a]RE training is to better equip participants to help reduce negative trauma reactions, build students' resiliency and coping capacity, and strengthen the school community, while also enhancing the school psychologists' role within the school and highlighting mental health service skills. PREP[a]RE has two core workshops covering prevention, intervention, and recovery. Workshop 1 (Crisis Prevention and Preparedness: Comprehensive School Safety Planning) provides a broad overview of the roles and responsibilities for the school safety team and the crisis team, with a special emphasis on crisis prevention and preparedness. Members of school crisis teams, school mental health personnel, administrators, community liaisons, school resource officers, and any other professionals and support staff who will be involved in crisis planning are recommended to participate in Workshop 1. Workshop 2 (Crisis Intervention and Recovery: The Roles of School-Based Mental Health Professionals) provides a specific examination of school-based mental health professionals' roles and responsibilities, with particular emphasis on crisis intervention and recovery. Although primarily focused on mental health crisis intervention and recovery, it is relevant to anyone who

serves on a school crisis intervention team. While participants are encouraged to attend both presentations, each workshop can be considered standalone. Once a participant completes core Workshop 1 and/or Workshop 2, he or she is eligible to attend the Trainer of Trainers (ToT) for that particular module in order to become a PREP^{a}RE trainer. After successful completion of the ToT(s), PREP^{a}RE trainers are able to lead PREP^{a}RE workshops. It is anticipated that such training will become a part of building local/regional capacity and expanding consistent, standardized service delivery.

Data is collected at every PREP^{a}RE workshop. In reviewing the quantitative and qualitative information provided, Brock, Nickerson, Reeves, Savage and Woitaszewski (2011) determined that participation in PREP^{a}RE workshops yielded a high degree of satisfaction, immediate improvements in the respondents' attitudes towards crisis response, as well as increases in crisis prevention and intervention knowledge. Participants consistently experience significant gains in knowledge and significant improvements in attitudes toward crisis prevention and intervention. Similarly, Nickerson, et al. (2014) found that participation in PREP^{a}RE trainings was highly related to respondents' feelings of confidence in their crisis intervention knowledge and skills. Both studies utilized data from the original PREP^{a}RE curriculum and were used in the development of the second edition. The current research not only contributes to the literature on school psychologists' crisis-related knowledge and self-efficacy, but also provides additional data on the effectiveness of the PREP^{a}RE program. In order to assess the impact of training, this study investigated differences between school psychologists who identified themselves as PREP^{a}RE participants and those who indicated they have not participated in a PREP^{a}RE workshop.

The PREP^{a}RE authors recognized the need to align with other multi-tiered systems and supports (MTSS) that may already be present in school districts, such as Positive Behavioral Intervention and Supports (PBIS) and Response to Intervention (RtI). According to Dr. Melissa Reeves, primary author of Workshop 1 materials, structuring the training in this way will allow "school districts [to see] PREP^{a}RE and crisis planning and preparation as part of overall school climate and safety which directly influences academic achievement, instead of something you only do once a year in a staff meeting" (personal communication, October 6, 2015). The current research examined the differential efficacy of the separate PREPaRE workshops in an effort to inform how one or both of these curricula might enhance MTSS efforts in schools.

Crisis Preparedness Legislation

Crisis intervention programs are a relatively new responsibility for school systems in the United States. In 2001, No Child Left Behind (NCLB) required all schools to develop and implement safety or crisis plans. Each plan had to comply with other federal regulations, namely the Americans with Disabilities Act, Civil Rights Act of 1964, Health Insurance Portability and Accountability Act, and Family Educational Rights and Privacy Act. School personnel were legally obligated to respond if they were aware of a crisis situation. However, NCLB did not detail the particulars of the plan in terms of required elements or execution. The United States Departments of Education, Health and Human Services, Homeland Security, Justice, and the Federal Bureau of Investigation and the Federal Emergency Management Agency offer guidance. The joint bulletin *Guide for Developing High-Quality School Emergency Operations Plans* (2013) reinforces that schools do not routinely serve as response organizations in the same way as law enforcement or medical teams. When a school-based crisis occurs, school personnel can be the initial professionals to provide first aid, notify mutual-aid partners, and give

instructions before other supports arrive. Therefore, it was the authors' recommendation that each school or district create an Emergency Operations Plan that is aligned with the emergency planning practices at the national, state, and local levels.

In March of 2011, Presidential Policy Directive-8 (PPD-8) was authorized by President Obama with the goal of "strengthening the security and resilience of the United States through systematic preparation for the threats that pose the greatest risk to the security of the nation, including acts of terrorism, cyber-attacks, pandemics, and catastrophic natural disasters" (Obama, 2011). The mandate tasked the United States Department of Homeland Security to create a national preparedness system through which relevant entities will be able to communicate effectively across settings. This furthered the Department's 2008 work that updated the NIMS based upon the best practices of the National Response Framework. The revision incorporated military field elements and gave rise to the current version of the ICS. Because these directives were recently initiated, empirical support for the long-term effects of crisis intervention programs is presently unavailable. However, numerous qualitative accounts of school personnel who have responded to actual school crises attest to the value of having well-trained crisis teams and structured intervention programs in place (Brock, Nickerson, Reeves, Savage, & Woitaszewski, 2011; Decker, 1997; Pitcher & Poland, 1992; Poland & McCormick, 1999; Trump, 1998; Wanko, 2001).

In December of 2015, NCLB was reauthorized as the Every Student Succeeds Act (ESSA). ESSA carries on the spirit of the original mandate with a focus on safety by requiring states include at least one indicator of school quality (e.g., school safety) in their accountability system. ESSA sanctioned a $1.6 billion formula grant for states and districts to improve various components of the school system. According to ESSA, states are required to spend at least 20%

of the grant monies to foster healthy and safe learning environments. This can include funding for mental and behavioral health services. Further, it permits schools to use Title I funds to implement school based mental health programs as part of a school-wide program to address the needs of students most at risk for school failure.

Self-Efficacy and Crisis Response

Individuals with a sense of self-efficacy believe that they can successfully perform a behavior regardless of past failures or current obstacles. Bandura (1997) suggests that this expectation controls overt behavior. The higher an individual's self-efficacy is regarding a particular situation, the greater the individual's actual accomplishments in that situation. Bandura maintains that self-efficacy beliefs are not merely "passive foretellers" of one's ability level (Bandura, 1997, p. 39); rather, they can help manage and incite the requisite motivation to enact a behavior. According to Bandura, self-efficacy interacts with expectancies about the outcome of behavior in general, and the result of this interplay helps to shape a person's psychological well-being (Bandura, 1997). For example, if a person has low self-efficacy and also expects that nothing anyone does had much effect on the world, he or she may develop an apathetic perspective. However, if a person with low self-efficacy believes that other people enjoy the benefits of their efforts, the result may be self-deprecation or depression.

A professional should have fundamental characteristics in order to respond to crisis situations or to participate in school safety or crisis teams. These traits are comparable to those that would be used to evaluate crisis-related knowledge. In personal communications (August 31, 2015), Drs. Brock and Reeves, who are both authors of the PREP^{a}RE curriculum, suggested that *knowledge* of prevention, intervention, and postvention strategies, and *confidence* in his or her own ability and expertise to respond to critical incidents, are of paramount importance in

developing crisis-related self-efficacy. The current study sought to enhance the understanding of the extent to which PREP^{a}RE fosters the development of crisis-related self-efficacy.

Purpose of the Research

It is evident that school psychologists must have well-developed crisis response skills. Regrettably, few school psychologists receive formal crisis response training in graduate programs. The NASP Practice Model (NASP, 2015), specifically Domain 6: Preventative and Responsive Services, requires school psychologists to have knowledge of evidence-based strategies for effective crisis response, demonstrate skills to promote services that support mental health and safety, and implement effective crisis preparation, response and recovery. Professional practice exemplars include participation in school safety teams and school crisis teams. Given the documented limited preservice training for school psychologists, being able to access high-quality professional development opportunities, like PREP^{a}RE, is critical for practitioners. The current research evaluated the effect of PREP^{a}RE training on school psychologists' crisis-related knowledge and self-efficacy. Furthermore, it contributes to the literature by evaluating school psychologists' perceptions of their ability to take on the role of crisis intervener.

This experimental study examined the influence of participation in PREP^{a}RE training on school psychologists' knowledge of crisis prevention and response techniques as well as their skill at addressing individuals in a variety of crisis scenarios. Additionally, prior crisis-related training experiences, such as those in graduate programs or other professional development activities, were evaluated. The respondents' perceptions of self-efficacy and preparation in recognizing, assessing, and intervening with individuals who are in crisis were also explored.

Research Questions and Related Hypotheses

1. Does participation in PREP^{a}RE influence school psychologists' perceptions of crisis-related knowledge and self-efficacy?

   H_{o1a}: School psychologists who participated in PREP^{a}RE will have higher levels of crisis-related knowledge than school psychologists who did not.

   H_{o1b}: School psychologists who participated in PREP^{a}RE will have higher levels of crisis-related self-efficacy than school psychologists who did not.

2. Does the perceived expertise level of the PREP^{a}RE presenter influence the crisis-related knowledge and self-efficacy of the participants?

   H_{o2a}: School psychologists who received training from at least one author of the PREP^{a}RE curricula will have equivalent levels of crisis-related knowledge as those who did not have at least one author conduct the training.

   H_{o2b}: School psychologists who received training from at least one author of the PREP^{a}RE curricula will have equivalent levels of crisis-related self-efficacy as those who did not have at least one author conduct the training.

3. Does participation in the individual PREP^{a}RE workshops result in differential levels of crisis-related knowledge and self-efficacy?

   H_{o3a}: School psychologists who participated in Workshop 2 of PREP^{a}RE will have higher levels of crisis-related knowledge and self-efficacy in comparison to school psychologists who participated in Workshop 1 only.

   H_{o3b}: School psychologists who participated in both Workshops 1 and 2 of PREP^{a}RE will have the highest levels of crisis-related knowledge and self-efficacy.

Definition of Terms

Coping is the process of using various, healthy or unhealthy, cognitive and/or behavioral strategies to adapt to stressors.

Crisis can be used to cover a broad range of anticipated and unanticipated events. Brock's (2002) definition of crises as *sudden, uncontrollable, and extremely negative events that have the potential to impact an entire school community* will be used predominantly in the current study. Examples of crises that fit this definition include severe illness and injury, unexpected death, threatened death or injury, acts of war, natural disasters, and man-made disasters. This term may be used synonymously with *critical incident.*

Crisis intervention or *crisis response* involves the immediate provision of assistance to individuals experiencing a crisis. It is a short-term, goal-directed helping process focused on resolution of an immediate problem and stabilization of the resulting emotional conflicts. Prompt intervention should be geared toward reestablishing emotional and behavioral stability, providing support, and facilitating the needs of those most closely impacted by the crisis (Klicker, 2000). Crisis intervention is also referred to as *secondary care* (Caplan, 1964).

Crisis resolution is the goal of crisis intervention. Resolution involves the restoration of equilibrium, cognitive mastery of the situation, and the development of new coping strategies. However, in cases of perpetual crisis stressors (e.g., chronic community-based violence) the resolution is less about recovery and becomes more focused on survival and increasing effective coping skills.

Disequilibrium is the disruption of an individual's homeostatic balance as a result of a crisis event. It is associated with the inability to maintain emotional control and characterized by confusing emotions, increased vulnerability, somatic complaints, and erratic behavior (Roberts, 1990).

Postvention involves the provision of services (including counseling and debriefing activities) designed to reduce the long-term effects experienced by those directly and indirectly impacted by crises. The recovery process includes learning new ways of coping with stress through positive crisis resolution (Hoff, 1995). Postvention is also referred to as *tertiary care* (Caplan, 1964).

Prevention, for the purpose of this study, is the provision of education, training, consultation, and crisis intervention designed to reduce the occurrence of mental distress, reduce the incidence of crises, and promote growth, development, and crisis resistance in individuals and the community. Prevention is also referred to as *primary care* (Caplan, 1964).

Psychological triage is the manner in which each individual's unique risk factors are assessed in order to determine the appropriate level of intervention and postvention services. Included in this evaluation are the individual's proximity to the critical incident, vulnerability (e.g., coping skills, support network), and reactions to the event.

Self-efficacy has been defined by Bandura (1995) as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (p. 71). In short, it can be understood as an individual's perception of competence or confidence to respond appropriately in a given scenario.

School crisis is an incident occurring either at school or in the community that negatively impacts students, staff, and/or other members of the school community (Trump, 2000). Any situation that creates, or has the potential to create, a disruption of the educational process or normal school operations can be considered a school crisis.

Trauma is an emotional response to adversity, stress or a crisis (APA, 2015). Immediately following a critical incident, shock and denial are expected. Longer-term responses include emotional lability, flashbacks, and disrupted relationships, as well as somatic complaints.

CHAPTER 2

LITERATURE REVIEW[1]

Although there have been publications on self-efficacy, crisis theory, and school crises, there is little research on the preservice training of school psychologists specific to crisis intervention or the role of school psychologists in responding to critical incidents. To date, there is no research on the direct connection between perceptions of crisis-related knowledge and self-efficacy of school psychologists and participation in PREPaRE training.

Self-Efficacy

Self-efficacy stems from the work of Bandura (1977, 1982, 1986, 1995, 1997) and his Social Cognitive Theory, in which human behavior is defined as the interaction of personal factors, behavior, and the environment. It posits that an individual's thoughts and actions effect the individual's behavior and relationships. An individual's relational interactions draw from his or her own beliefs and cognitive competencies that have been developed and impacted by the influences of their environment. As such, the relationship between the individual, behavior, and environment is reciprocal with each element affecting change within the others (Bandura 1977; Bandura, 1986). This can be broadened to presume a relationship between an individual's perceptions of his or her preparedness and his or her self-efficacy. In short, feeling prepared increases one's perception of self-efficacy.

Whether people learn through direct experience with consequences or through observational learning processes, their behavior tends to affect their environment. Observing this

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[1] *Note: Components of the literature review (e.g., specific protocols, procedures, or recommendations) were adapted from the materials provided to* PREPaRE *participants and trainers. Citations made within these documents were retained and included herein. Use of these resources was most notable in the Crisis Drills; Preventative Measures; Safety Teams, Crisis Teams and Planning; Assessing Psychological Trauma: Conducting Psychological Triage; and Supports and Interventions sections.*

effect on their environment may in turn affect their cognitions, which may in turn affect their behavior, and so on. According to Bandura (1986), this concept of reciprocal determinism shapes personality through the complex and constant interaction among thoughts, the environment, and behavior.

Bandura (1982) posited that an individual's self-efficacy is based upon four main sources of information: previous direct experience (i.e., performance outcomes), previous vicarious experiences of viewing others addressing a similar situation (i.e., vicarious experiences), peer reinforcement and assurance (i.e., verbal persuasion), and physiological input such as arousal levels. Performance outcomes are the most important source of self-efficacy. Positive and negative experiences can impact the willingness of an individual to attempt a given task. If one has performed well at the same (or similar) task previously, the individual is more likely to feel competent and be willing to engage in the task (Bandura, 1977). People can also develop high or low self-efficacy vicariously through other people's performances. A person can watch someone else perform and then compare his or her own competence with the performing individual's competence (Bandura, 1977). Self-efficacy can increase when an individual witnesses someone similar to them succeed.

Given these criteria, it follows that an individual's analysis of self-efficacy is influenced through participation in training programs. However, Bandura cautioned that self-doubts typically have the effect of increasing knowledge and learning but may hinder actual behavior of learned skills (Bandura, 1982). In other words, an individual might have received comprehensive training in crisis intervention, but may have very little intervention experience and therefore may offer a low rating of self-efficacy. It is logical to presume, then, that perceptions of self-efficacy

will be increased as a result of partaking in a reputable training, especially when accompanied by previous successful responses to crisis events.

Crisis Theory

The earliest work in the area of crisis theory and interventions is typically attributed to Erich Lindemann, a social scientist. He was one of the first in the field to systematically observe the psychological impact unexpected trauma had on individuals. Through his research he was able to begin to develop crisis theory. With his associate, Gerald Caplan, Lindemann established one of the first community mental health facilities, which allowed him to conduct further research on crisis intervention (Sandoval, 2002).

In 1942, nearly 500 people were killed, and hundreds more injured, in the Cocoanut Grove nightclub fire in Boston, Massachusetts. Lindemann provided psychological assistance to survivors, family, and friends in various states and stages of crisis. His study (1944) of the acute grief resulting from this crisis provided the foundation on which the current understanding of crisis reactions was built. Lindemann identified five main characteristics of grief, including "somatic distress, preoccupation with images of the deceased, guilt, hostile reactions, and loss of patterns of conduct" (p. 142). He noted that acute crisis situations trigger similar patterns of grief and also discovered that individuals who were supported in expressing their grief experienced a quickened return to pre-stressor levels.

Lindemann (1944) commented on the seriousness of grief postponement, such as when a person who faces a tragedy displays little or no reaction. He highlighted the common interest of wanting to avoid the intense pain associated with grief and loss. He concluded that, without intervention, denial and grief postponement were likely to lead to the development of personality

disturbances and maladaptive behaviors. Lindemann's studies normalized a series of typical responses and predicted how certain grief reactions might impact crisis recovery (Hendricks & Thomas, 2002). Current applications of Lindemann's theories on acute grief, psychosomatic illness, and crisis response procedures underscore the importance of immediate intervention, debriefing, and postvention efforts in order to lessen the long-term impact of crises.

Following the revolutionary research of Lindemann, Erik Erikson published *Childhood and Society* (1963) in which he set the basis for his developmental crisis theory (Sandoval, 2002). Erikson hypothesized that all human beings endure a series of major crises as they go through the life cycle and suggested that growth occurs through resolution of the crises. He normalized transitional crisis events and viewed them as necessary and therapeutic to healthy social-emotional development.

Erikson's (1963) work introduced the notion that we face a specific psychosocial dilemma at each stage of life. These crises occur when there is conflict between personal impulses and the social word. According to Erikson, resolution of each dilemma creates a new balance between a person and the world. The crises emerge according to a maturational timetable and must be satisfactorily resolved for healthy ego development. He posited the categorization of crises as: (1) maturational developmental crises, involving the physical, social, and emotional changes that are common to the natural lifespan process, and (2) accidental situational crises, which involve trauma and/or unexpected loss initiated by an unpredictable situation that challenges an individual's typical coping mechanisms. These categories also have been referred to as "internal" or "external" crises.

Gerald Caplan began his work in the mid-twentieth century (Baldwin, 1979). In contrast to Lindemann's view of crisis as a personal, unpredictable situation, Caplan viewed crisis from a

developmental perspective. Basing his theory on Erikson's (1963) theories of lifespan development, Caplan believed that crises are usually triggered by predictable developmental "tasks" that could be anticipated at various stages of life. The concept of preventative mental health stemmed from the notion that because developmental crises are expected they also could be prevented (Pitcher & Poland, 1992). In this way, he introduced to the field of mental health the notion of preventative services and public mental health services (Sandoval, 2002). Akin to Erikson's conceptualization, Caplan suggested that failure to negotiate transitions from one developmental stage to another plays a role in the development of psychopathology. He noted further that personal and social vulnerabilities are essential to the resolution of internal and external crises (Pitcher & Poland, 1992).

Caplan was one of the first to address the concept of homeostasis as it relates to crisis. According to Caplan, coping strategies are used to maintain emotional equilibrium, and thus he viewed crisis "as an upset of and an inability to maintain a steady emotional state" (Brock, Sandoval & Lewis, 2001, p. 12). Caplan operationalized a crisis as a period of time when an individual is temporarily out of balance. Rather, the individual is in a state of psychological disequilibrium.

Caplan proposed a three-part model of mental health consultation that has become the foundation of school crisis intervention programs and crisis response (Pitcher & Poland, 1992), including PREP^{a}RE. Primary care, or prevention, focuses on reducing the incidence of crises. With respect to the PREP^{a}RE curricula, this component is addressed for the whole of Workshop 1. Secondary care, or intervention, involves the immediate provision of assistance to individuals experiencing a crisis. Tertiary care, or postvention, reduces the long-term effects experienced by

those directly and indirectly impacted by the crisis. PREP^{a}RE fully addresses both of these components in Workshop 2.

Caplan's crisis intervention framework and his consideration of developmental transitions are important contributions to crisis theory. Further, he accentuated community responsibility in supporting the recovery of individuals in crisis. Long before PPD-8 noted earlier, Caplan urged, "...community and its agencies to work together to assist individuals in need . . . advocates trained in crisis intervention do this by training and networking community programs and by promoting general community welfare through preventative programs and response efforts" (Hendricks & Thomas, 2002, p. 11). School-based crisis intervention is critical because of the intensity and frequency of both maturational and situational crises experienced by students. Additionally, school communities have a distinctive social structure that can contribute to crisis recovery.

Working in Amsterdam during the 1930s, Arie Quierdo developed a psychiatric first-aid service based on his discovery that intervention in an environment familiar to the patient was therapeutic on its own (1968). His method, originally referred to as emergency first aid, was used expansively by the military during World War II, as well as the Vietnam and Korean conflicts. During battle, those dealing with combat fatigue were relocated away from artillery fire to receive intervention. Subsequent research (e.g., Hendricks & Thomas, 2002) indicated that those soldiers were able to regain equilibrium even though the immediate environment could be considered in a state of crisis. The effectiveness of crisis intervention is directly related to the intervention's proximity in both time and place to the crisis event. Today, Quierdo's method is referred to as psychological (or mental health) first aid and is considered synonymous with crisis intervention.

Due to the pioneering work of Lindemann, Erikson, Caplan, and Quierdo, mental health awareness has become a part of conversation and providers have been welcomed into communities and schools. Their research examined the effects of internal and external crises and informed trauma response, crisis theory, and intervention practices. Further, their concepts of brief mental health interventions, including crisis intervention, have become accepted and, in many ways, required. In fact, the Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition contains a new category with criteria for Trauma and Stress Related Disorders, including Post Traumatic Stress Disorder (PTSD), Disinhibited Social Engagement Disorder, Acute Stress Disorder and Adjustment Disorder (APA, 2013).

Definitions of Crisis

Crisis situations inevitably occur throughout the routine course of life and may be prompted by either a single catastrophic event (such as the school shooting at Sandy Hook Elementary School, Superstorm Sandy, Hurricane Katrina, or the terrorist attacks of September 11, 2001), or the cumulative effect of successive stressors (such as repeated physical abuse or chronic community violence). It is important to note that the term *crisis* covers a wide array of incidents, and does not automatically mean a single traumatic event, such as a school shooting. Such situations of violence are statistically rare, as cited by the National Center for Educational Statistics (2013). According to the School-Associated Violent Deaths (SAVD) Surveillance Study, from the time period of July 1, 2011 to June 30, 2012 (the most recent information available), there were a total of 45 school-associated violent deaths in elementary and secondary schools in the United States. Of those incidents, 26 were homicides, 14 were suicides, and 5 were legal interventions (i.e., involving a law enforcement officer). More recent information gathered from media reports can provide a glimpse of SAVD cases occurring since June of 2012. For

example, the Sandy Hook Elementary School shooting incident (Newtown, Connecticut) on December 14, 2012, resulted in 20 child homicides, 6 adult homicides, and 1 adult suicide. On its website, the Everytown for Gun Safety organization has been chronicling school shootings since the Newtown tragedy (Everytown, n.d.). In the first two years since the incident at Sandy Hook Elementary School, there were 92 reported school shootings. It is important to note that the SAVD and Everytown use different measures to categorize their data. The former only reports an incident when a fatality occurs on the school grounds of elementary and secondary schools, whereas the latter records any situation in which a firearm is discharged on a campus from elementary school to college. When the Everytown chart is reviewed using the SAVD criterion, the number of school shootings since from December 15, 2012 through December 15, 2014 declines to 35.

Reactions to Crisis

Although once considered pathological, crisis reactions are now recognized as typical responses to atypical situations (Brock, 1998). Of course, there does remain the possibility that what begins as a common response can lead to pathology, but this is less often the case; recovery is expected. According to Caplan (1964), crises challenge coping resources, jeopardize an individual's sense of emotional balance and stability, create psychological distress, and cause individuals to feel trapped (i.e., unable to escape or effectively deal with the problem at hand).

PREP^{a}RE denotes specific characteristics for assessing the significance of a crisis. The situation must be perceived as extremely negative, thusly leading to physical or emotional pain. It needs to generate feelings of helplessness, powerlessness, and/or entrapment. The incident may occur suddenly, unexpectedly, and without warning. There is also a hierarchy of crisis classifications in terms of traumatic impact. The highest impact events have a greater sense of

assaultive violence and typically have a higher fatality rate, such as acts of war and/or terrorism. The lower impact events are generally less intentional, such as natural disasters or severe (nonfatal) illness or injury. Four features influence the resultant devastation from a crisis: predictability, consequences, duration, and intensity. Each of these characteristics can mitigate the level of response needed, as well as the length of the trauma impact. It is important to recognize that duration and intensity can be affected by media exposure.

The crisis state "results in significant upset, discomfort, anxiety, disorganization, and/or disequilibrium. This distress is associated with an inability to cope with or adapt to the crisis circumstances" (Brock, Sandoval & Lewis, 2001, p. 15). The emotional experience of a crisis may range from intense pain to numbness, but usually includes confusion, vulnerability, disorganization, helplessness, and disequilibrium (Cohen & Fish, 1993). An individual in crisis often exhibits changes in attention span (usually decreased), reflection, emotional responses (typically becoming more overt and less restrained), impulsivity, and help-seeking behaviors (Hendricks & Thomas, 2002). According to Hendricks and Thomas, "the interpersonal experience of the individual in response to the event that in some way involves others in the interpersonal environment is the foundation for understanding the dynamics of crisis formation" (p. 7). Therefore, an individual's perceptions, skills, experiences, and abilities cannot be viewed in isolation (Palmatier, 1998). PREP^{a}RE supports this and endeavors to consider the individual's unique perception to the whole of the critical incident. The PREP^{a}RE training reinforces that services will not be provided to an individual who is not demonstrating, in overt or covert ways, a need.

Crisis Drills

In response to incidences of school-based violence in recent decades, there has been a surge in the number of materials to support school personnel in intervening with school crises (e.g., Brock, Sandoval, & Lewis, 2001; Pitcher & Poland, 1992). Likewise, legal requirements have been created requiring schools to take crises in to consideration. In addition to PPD-8, many states now require schools to have protocols for harassment, intimidation and bullying; suicide intervention; and disaster preparedness. As of 2010, the New Jersey Department of Education requires districts must have one fire drill and one security drill per month. Security drills include active shooter, evacuation (non-fire), bomb threat, lockdown, shelter-in-place, and reverse evacuation. Further guidance is provided for the maintenance of a district-wide emergency management manual, which should contain contact information for all school personnel, building schematics, and specific instructions of how to respond in a host of potential crises (e.g., chemical spill, missing person).

Given the relative novelty of the field, recommended practices may not have been thoroughly vetted (Pagliocca, Nickerson, & Williams, 2002; Vernberg, 2002). However, although there is a lack of research on crisis prevention and intervention in schools, there is consistency across best-practices recommendations. Specific crisis preparation and preparedness strategies typically recommend include developing a comprehensive crisis management plan, forming a multidisciplinary crisis response team, and conducting emergency exercises. Although developing crisis response plans and forming multidisciplinary crisis teams have face validity and are supported by the military model, empirical data are lacking (Brock & Jimerson, 2004; Pagliocca, Nickerson, & Williams, 2002). Crisis drills, often referred to as emergency or security drills, particularly those that provide children with active practice, an explanation for the rehearsal, and opportunities to discuss how each protocol would help in an emergency situation,

have been found to lead to better skill performance and reduced fears about fires (Hillman, Jones, & Farmer, 1986; Jones, Ollendick, McLaughlin, & Williams, 1989). Rehearsing procedures has been found to increase the prospect of members of the school community adhering to the protocols in the event of a real crisis (Jones & Randall, 1994; Miltenberger et al., 2005). Lockdown drills practiced according to such models have been suggested to increase knowledge and skills of how to respond appropriately without increasing anxiety or perceived safety risk (Zhe & Nickerson, 2007).

PREP^{a}RE offers a multilevel approach for practicing security drills. After orienting the school community to the protocols for each emergency drill, it is recommended to practice the same. Such rehearsals can occur in a typical format, such as a fire drill. The next level of training would be a tabletop exercise wherein a scenario of a critical incident is created and members of the multidisciplinary crisis team evaluate their hypothesized response. These are often conducted in real time to allow for the participants to truly understand how long each step might take (e.g., after calling 911, it might take ten minutes for the first responder to arrive on scene). The next level is called a functional exercise, which is a stressful simulation of what happens during a crisis event without deploying all school and local resources to respond. For example, a functional exercise of a fire may involve use of a smoke machine in the building or artificially heating an exit door. Both of these simulate realities of a fire emergency and force staff and students to practice evacuation under convincing conditions.

The last level of training discussed in the PREP^{a}RE curricula is a full-scale drill. This typically takes about three to six months of advanced planning and may last several hours or a full school day to conduct. The full-scale drill involves the school and all local emergency response agencies that would be relevant to the simulated crisis event. Schools would practice a

foreseeable critical incident (e.g., a fire caused by an explosion in the chemistry lab) by going through the steps of the crisis response protocol. This could include assessing the need for medical attention, family reunification steps, mental health support, and so on.

Most schools do not conduct a functional exercise or full-scale drill each school year. However, schools should not conduct either of these more advanced trainings without first preparing the entire school community with orientations, emergency drills and tabletop exercises. In all cases, trainings must be developmentally appropriate, minimize traumatic exposure and impact, avoid the use of unnecessary and potentially frightening props (such as rubber bullets), and provide support in the aftermath for those individuals who were frightened. It is essential for school personnel to work with law enforcement in order to conduct these exercises in a manner that does not compromise physical or psychological safety. Parent and staff consent also need to be considered.

In the event that a district would like to conduct full-scale drills, FEMA (2003) provides four key recommendations: (1) the focus should be on preparing and learning, while being sensitive to the needs of students and staff who may be vulnerable to the realism associated with a full-scale drill; (2) support must be available to address the needs of the school community in the event of emotional responses during or after an exercise; (3) trauma histories must be considered prior to the selection of volunteers to participate in the drill as victim or perpetrator; (4) notification must be made to the public so as to not lead people to believe the rehearsal is an actual critical incident.

Training staff in recognizing risk factors and having structures in place to systematically assess these risks are critical to prevention. Additionally, students and staff need to be informed of what to do if they detect a risk. Schools should be equipped to conduct risk assessments for

suicide, homicide and other threats. Mitigation of threats can be invaluable in preventing loss. Everyone inside the school and in the community needs to work together to achieve the goal of having a safe learning environment. Collaboration with local emergency agencies, neighborhood resources, the school community, and national assistance teams is essential in promoting psychological safety. As indicated earlier, legislation requires interagency cooperation in creating school safety plans (U.S. Department of Education Readiness and Emergency Management for Schools, 2008; *Guide for Developing High-Quality School Emergency Operations Plans*, 2013).

Preventative Measures

In an op-ed article, Dewey Cornell (2016), a forensic clinical psychologist and professor of education who is Director of the University of Virginia Youth Violence Project recently wrote, "Prevention does not require prediction...Violence prevention cannot wait until there is a gunman at the door, but must start long before problems escalate into violence." Schools can incorporate preventative strategies in an effort to reduce instances of school-based violence. Some facilities have opted to implement zero tolerance policies, which may use metal detectors or security checks to deny entry to anyone carrying a weapon, in attempts to prevent incidents of violence. A significant body of research suggests that these policies are ineffective as the means to increase positive student outcomes (American Psychological Association Zero Tolerance Task Force, 2008). Such policies have limited empirical support as well as a propensity to create unintended negative consequences, such as student resentment and escalation of behavior (Skiba & Knesting, 2002).

Instead, the research suggests that social supports, resilience, and hope are critical to help children successfully cope in the aftermath of a traumatic experience (Hines, 2015). These

prevention programs use instructional methods to teach the student body about violence and character education (Pagliocca & Nickerson, 2001; Skiba et al., 2000). There is more empirical support for educational approaches when they are implemented within the framework of a comprehensive and integrated mental and behavioral health program (Adelman & Taylor, 2013; Huang et al., 2005). Interventions such as character education, positive behavioral intervention supports (PBIS) (e.g., Caldarella, Shatzer, Gray, Young & Young, 2011; Cohen, Kincaid, Childs, & Elfner, 2007; Luiselli, Putnam, Handler, & Feinberg, 2005; Sherrod, Getch, & Ziomek-Daigle, 2009; Waasdorp, Bradshaw, & Leaf, 2012), peer mediation (e.g., Bickmore, 2002), and social-emotional learning programs (e.g., Aber, Jones, Brown, Chaudry, & Samples, 1998; Bierman et al., 2010; Durlak, Weissberg, Dymnicki, Taylor & Schellinger, 2011; Graziano, Reavis, Keane & Calkins, 2007; Taub, 2002) have been shown to support student growth. For decades it has been documented that a positive school climate can be the foundation for effective instruction, learning, and student success (Brookover et al., 1978; Buckley, Storino, & Sebastiani, 2003; Eccles et al., 1993; Gottfredson & Gottfredson, 1989; Skinner & Belmont, 1993; Thapa, Cohen, Guffey, & Higgins-D'Allesandro, 2014). Further, it promotes a physically and psychologically safe learning environment to support academic and social-emotional learning, as well as increasing school attendance, decreasing dropout rates, and closes the achievement gap (Covington Smith & Williams Bost, 2008). The final report of the Sandy Hook Advisory Commission (2015) reiterated several of the key tenets of the prevention components of the PREP^{a}RE curricula, including crime prevention through environmental design (CPTED), utilizing multidisciplinary school committees to address school climate and responses to critical incidents, and the importance of access to effective mental health care for those affected by trauma.

Physical safety. PREP[a]RE discusses crime prevention through physical safety and psychological safety. The former emphasizes three concepts: natural access control, natural surveillance, and territoriality. A natural access control and surveillance design helps to promote students' taking ownership of their school and increases a potential offender's perception of risk, because they know the school community will not tolerate negative behaviors. More detailed descriptions of these components of CPTED follow.

Access control is a concept aimed at decreasing the opportunity for a crime to occur. Such things as guards, locks, closed doors/windows, double entryway doors, limiting entry to one centralized location with clearly enforced visitor procedures, established procedures for deliveries, fences, gates, or other physical design elements can discourage access by unintended users (Crowe, 2000; Crowe & Zahme, 1994). It is important to note zero tolerance is not the same as access control, although zero tolerance sites may use the same features.

Natural surveillance allows people to observe events that occur both inside and outside the building. As such, it can be one of the first steps in creating a safer school environment. A clear line of sight to the outside of the building, use of cameras, proper lighting (including in the parking areas), clearly marked parking spaces for visitors, landscaping, as well as increased supervision within the building (e.g., monitoring the hallways during passing periods) can all contribute to surveillance (Crowe, 2000; Crowe & Zahme, 1994).

The final component of physical safety is territoriality, which is essentially the delineation between the school campus and community property. In addition to the boundaries created, it also represents school pride. Helping to keep the school clean, displaying student work, and demonstrating school spirit can call increase territoriality (Crowe, 2000; Crowe & Zahme, 1994).

Psychological safety. A primary concept in promoting psychological safety is establishing a school-wide PBIS program. Nearly 18,000 schools across United States have shifted to using the universal system as an effective, evidence based approach to reduce problem behaviors and increase positive behaviors (Fallon, McCarthy, & Sanetti, 2014). Supportive approaches to discipline are more effective than those that rely on punitive consequences (Gregory, et al., 2010). PBIS programs have the capability to generate various options when dealing with problem behaviors or preventing behaviors from occurring (McClean & Grey, 2012). Attention is focused on creating and sustaining universal (school-wide), targeted (classroom or group), and intensive (individual) systems of support. Positive behavior intervention support helps in reducing problem behaviors, increasing academic success and improving the quality of life (Coffey & Horner, 2012). Schools that are unfamiliar with the PBIS system often respond to problem behaviors with office discipline referrals, suspensions, or other zero tolerance policies (Caldarella et al., 2011).

In addition to PBIS, school officials may consider incorporating social-emotional learning. Students lacking social-emotional skills experience challenges in following directions, managing their emotions, and getting along with other children and the adults that share their classroom. Such programs can be a fundamental part of the curriculum from preschool through high school as ways to help children explore and identify feelings that may contribute to concerning behaviors. Likewise, social-emotional curriculum can directly teach children how to utilize social problem-solving skills in challenging situations (Durlak, Weissberg, Dymnicki, Taylor & Schellinger, 2011). Payton and colleagues (2008) found that social-emotional learning initiatives promoted academic success, health, and well-being in urban, suburban and rural school and after school programs across K-12 grade levels while simultaneously preventing a

variety of problems such as substance abuse, violence, truancy and bullying. Bettencourt, Gross and Ho (2016) conducted a longitudinal study using the Personal and Social Development domain of the Maryland Model for School Readiness (MMSR) to examine the relationship between kindergartners' social-emotional readiness and important educational outcomes in more than 9,000 elementary school students enrolled in Baltimore City Public Schools. The investigators tracked the same students through fourth grade and found that students who entered kindergarten behind in social-emotional skills were up to 80% more likely to have been retained; up to 80% more likely to require special education services; and up to seven times more likely to be suspended or expelled at least once. Additionally, social-emotional readiness in kindergarten was a significant predictor of grade retention even after controlling for student scores on the other readiness domains of the MMSR, such as language and literacy development, cognition and general knowledge, and physical development and health.

Another aspect of psychological safety is school connectedness, which is defined by the Centers for Disease Control and Prevention (2009) as "the belief by students that adults and peers care about their learning *as well as* about them as individuals. (p. 5)" [emphasis added]. School connectedness is related to natural surveillance discussed earlier, specifically in the increased presence of school staff members in the hallways, lunchroom, and so on. It reduces the prevalence of deviant behaviors regardless of the socio-economics of the community (Dornbusch, Erikson, Laird & Wong, 2001) and for students with and without disabilities (Murray & Greenberg, 2001). As with territoriality, school connectedness leads to higher academic motivation, greater school competence, and more positive perceptions of the overall school climate (Frey, Ruchkin, Martin, & Schwab-Stone, 2009; Murray & Greenberg, 2001). It results in higher grade point averages and the development of supportive relationships with

teachers and peers (Jennings, 2003). Kraft, Marinell, and Yee (2016), in collaboration with the Research Alliance for New York City Schools, recently completed a multiyear exploration the relationship between school organizational contexts, teacher turnover, and student achievement in New York City middle schools. The researchers analyzed multiple data sources to evaluate their impact on overall school climate. These were distilled in to four main categories: school safety and order, leadership and professional development, high academic expectations, and teacher relationships and collaboration. The study tracked those indicators over a period of four years (2008-2012) and compared them with student test scores and school data on teacher retention. Increases in school safety and academic expectations for students correspond with increases in student achievement. Safety had the strongest relationship with student gains across both English language arts and mathematics. Increases in measures of school safety and high academic expectations alone boosted math scores enough to account for an extra month and a half of instruction.

Safety Teams, Crisis Teams and Planning

In 2011, the PREPaRE Workshop 1 curriculum was updated to include newer research and statistics, and to align with recent government guidelines. Due to the significance of school climate in crisis prevention and preparation, one of the new concepts introduced in the second edition is the importance of having comprehensive safety teams and plans in addition to the physical and psychological safety precautions. Many schools already have crisis teams set up to address crisis planning, without a focus on overall school safety and climate. Current literature (Reeves, Kanan, & Plog, 2010) recommends attention to both overall safety and prevention programming, in addition to crisis planning. Safety teams focus on prevention, whereas crisis teams focus on response. In an ideal situation, the two teams would have overlapping personnel

so that the response teams have been able to contribute to the development of the plans. Unfortunately, PREPaRE notes that one of the professional groups most often left out of the safety team model, and resulting safety planning, is school-based mental health professionals. Such personnel can introduce safe school initiatives and quality prevention programs, help establish effective safety and crisis plans, provide guidance and support to administrators regarding system-level issues for consideration in plan development, advise school leaders on physical and psychological responses in the event of a crisis and provide direct interventions, conduct program evaluation regarding the effectiveness of the safety and crisis plans, facilitate plan modifications, and, perhaps most importantly, help students and staff return to precrisis levels of functioning in the event of a critical incident. When they are unable contribute to safety planning, school psychologists miss out on the opportunity to build self-efficacy through performance attainments, or to build vicarious self-efficacy through observation of others' response practices.

A comprehensive district safety plan specifically addresses district needs, provides direction for safety and academic programming for all schools, and directs guidance, leadership, and training. Similarly, the comprehensive school safety plan focuses on meeting school-level needs and following the guidelines set forth by the district. The goal of the safety plan is, through data-based decisions, to ensure a common understanding of crisis response plans that address the physical and psychological safety of the school community as mandated through legal requirements.

Assessing Psychological Trauma: Conducting Psychological Triage

Regrettably, even the most comprehensive prevention plan cannot guarantee a critical incident will not occur. Therefore, PREPaRE suggests that significant attention should be paid to

appropriate crisis response. Once physical and psychological health and safety are reinstated, personnel can begin to assess psychological trauma. The goal would be to identify those who are considered at risk for becoming psychological trauma victims and to help make initial decisions for treatment. It must be highlighted that multiple tools are used for this evaluation and the resultant psychological intervention are continuing. As presented during PREP²RE training, "triage is a process, not an event" (personal communication, Brock, July 20, 2015). It is ongoing and changeable based upon the presentation of the individuals in crisis. It is important to note again that recovery is typical and expected. Not everyone who experienced the crisis may be so affected that intervention would be warranted; therefore, the providers would respond only to those demonstrating need (McNally, Bryant & Ehlers, 2003). Delivering support to those who have *not* indicated necessity may cause undue harm to the individual because of a continued exposure to the crisis, as well as reducing the student's perception of independent problem-solving abilities and safety (Berkowitz, 2003; Everly, 1999). However, individuals with preexisting psychopathology would be the exception. School-based mental health providers often have the benefit of knowing their student population so they would be aware of such personal sensitivities (Brock, et al., 2009). This provides further support for having school-based mental health professionals serve as members of safety and crisis teams.

In assessing psychological trauma, the providers should evaluate the individual's unique experience of the critical incident. Particular attention would be paid to the student's proximity, both physical (i.e., where they were when the event took place) and emotional (i.e., who they knew who might have been involved in the event). In both situations, the further removed the student was, the less likely intervention becomes (Brock, 2002). As previously mentioned, media coverage can affect perceptions, so care providers should be mindful of individuals' exposure to

the news, Internet and social media (Galea, et al., 2002; Koliatis, et al., 2003). Further, a key consideration is the individual's perception of the situation as a threat. The subjective interpretations can be more important to the overall crisis perception than the exposure. Groome and Soureti (2004) reported that among children who experienced an earthquake, personal reports of believing they were in danger were related to higher scores on assessments of anxiety. Further, young children usually look to trusted adults for signals on how to react to the situation. In 1991, Green et al. reported that, following a dam failure, traumatic stress symptoms of children aged two to seven were more influenced by the reactions of adults (i.e., severity of parental PTSD) than by the actual crisis exposure. A child will often mirror the level of response given by the adult (Landolt, Vollrath, Timm, Gnehm & Sennhauser, 2005).

The second variables to consider during the evaluation process are the personal vulnerability risk factors (i.e., who the person was when the incident took place). Again, school-based personnel would likely have knowledge about the students' precrisis stability and coping strategies. If an individual had sufficient coping skills, no preexisting psychiatric challenges or trauma history, strong social support resources, and an ability to regulate his or her own emotions, crisis intervention is typically not required. However, if the student has an avoidant coping style, a poor ability to self-regulate, a psychiatric or trauma history, and is generally alone, the necessity of intervention is increased (Brock, 2002; Brock, et al., 2009).

In looking at these vulnerability risk factors, care providers must also consider cultural and developmental variations. Culture (e.g., socioeconomic status, religion, community location) influences the types of events that appear to be threatening and affects how individuals assign meaning to a threat. It also impacts how individuals or communities express traumatic reactions, and how the affected individuals or communities are viewed or judged. The care provider must

be aware of the cultural differences and seek the assistance of community cultural leaders for guidance (Sandoval & Lewis, 2002). While crisis interveners should be mindful of the variability in cultures, they should also be aware that their own frame of reference might differ from those affected by the critical incident. Similarly, the individual's view of the responder is to be considered. In some cases, a female crisis responder might not be able to provide support to a male in crisis based on cultural parameters.

The responses of preschoolers and early elementary students often relate more to the reactions of their parents. These individuals are also more vulnerable to psychological trauma, due in part to less sophisticated coping skills and reasoning abilities. These students may demonstrate more regression in achieved milestones (e.g., self-toileting), reduced ability to separate from a caregiver, and increased acting out behaviors (e.g., tantrums, fighting with peers). Trauma-related play is often present, appearing as frightening themes (e.g., monsters) for preschoolers and more direct reenactments of the critical incident for school-age children (Berkowitz, 2003; Cook-Cottone, 2004; Dulmus, 2003; Joshi & Lewin, 2004; Yorbik, et al., 2004). Older students have more developed abstract reasoning skills. As a result, their crisis reactions are more adult-like. They too might demonstrate more resistant and aggressive behaviors, though this is generally as a means to reassert control. Self-injurious or risky behavioral choices or thoughts can increase, as can revenge fantasies. Such maladaptive coping behaviors may decrease the individual's ability to concentrate, regulate emotions and ultimately impact his or her academic progress (Berkowitz, 2003; Cook-Cottone, 2004; Dulmus, 2003; Joshi & Lewin, 2004; Yorbik, et al., 2004). Although these behaviors are typically temporary, intervention should be considered.

Once the variables are fully assessed, students' levels of risk are documented to ensure the appropriate level of intervention. For instance, an individual who had limited proximity (physical, emotional), no personal vulnerabilities, a typical response to the situation and a healthy perception of the threat, as well as adaptive coping skills would be considered a low risk. Conversely, if a student was directly involved in the incident, has preexisting trauma history, no network of outside support, and is demonstrating continued maladaptive coping strategies, he or she would be considered a high risk and therefore a high priority for intervention.

Supports and Interventions

After these initial steps of triage have been documented, the crisis responders would begin to provide psychoeducational supports or psychological interventions. Again, these measures are only taken for those who demonstrate substantial need. Psychoeducation is the direct instruction and/or dissemination of information with the goal of having crisis survivors and their caregivers being able to understand, prepare for, and respond to the critical incident, as well as acknowledging the challenges and common responses typically associated with trauma. These sessions can take place through informational bulletins, caregiver trainings, classroom meetings, and student psychoeducational groups (Brock, et al., 2009; Reeves, Kanan, & Plog, 2010). Providing informational handouts to parents and teachers has been debated because of the lack of empirical support (Pagliocca & Nickerson, 2001; Vernberg & Vogel, 1993; Vogel & Vernberg, 1993). However, opportunities for parents/guardians to participate in caregiver training sessions result in improved coping and reduced psychopathology (Pynoos, Steinberg, & Goenjian, 1996).

Psychological interventions differ from psychoeducational supports primarily because they allow for the impacted individual to share their own trauma stories, thoughts, perceptions,

feelings, and reactions. As a result, these are more active and direct attempts to foster adaptive coping and respond to symptoms of trauma-related stress. Psychological interventions are provided to those individuals who were assessed to be at higher risk. The goal is to reestablish immediate functional coping and not the resolution of the crisis. The interventions are designed to help students cope with problems stemming from the trauma and facilitate referrals to more intensive therapeutic treatments if necessary. Crisis responders should know when, where and how to refer for outside supportive services (Brock & Jimerson, 2004). Data supports that children with posttraumatic stress disorder who participate in psychotherapy, particularly treatment using cognitive-behavioral approaches, yield better outcomes than those who do not receive the intervention (March, Amaya-Jackson, Terry, & Costanzo, 1997). Trauma-focused therapies should be considered as the first treatment for individuals with PTSD (Cohen, et al., 2010). In other situations, students may be referred for cognitive-behavioral therapies such as anxiety management training or eye-movement desensitization and reprocessing (EMDR). Participation in a group-delivered program such as cognitive-behavioral intervention for trauma in schools (CBITS) may also be explored (Brock, et al., 2009; Cohen, et al., 2010). In combination with ongoing psychotherapy, psychopharmacological interventions can be used. These are most appropriate for individuals who do not respond to the other interventions and can be modified to meet the specific symptomology of the student (Brock, et al., 2009; Cohen, et al., 2010).

Role of School Psychologists

As highly trained school-based mental health specialists, school psychologists are in the unique position to support student progress in a variety of areas. Their expertise extends beyond assessment and NASP recognizes the need to broaden the perception of our role (e.g., NASP,

2015; Kalamaros Skalski, Vaillancourt Strobach, Rossen & Cowan, 2015). Concurrently, there is increased awareness of the need for effective crisis prevention and intervention in schools (Allen et al., 2002; Brock, et. al., 2009; Brock, Sandoval & Lewis, 2001; Brock, 1998; Dwyer, Osher, & Hoffman, 2000; Klicker, 2000; Malley, Kush, & Bogo, 1994; Poland & McCormick, 2000; Wittmer, 2000). Less than thirty years ago, responsibility for school crisis intervention was not clearly defined; community mental health professionals, in fact, provided the bulk of mental health care for students impacted by crises (Johnson, 2000). However, many school districts are now increasingly relying on professionals within school systems, such as school psychologists, for crisis intervention services (Brock, et. al., 2009; Brock, Sandoval & Lewis, 2001; Heslip, 2015; Johnson, 2000; Poland, 1994).

Although there is heightened emphasis on crisis response in the schools, the field of school crisis intervention is still relatively young. Education and training have not kept pace with the mounting need for the application of crisis intervention skills in the schools. A national survey conducted by Berman (1983) revealed that few professional schools, specifically programs for health and other human service professionals, included formal coursework on crisis theory and practice (Hoff & Hoff, 2012). More recently, Allen, et al. (2002) conducted a study of Nationally Certified School Psychologists regarding different aspects of crisis intervention, including university preparation, continuing education, and involvement with school crisis plans and crisis teams. The majority of those who received university training believed they were minimally or not at all prepared to respond to a school crisis; only 2% indicated feeling well-prepared or very well-prepared. Roughly 80% of school psychologists engaged in professional development trainings focused on crisis intervention. Only 53% of the respondents who worked in districts with established crisis plans were members of the crisis team. As a result, many

school psychologists feel they have inadequate training for the crisis intervener role (Allen, 2002; Brock et al., 2009; King, Price, Telljohann, & Wahl, 2000), or that they prefer an administrator take the lead in intervention (Dean & Burns, 2004). Research assessing future school administrators' perceptions of the role of school-based mental health services provider, indicated that responding to crisis and working with teachers in crisis situations were of primary importance (Fitch, Newby, Ballestero & Marshall, 2001). Graduate educators can use this information in preparing school psychologists to better fulfill the expectations of their positions. Because school administrators often view crisis management as an essential task, specific training in that area should be available.

The competent handling of a crisis can forge a strong relationship within the school community. The unifying experience a critical incident presents creates an opportunity for connection. However, trivializing or ignoring the effects of crisis implies that the situation was not meaningful enough for the school to acknowledge, or suggest that the crisis was so tremendous that school staff were not able to deal with it directly.

Considering this background of crisis history, self-efficacy theory, crisis response protocols, and legislative mandates, the current research sought to evaluate the influence of PREP^{a}RE training on school psychologists' crisis-related knowledge and self-efficacy.

CHAPTER 3

METHOD

Participants

In order to obtain a reasonable response rate and sample size, the researcher contacted the leadership (e.g., presidents and presidents-elect) of the 50 state associations of school psychologists requesting the survey be disseminated to each state's individual membership; follow up emails were sent approximately two and four weeks after the initial contact effort. Additional contacts were made through professional networking. Respondents were incentivized by the researcher's commitment to donate $1.00 (up to $150) to the NASP Children's Fund for each completed survey.

As seen in Table 1, the resulting participants included a random sample of 254 practitioners who are members of individual state associations of school psychologists or associates of the researcher. A review of the submissions indicated that respondents did not select answers to all appropriate items, with an average of 3.5 omissions per item (range: 0-12; *SD*: 2.58). Consequently, the percentages calculated for the various analyses were not necessarily based on the full sample size ($N = 254$); instead, the percentages were based on the number of responses given to the specific items. Seventy-seven percent of participants were specialist level practitioners and 23% held doctoral degrees. The majority of respondents had 10 or fewer years in practice (range: 1-26+; *SD*: 1.76). Forty-nine percent of respondents reported working in a suburban setting, while 29% reported either an urban or rural setting. Participants indicated all age groups with whom they primarily work (or worked): 28% preschool; 68% elementary (k-5); 49% middle (6-8); 46% high (9-12); 1% college; 3% faculty/graduate trainer; 3% retired.

Table 2 summarizes the respondents' participation in PREP^{a}RE trainings. Ten percent reported participating in only PREP^{a}RE Workshop 1, 2% participated in only PREP^{a}RE Workshop 2, and 22% participated in both PREP^{a}RE workshops; 66% indicated no participation in any PREP^{a}RE workshop. Regrettably, this is not remarkably reflective of the national average. In 2014, Castillo, Curtis and Tan estimated the number school psychologists to be approximately 43,000. A current article for the *Communiqué* (Fernandez & Brock, in press) estimated that approximately 20% of practitioners have participated in Workshop 1, and 25% participated in Workshop 2. The data regarding school psychologists who participated in both PREP^{a}RE workshops was not available. Of the 87 respondents who identified attending a PREP^{a}RE training, 44% of respondents reported that the workshop was facilitated by at least one author of the PREP^{a}RE curricula, or at least one member of the NASP School Safety and Crisis Response Committee (SSCR), or both a PREP^{a}RE author and a member of the NASP SSCR. Thirty-three percent noted that neither a PREP^{a}RE author nor a member of the NASP SSCR conducted their training.

Table 1
Number and Percent of Sample Demographics

Variable (n)	*N*	*Percentage*	
Grade Level Served*			
Preschool		70	28
Elementary (K-5)		174	68
Middle (6-8)		126	49
High (9-12)		118	46
College		3	1
Faculty/Graduate Trainer		8	3
Retired		7	3
Years of Experience (251)			
1-5		77	31
6-10		52	21
11-15		41	16
16-20		26	10
21-25		20	8
26+		35	14
Highest Degree (255)			
Specialist level	196	77	
Doctoral level	59	23	
School District Setting (253)			
Urban	57	29	
Suburban	123	49	
Rural	73	29	
Provided a response to a crisis within the last five years (253)			
Yes	200	79	
No	53	21	

Table 1 (Continued)

Variable (n)	*N*	*Percentage*
State of Practice		
Alabama	2	0
Alaska	2	0
Arizona	1	0
Arkansas	7	3
California	4	2
Colorado	1	0
Connecticut	9	4
Delaware	6	2
Georgia	1	0
Idaho	6	2
Illinois	1	0
Indiana	6	2
Kansas	3	1
Kentucky	6	2
Louisiana	9	4
Massachusetts	26	10
Michigan	1	0
Mississippi	1	0
Nebraska	16	6
New Hampshire	2	1
New Jersey	37	15
New York	39	16
North Carolina	13	5
North Dakota	5	2
Ohio	15	6
Oklahoma	4	2
Oregon	1	0
South Carolina	2	1
South Dakota	14	6
Texas	2	1
Virginia	2	1
Washington	2	1
West Virginia	1	0
Wyoming	4	2

**These results total more than 100% as respondents could select more than one indicator.*
Note: Percentages may not equal 100% due to rounding.

Table 2
Number and Percent of Sample Attending Various Types of PREP²RE Training

Variable (n)	*N*	*Percentage*
PREP²RE Workshop (252)		
No participation	165	66
Workshop 1 only	25	10
Workshop 2 only	6	2
Workshops 1 and 2	56	22
PREP²RE Trainer (87)		
At least one author of the PREP²RE curricula, or at least one member of the NASP School Safety and Crisis Response Committee, or both a PREP²RE author and a member of the NASP School Safety and Crisis Response Committee	46	44
Neither a PREP²RE author and a member of the NASP School Safety and Crisis Response Committee	34	33

Table 3 refers to the various training opportunities in which respondents took part. Approximately 66% of respondents indicated having received training in crisis prevention through university/college coursework, while 61% received training in crisis intervention and 56% received training in crisis postvention. Many respondents reported receiving some post-graduate training through seminars or workshops (either PREP²RE specifically or excluding PREP²RE). Only 2% of all respondents cited having received no training at all in crisis prevention, while 4% reported having no training in crisis intervention and 6% specified having no training in crisis postvention.

Table 3
Training Opportunities (*n* and percentage)

	Crisis Area					
Variable	*Crisis Prevention*		*Crisis Intervention (Including Psychological Triage)*		*Crisis Postvention*	
	n	%	*n*	%	*N*	%
University or college degree coursework	167	66	154	61	142	56
Workshops or seminars, specifically PREPaRE	87	34	82	32	78	31
Workshops or seminars, excluding PREPaRE	157	62	148	59	145	57
Consultation with colleagues	182	72	163	64	155	61
Internet websites	89	35	78	31	72	28
None	4	2	10	4	15	6
Other	47	19	45	18	32	13

**These results total more than 100% as respondents could select more than one indicator.*
Note: Percentages do not equal 100% due to rounding.

As seen in Table 4, the majority of survey participants whose schools have a crisis management plan are involved in the evaluation/intervention (61%) or postvention (54%) sections. Twenty-two percent of respondents were not at all involved in the crisis management plan. Similarly, most of the survey participants whose schools have a crisis response team are involved in the evaluation/intervention (68%) or postvention (61%) phases. Twenty-one percent of respondents were not at all involved in the crisis response team. These results are aligned with those found by Nickerson and Zhe (2004) in that the majority of respondents were involved with the implementation of services as opposed to the development of response protocols.

Seventy-nine percent of current participants stated they have encountered a crisis situation within the last five years. The survey also requested that participants report on their involvement in crisis planning and responding, as well as the frequency to which they encountered specific crisis situations (Table 5). Survey respondents cited having the most direct experience with student serious illness/injury (77%), unexpected student death (73%), suicide attempts (73%), and student-student physical assault (71%). Less than 10% of current respondents reported direct experience with an industrial disaster (5%), kidnapping (6%), airplane crash (6%), or war (8%). Although the numbers from the present study are higher, the

results are comparable to Nickerson and Zhe's study (2004) wherein respondents cited having the most direct experience with student–student physical assaults, serious illness or injury of students, unexpected student death, suicide attempts, and guns or other weapons at school.

Further, participants were asked to designate the degree of importance they felt various factors had on building levels of crisis-related knowledge and self-efficacy. Tables 6 (knowledge) and 7 (self-efficacy) represent the results, rank ordered from most important to least important. On both variables, participants rated practical experience responding to crisis events, collegial support, and trainings (specifically PREPaRE) as the top three elements necessary to develop crisis preparedness and/or response skills. Independent study was seen as the least important factor.

Table 4
Number and Percent of Sample Demographics Relative to Crisis Management Plan and Crisis Response Team

Variable (n)	*n*	*Percentage*
Crisis Management Plan		
School has a plan (251)		
Yes	187	75
No	34	14
Not Sure	30	12
The plan has been practiced or implemented (183)		
Yes	138	76
No	25	14
Not sure	20	11
Effectiveness of the plan (143)		
Very effective	25	18
Effective	108	76
Ineffective	10	7
Very ineffective	0	0
Role in the plan*		
No role	44	22
Development	70	26
Prevention	96	49
Evaluation/Intervention	121	61
Postvention	106	54
Exercise of the crisis plan (199)		
Never	41	21
Monthly	29	15
Twice per month	10	5
Twice per year	39	20
Once per marking period (i.e., three to four times per year)	33	17
Yearly	47	24

Table 4 (Continued)

Variable (n)	*n*	*Percentage*
Crisis Response Team		
School has a team (254)		
Yes	186	73
No	28	11
Not Sure	40	16
The team has been mobilized (187)		
Yes	134	72
No	33	18
Not sure	20	11
Effectiveness of the team (139)		
Very effective	38	27
Effective	96	69
Ineffective	5	4
Very ineffective	0	0
Role in the team*		
No role	39	21
Development	67	36
Prevention	79	42
Evaluation/Intervention	127	68
Postvention	114	61
Exercise of the crisis team (192)		
Never	67	35
Monthly	20	10
Twice per month	7	4
Twice per year	27	14
Once per marking period (i.e., three to four times per year)	28	15
Yearly	43	22

**These results total more than 100% as respondents could select more than one indicator.*

Note: Percentages may not equal 100% due to rounding.

Table 5
Frequency of Responses to Specific Types of Crises Rank Ordered by Most Direct Experience to Least Direct Experience

	Frequency of occurrence (expressed in %)				
Variable	*Daily*	*Weekly*	*Monthly*	*< 5 times per school year*	*Never*
Student serious illness/injury	1	2	6	68	23
Unexpected student death	0	0	1	72	27
Suicide attempt	0	1	10	62	27
Student-student physical assault	1	6	16	48	29
Unexpected school staff death	0	0	2	61	38
Completed suicide	0	0	1	47	52
Gun/weapon at school	0	0	0	46	53
Student-staff physical assault	1	3	5	36	56
Natural disaster	0	0	2	29	70
Sexual assault/rape	0	0	2	27	71
Homicide	0	0	2	22	77
Robbery/mugging	0	0	1	17	83
Fire/arson	0	0	0	15	84
Terrorist attack	0	0	0	10	90
War	0	0	1	7	92
Airplane crash	0	0	0	5	94
Kidnapping	0	0	0	5	94
Industrial disaster	0	0	1	4	95

Note: Percentages do not equal 100% due to rounding.

Table 6
Importance of Specific Factors in Building Crisis-Related Knowledge Rank Ordered by Most Importance to Least Importance

	Importance Modifier (expressed in %)				
Variable (n)	*Extremely Important*	*Very Important*	*Important*	*Somewhat Important*	*Not Important*
Practical experience responding to crisis events (254)	49	37	11	2	1
Collegial support, including professional supervision (254)	43	37	19	1	0
Trainings, specifically PREPaRE (248)	34	28	19	7	2
Trainings, excluding PREPaRE (248)	23	46	26	4	1
University or college degree coursework (248)	10	27	35	26	2
Total years of experience as a practicing school psychologist (254)	9	26	32	28	6
Independent Study (250)	8	21	44	21	6

Note: Percentages do not equal 100% due to rounding

Table 7
Importance of Specific Factors in Building Crisis-Related Self-Efficacy Rank Ordered by Most Importance to Least Importance

	Importance Modifier (expressed in %)				
Variable (n)	*Extremely Important*	*Very Important*	*Important*	*Somewhat Important*	*Not Important*
Practical experience responding to crisis events (254)	50	37	11	2	0
Collegial support, including professional supervision (254)	42	42	15	2	0
Trainings, specifically PREP²RE (248)	34	37	22	6	1
Trainings, excluding PREP²RE (248)	24	43	27	6	1
Total years of experience as a practicing school psychologist (254)	12	29	32	22	6
University or college degree coursework (248)	11	26	37	25	1
Independent Study (250)	7	20	40	26	6

Note: Percentages do not equal 100% due to rounding.

Measure

This study used a survey developed by the principal investigator for the current research. It was based on existing theoretical and empirical information about crisis preparedness, prevention, intervention, and postvention. The primary PREP^{a}RE authors and the Director of Special Services for a public schools district reviewed preliminary versions of the measure. It was pilot tested with 10 practitioners and assessed for comprehensiveness, usability, and completion time (approximately 10-15 minutes). Risks were minimal. However, a disclaimer was included to note that crisis response scenarios may elicit emotional reactions.

In addition to collecting demographic information, the 43-item survey included questions regarding awareness of, and participation in, school crisis management activities, and participation in PREP^{a}RE training. It also assessed (a) levels of knowledge of crisis prevention, intervention, postvention, and psychological triage; (b) previous training received in crisis prevention, intervention, postvention, and psychological triage; and (c) perceived confidence related to crisis prevention, intervention, postvention, and psychological triage, as well as related factors for building knowledge and confidence. Four scenarios adapted from the PREP^{a}RE training materials were used to evaluate respondents' skill level for responding to various components of crises.

For the majority of the items, respondents were required to select their answer choice from a standard list of options or to provide an "other" answer. Ratings of knowledge and confidence ranged from *expert level* to *little or no knowledge*, or *extremely confident* to *not confident*, respectively. The importance of having a preservice course solely focused on crisis preparedness and/or response provided a range of options from *extremely important* to *not important*. The crisis response scenarios were adapted from the training materials of Workshop 1

(Crisis Prevention and Preparedness: Comprehensive School Safety Planning) and Workshop 2 (Crisis Intervention and Recovery: The Roles of School-Based Mental Health Professionals). For each of the four situations, two reasonable suggestions were offered and respondents were asked to select which was most like how they would respond in a similar scenario.

Procedure

After obtaining approval from the Fairleigh Dickinson University Institutional Review Board, the researcher contacted the leadership (e.g., presidents and presidents-elect) of the 50 state associations of school psychologists via email. With approval from each individual association's designee (e.g., president, research coordinator), the Google™ Form survey was disseminated electronically (e.g., email, website posting) and accessible for up to approximately six weeks. Results were collected anonymously. Only the researcher and dissertation committee had access to the data.

CHAPTER 4

RESULTS

Using the demographic information, respondents were assigned to two main categories: those who participated in both PREP^{a}RE workshops and those who did not attend any workshop session. The group who received PREP^{a}RE training was further subdivided to reflect those whose training was facilitated by at least one author of the PREP^{a}RE curricula or a member of the SSCR and those whose training was not conducted by a perceived expert. Individual item responses as well as cluster scores were generated for like-themed items (i.e., a *knowledge cluster* for Questions 18-21; a *self-efficacy cluster* for Questions 31-35; a *training cluster* for Questions 22-24). ANOVA tests were used to examine any between-group differences on clusters and items. Paired *t*-tests were used to examine any within-group differences on clusters and items. When significant differences were found to exist between the two main categories, item analyses were conducted to evaluate the specific questions within a cluster that may have caused the variances. Further, frequency distributions (number and percent) were calculated for clusters and items to better understand differences between group results. For purposes of the analysis, only those who indicated participation in both PREP^{a}RE workshops were included in the calculations.

Table 8 presents the means, standard deviations, and difference between the Knowledge cluster and Self-Efficacy cluster Total and Items for those who Attended and Did Not Attend PREP^{a}RE workshops. As seen, the Knowledge cluster and four Knowledge item scores for those who attended PREP^{a}RE workshops were generally higher than for those who did not attend. The differences in scores ranged from .2 points (Question 4) to .72 points (Question 2). Statistically significant ($p < .01$) higher results were found between the total Knowledge cluster score and

Questions 1 and 2 when compared between individuals who participated in both PREP^{a}RE workshops to those who did not receive such training. For the individuals who did not attend PREP^{a}RE workshops, no significant differences were found between the scores obtained on each of the Knowledge cluster items. Item analysis revealed for those who participated in both PREP^{a}RE workshops there was a statistical significance difference ($p < .01$) between levels of knowledge in favor of crisis prevention (difference = .50) and crisis intervention (difference = .55) when compared to psychological triage. Results did not indicate any statistically significant within-group or between-group differences concerning levels of crisis-related self-efficacy for school psychologists who participated in both PREP^{a}RE workshops and those who did not receive such training.

Table 8
Means, Standard Deviations, and difference between the Knowledge and Self-Efficacy Cluster Totals and Items for those Attending and Not Attending PREP^{a}RE workshops

	PREP^{a}RE Training				
	Attended		Did Not Attend		
Variable	*M*	*SD*	*M*	*SD*	Difference
Knowledge					
Total	3.43	0.69	2.96	0.68	0.47*
Q1: Crisis Prevention	3.62	0.87	2.97	0.90	0.65*
Q2: Crisis Intervention	3.68	1.05	2.96	1.08	0.72*
Q3: Crisis Postvention	3.29	1.09	2.99	1.02	0.30
Q4: Psychological Triage	3.13	1.21	2.93	1.02	0.20
Self-Efficacy					
Total	3.04	0.66	3.18	0.60	-0.14
Q1: Crisis Prevention	3.22	0.98	3.26	1.04	-0.04
Q2: Crisis Intervention	3.09	1.12	3.11	1.12	-0.02
Q3: Crisis Postvention	2.88	1.11	3.17	1.04	-0.29
Q4: Psychological Triage	2.98	1.12	3.20	1.10	-0.22

Note: For those who Attended a PREP^{a}RE Training, significant differences ($p < .01$) were found between Knowledge Q1 versus Q4 and Knowledge Q2 versus Q4

For Between group differences: * = $p < .05$

Table 9 presents the means, standard deviations, and difference between the Knowledge cluster and Self-Efficacy cluster Total and Items for those whose PREP^{a}RE workshops were facilitated by at least one author of the curricula or at least one member of the SSCR and when the training was not conducted by a perceived expert. As seen, the Knowledge cluster and four Knowledge item scores for those whose PREP^{a}RE workshops were conducted by a perceived expert were generally higher than for those sessions were not. The results found statistically

significant ($p < .01$) higher scores between the total Knowledge cluster score and Questions 1 and 2 when compared between those who attended PREP^{a}RE workshops that were. The differences in scores ranged from -.03 points (Question 4) to -.66 points (Question 2). For the individuals who did not receive training from a perceived expert, no significant differences were found between the scores obtained on each of the Knowledge cluster items. Item analysis for those whose training was presented by a perceived expert revealed a statistically significant difference ($p < .01$) between levels of knowledge in favor of crisis prevention (difference = .52; difference = .59) and crisis intervention (difference = .48; difference = .54) in comparison to crisis postvention and psychological triage respectively. Results did not find any statistically significant difference between levels of crisis-related self-efficacy based on the perceived expertise of the presenter.

Table 9
Means, Standard Deviations, and difference between the Knowledge and Self-Efficacy Cluster Totals and Items Based on the Perceived Expertise of the Presenter

	PREP^{a}RE Training done by				
	Author or Member of SSCR		Other		
Variable	*M*	*SD*	*M*	*SD*	Difference
Knowledge					
Total	3.54	0.62	3.10	0.66	-0.44*
Q1: Crisis Prevention	3.83	0.74	3.21	0.69	-0.62*
Q2: Crisis Intervention	3.78	0.96	3.12	1.09	-0.66*
Q3: Crisis Postvention	3.30	1.01	3.12	1.05	-0.18
Q4: Psychological Triage	3.24	1.04	2.94	1.21	-0.03
Self-Efficacy					
Total	3.10	0.69	2.99	0.58	-0.11
Q1: Crisis Prevention	3.30	0.99	3.15	1.09	-0.15
Q2: Crisis Intervention	3.13	1.25	3.03	1.06	-0.10
Q3: Crisis Postvention	2.98	1.20	2.88	1.04	-0.10
Q4: Psychological Triage	3.00	1.16	2.91	1.11	-0.09

Note: For those who Attended a PREP^{a}RE Training, significant differences ($p < .05$) were found between Self-Efficacy Q1 versus Q3 and Q4, and between Q2 versus Q3 and Q4.

* $p < .01$

Supplemental analyses were conducted to examine school psychologists' crisis-related knowledge and self-efficacy as measured by responses to the crisis scenarios. As seen in Table 10, participants were typically able to deduce the correct answers to the vignettes and cited confidence in being able to respond in similar fashion should they be presented with a comparable situation in practice. Gradients of confidence were provided as options, including a more absolute selection of *not confident.* Approximately the same percent of respondents rated

themselves as *extremely confident* as those who rated themselves as *not confident.* Roughly 40% of respondents consistently indicated a neutral level of confidence.

Table 10
Scenario Results (*n* and percentage) of Accurate Responses and Confidence Levels of Individual Respondents

	Scenario 1		Scenario 2		Scenario 3		Scenario 4	
Responses	*n*	%	*n*	%	*N*	%	*n*	%
Correct	239	95	216	85	191	76	213	86
Incorrect	13	5	38	15	59	24	34	14
Response Option								
Extremely Confident	22	9	17	7	10	4	15	6
Very Confident	75	30	67	26	56	22	67	27
Confident	89	36	101	40	94	38	94	38
Somewhat Confident	51	21	59	23	66	26	63	25
Not Confident	12	5	10	4	25	10	10	4

Note: Percentages may not equal 100% due to rounding.

CHAPTER 5

DISCUSSION

In order to address current concerns in the literature that school psychologists may not be adequately prepared to respond to individuals in crisis, despite the increased requirements for schools to develop crisis management protocols and recognition for having school-based service providers serve as first responders, the goal of this research was to examine strategies for increasing the crisis-related knowledge and self-efficacy levels of school psychologists. Specifically, this study was designed to determine the impact of participation in PREP^{a}RE training on school psychologists' knowledge of crisis prevention, intervention, postvention, and psychological triage, as well as their skills for responding to individuals in a variety of crisis scenarios.

Data revealed that participation in PREP^{a}RE training was effective in increasing levels of crisis-related knowledge in the areas of prevention and intervention. No differences were found in levels of crisis-related knowledge in the areas of postvention or psychological triage. Likewise, no differences were indicated on any of the four factors that examined variations in crisis-related self-efficacy. Additionally, when participants received training from a perceived expert (e.g., an author of the PREP^{a}RE curricula, member of the SSCR), data revealed statistically significant gains in crisis-related knowledge in the areas of prevention and intervention. No differences were indicated in crisis-related knowledge in postvention or psychological triage. Likewise, no differences were indicated on any of the four factors when evaluated for variations in crisis-related self-efficacy. These conclusions are explored further in relation to each of the hypotheses.

The average responses to the components of the Knowledge cluster differed based on participation in PREP[a]RE training. Item analysis examined on which of the four contributing factors (e.g., prevention, intervention, postvention, psychological triage) the groups significantly differed. Participation in PREP[a]RE training substantially increased crisis-related knowledge in the areas of prevention and intervention. No significant differences were found in school psychologists' knowledge of how to conduct psychological triage or postvention services. Within-groups responses were evaluated and mirror the between-groups results. School psychologists who participated in PREP[a]RE training rated their crisis-related knowledge higher in the areas of prevention and intervention in comparison to psychological triage. There was no statistical difference for items addressing postvention.

There were no differences in the average responses to components of the Self-efficacy cluster based on participation in PREP[a]RE training. This suggests that individuals perceived themselves as equally confident to respond to crisis situations regardless of their attendance in PREP[a]RE training. However, it is possible that the results were confounded by response-shift bias. Howard (1980) posited that measures of self-report, such as the current survey, may be influenced by this instrumentation effect. Response-shift bias refers to the notion that an individual may feel less capable in addressing a topic once he or she recognizes how much more extensive it is than they had previously realized. The concept has been replicated and expanded on in multiple studies (e.g., Drennan & Hyde, 2008; McPhail & Haines, 2010; Rapkin & Schwartz, 2004; Rohs, 1999; Sibthorp, Paisley, Gookin & Ward, 2007). It is conceivable, then, that respondents who attended PREP[a]RE training were exposed to a more broad scope of crisis management than those who have not attended the workshops, which may have altered their internal frame of reference. In other words, until they participated in the workshops, the

respondents did not realize how much they did not experience. As a result, they may have rated themselves lower on the self-efficacy items due to lack of practical exposure or personal involvement in addressing the gamut of critical incidents.

Results suggested that the average responses to the components of the Knowledge cluster differed based on the perceived expertise of the PREP²RE trainer. Item analyses examined on which of the four contributing factors (e.g., prevention, intervention, postvention, psychological triage) the groups differed significantly. The perceived expertise of the PREP²RE trainer substantially increased crisis-related knowledge in the areas of prevention and intervention. No significant differences were found in school psychologists' knowledge of how to conduct psychological triage or postvention services. Within-groups responses revealed similar results to the between-groups findings. School psychologists who received PREP²RE training from a perceived expert rated their crisis-related knowledge higher in the areas of prevention and intervention in comparison to both postvention and psychological triage.

There were no differences in the average responses to the components of the Self-efficacy cluster based on the perceived expertise of the PREP²RE trainer. This suggests that individuals believe themselves to be equally confident in responding to crisis situations regardless of the perceived expertise of the presenter. This rating may have also been influenced by response-shift bias.

The current study sought to determine whether participation in the individual PREP²RE workshops resulted in differential levels of crisis-related knowledge and self-efficacy. It was hypothesized that participation in both Workshops 1 and 2 would produce the highest levels of crisis-related knowledge and self-efficacy when compared to participation in a single workshop (i.e., only Workshop 1 or only Workshop 2). Unfortunately, the responses to the survey that were

received did not yield a significant sample size to be able to perform meaningful statistical analyses.

Implications

School psychologists' knowledge of crisis prevention and intervention increases significantly as a result of participation in PREP²RE training. Likewise, knowledge of crisis prevention and intervention significantly increases when a perceived expert facilitates the workshop. However, there was no concomitant increase in knowledge as related to crisis postvention or psychological triage, or self-efficacy. Future editions of PREP²RE training materials might include ways to reinforce these areas.

It should be noted, however, that self-efficacy is also an individual perception, which means that the baseline level of confidence people express can vary considerably from one respondent to the next. Not knowing how much confidence someone expresses across a range of situations makes it difficult to discern if the self-efficacy rating reflects the individual's knowledge or personality as people generally act more confidently when they know more about a topic and less so when the topic is unfamiliar. According to Bandura (1995), self-efficacy can be considered as a person's perception of competence or confidence to respond appropriately in any given scenario. It is possible, then, that the consistent self-efficacy ratings were due to something other than participation in PREP²RE training. The respondents' perceptions of confidence can be extended from positive self-beliefs related to performance in other professional roles (e.g., assessment, counseling), positive resolution of previous crisis experiences, or an increased level of training. The data obtained from this survey indicate that the majority of respondents have been practicing for less than a decade, which means they were likely matriculated in graduate training programs during the early 2000s and 2010s. This implies that the particular group of

professionals attended training programs at a time in which crisis intervention was more emphasized than had been at the time of the research conducted by Berman (1983) or Allen, et al (2002), which may relate to higher baseline levels of knowledge and/or self-efficacy. Supplemental analysis was conducted to explore this suspicion. Results indicated that those with more experience (i.e., have been practicing school psychologists for eleven or more years) rated themselves higher in crisis-related knowledge in the areas of prevention and intervention. No differences were found in crisis postvention, psychological triage, or crisis-related self-efficacy. Frequency distributions were examined for both items where a significant difference was found between groups. Results were similar in that the majority (approximately 80%) of respondents who rated themselves as having an *Expert Level* of knowledge were more senior in experience. In contrast, the majority (approximately 65%) of those who rated themselves as being *Somewhat Knowledgeable* were relatively new to the profession (i.e., 1-10 years of experience).

Self-efficacy ratings suggest that school psychologists feel more confident providing crisis intervention than conducting psychological triage or postvention services, regardless of participation in PREPaRE training. This suggests that school psychologists may be more adequately prepared, or at least more comfortable, to provide immediate supports as opposed to continuing or aftermath services. This could be due, in part, to the counseling training that is included in most preservice programs or the amount of school-based supportive treatment inherent in a practitioner's schedule. Dealing with an individual during a crisis typically involves the use of counseling techniques; this is not always the case during widespread crises, which may require alternate skills. Additionally, school psychologists often have competing priorities for their time and might not have the availability to continue to consistently and earnestly work with an individual after the initial crisis has abated.

Respondents reported very little to no experience with several crises such as a terrorist attack, war, airplane crash, kidnapping, or industrial disaster. It is probable, then, that school psychologists would feel more confident in providing intervention for a personal or individual crisis rather than a larger-scale critical incident. This was echoed in the self-efficacy ratings from the crisis scenarios. Participants rated higher levels of confidence in addressing situations when fewer individuals were affected than when the crisis was something less frequent (e.g., gang-related). Respondents demonstrated the least amount of confidence when asked to evaluate crisis preparedness measures; this could be related to the minimal experience reported regarding participation in the development or evaluation of comprehensive response plans. Again, Bandura (1982) hypothesized that an individual's self-efficacy is reinforced by performance outcomes. Previous positive experiences, either direct or vicarious, can increase perceptions of self-efficacy. If an individual has not been exposed to a challenging situation, he or she may not feel sufficiently confident to address it.

A significant number of participants indicated having received some training in crisis response and the overwhelming majority (79%) noted having responded to a crisis within the last five years. It is possible that school psychologists may be compensating for their lack of graduate training by seeking out additional opportunities for professional development in crisis response. This could result in a higher baseline level of crisis-related knowledge and self-efficacy. It could be that those engaging in trainings may already be providing more crisis response services and therefore have increased levels of knowledge and confidence. In other words, those with more crisis response experiences may have greater self-confidence or feelings of competence. School psychologists with greater self-efficacy may be directly or indirectly seeking out more experiences to provide crisis intervention services (e.g., Bandura, 1982). Another conceivable

interpretation is that those who recognize a higher demand for crisis intervention services may be seeking out additional training to meet the needs of their specific school or community population. It follows that effective training in combination with positive experiences with crisis intervention have given these professionals the confidence to provide such services, even if uncertain of how to address the critical incident. This reinforces Bandura's (1982) self-efficacy theory as a determinant of human behavior.

The perceived expertise level of the presenter did not have a significant effect on the ratings of crisis-related knowledge in the areas of crisis postvention and psychological triage, or overall perceptions of self-efficacy. Therefore, it follows that the ToT component of PREP²RE is effective. However, given that the PREP²RE curricula were designed for delivery of consistent training experiences, the differences in the ratings of crisis-related knowledge prevention and intervention were unexpected. Each workshop follows a script with sample language to ensure a consistent and standardized presentation of information. Facilitators are encouraged to make individual modifications (e.g., relaying a personal example of a response situation); perhaps it is those nuances that contributed to the increases in knowledge in the areas of crisis prevention and intervention when a perceived expert conducted the training. Two of the most effective ways to increase learning is through the use of narratives and analogies and examples (Reddy, 2015). Such personalization helps the participant to engage in the presentation and connect with the content, thus making it more meaningful and likely to be recalled. Future editions of the ToT materials could include additional commentary in the areas of crisis prevention and intervention so as to yield similarly high ratings as when a perceived expert conducts the training.

Supplemental analyses examining school psychologists' crisis-related knowledge and self-efficacy as measured by responses to the crisis scenarios revealed that participants were

typically able to reason through to the correct responses to the vignettes. The majority of respondents were also at least somewhat confident that they would be able to address a similar scenario in kind. It seems that practitioners are willing to respond to a variety of crisis situations despite not necessarily being undeniably certain in doing so. While this is encouraging and speaks to the flexibility of many practitioners and comfort in fulfilling a wide-range of professional responsibilities (e.g., NASP, 2015; Kalamaros Skalski, Vaillancourt Strobach, Rossen & Cowan, 2015), it demonstrates a discrepancy between *knowing* and *doing* and lends support for the need for more practical training, such as that provided through the PREP^{a}RE workshop series.

Limitations and Recommendations

Limitations of this study most notably surround survey methodology, such as response rate and self-report. The total number of surveys sent cannot be determined due to the private nature of the state association membership lists. Consideration should be given to the acknowledgment that some intended recipients (either as initial contacts at the leadership level or secondary contacts at the general membership level) never saw the digital request because it went directly to a spam folder. This can be likened to a hard copy survey being mailed to an invalid address. Inherent in the use of a population sample, it cannot be determined whether the responses from those who returned the survey varied substantially from those who did not choose to participate. It is possible that individuals opted to respond based on an interest in, or experience with, crisis response. In certain situations, the state associations included the survey request in a multipurpose communication to their membership. It is conceivable that the return rate was impacted by not having separate correspondence dedicated strictly to the survey. One state representative cited methodological differences as a rationale for the lower response rate.

Per report, a member of the executive board voiced disagreement with surveys being approved for research purposes, which negatively influenced participation from that state. Further, although efforts were made to acquire responses from a national sample, due to the parameters of current NASP policy and the requirements for certain state associations of school psychologists, such a sample was unattainable. It is suspected that the data obtained would generalize across state lines, though future research would be needed for confirmation.

Although the use of a digital platform is beneficial for ease of accessing the survey and recording of results, as well as financial and environmental considerations, it does present a potential limitation in that there was no way (without requiring a login) to prohibit individuals from repeatedly responding. While it is possible that an individual received a survey request more than once (e.g., is a member of two or more state associations), it is less likely that someone would have submitted a completed survey more than once. To guard against same, there was a notation within the survey for dual-certified respondents to select their primary state of practice.

Additional limitations to the study focus on the demographic items. Respondents could not indicate the specific school setting in which they work (e.g., public, private, parochial, charter). During the data collection period, it was discovered that state associations might have college-level students as members. However, the survey did not include "student" as an option. Likewise, two retirees commented in email correspondence to the researcher that their participation in the study might contaminate the data, with one offering a substantial (i.e., more than ten years) amount of time out of the school-setting as a rationale. There was no way for a respondent to record if he or she is a PREP^{a}RE author, PREP^{a}RE trainer, or SSCR member. It is

unclear what direct impact these oversights have on the obtained results but may be explored in further research studies.

The number of responses received representing the three types of PREP²RE workshop participation also limited the study. Twenty-five individuals reported taking only PREP²RE Workshop 1, while six attended only PREP²RE Workshop 2. Given this low sample size, the third hypothesis of this research could not be addressed as intended. Future studies may be able to request from NASP access to the PREP²RE databases in order to contact school psychologists who attended the individual PREP²RE workshops. The researcher would then be able to evaluate if participation in the separate trainings results in differential levels of crisis-related knowledge and self-efficacy. Alternatively, a facilitator might be able to obtain measures of crisis-related knowledge and self-efficacy from the attendees of different workshop sessions.

The present survey sought to evaluate school psychologists' perceptions of their own crisis-related knowledge and self-efficacy dependent upon participation in the PREP²RE workshops. It did not address whether or not the respondent actually implemented the PREP²RE protocols in his/her work setting. Future research may explore obtaining specific data to examine the effectiveness of PREP²RE training in practice. One of the postvention activities recommended to take place after each critical incident is for those involved to meet and review the response. Such debriefing sessions may provide anecdotal information on the strengths of the intervention(s) as well as highlight areas of the plan that need to be revisited. An evaluation of this anecdotal information may be able to serve as a foundation for the outcome data.

Summary

It is clear that school psychologists need to have highly developed skills to respond to crisis situations. Moral and legal imperatives require practitioners be able to address a wide-

range of emergency scenarios. Although more preservice programs are including coursework in crisis response, being able to access extension opportunities, such as PREP^{a}RE, remains critical for practitioners. Data from the present study revealed that participation in both PREP^{a}RE workshops leads to increases in crisis-related knowledge in the areas of prevention and intervention. It is recommended that the authors of the PREP^{a}RE curricula explore ways to reinforce specifics related to conducting psychological triage and providing postvention services, as these were areas that were not influenced by participation in the trainings. Similar results were indicated when the PREP^{a}RE training was facilitated by a perceived expert. Due to the comparable levels of knowledge in the areas of postvention and psychological triage, and overall crisis-related self-efficacy, the ToT component of PREP^{a}RE can be considered an effective turnkey training. Therefore, PREP^{a}RE is a viable professional development option for practitioners to meet the needs of individuals experiencing school-based crises.

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Appendix

The effect of PREPaRE training on school psychologists' crisis-related knowledge and self-efficacy

Dear Participant,

My name is Carlea Dries and I am a doctoral candidate at Fairleigh Dickinson University in Teaneck, NJ. With support from the NASP School Safety and Crisis Response Committee (SSCR), I am conducting a study designed to evaluate school psychologists' perceptions and knowledge of crisis prevention and response.

Your participation in this study will involve completing a web-based survey. The survey will take approximately 15 minutes to complete. Your participation will add to the research on crisis-related knowledge and individual confidence in addressing crisis situations. Completion of the survey is strictly voluntary. You may choose not to participate without any negative consequences. If you decide not to participate there will no penalty to you or loss of any benefits to which you are otherwise entitled. You may withdraw from this survey at any time by closing out of the survey and closing your browser before you submit your responses. Please note, that once you submit your responses, I will be unable to identify your specific responses to withdraw them from the study. As an incentive, and to support NASP, for every completed survey, I will make a donation of $1.00 to the NASP Children's Fund (up to $150).

Your responses will be confidential and your survey will remain anonymous. Surveys contain no identifiable information or indirect identifiers. Completion of the survey will be considered permission to use your responses in the study. Only the researcher and researcher's dissertation committee will have access to the data, though results may be published.

If you have any questions about this research study, you may contact me at Carlea@student.fdu.edu. If you have any questions about your rights as a research participant, you can call the Fairleigh Dickinson University Instructional Review Board at (201) 692-2219. This project is being completed under the supervision of Dr. Meaghan Guiney, Committee Chair, Fairleigh Dickinson University. Dr. Guiney can be reached at (201) 692-2310.

Thank you in advance for your time and assistance.

Sincerely,
Carlea Dries, M.A., M.Ed., N.C.C.
Doctoral Candidate

Demographics

The following anonymous survey will be used for research purposes. Please answer every item.

1. **1. What grade level(s) of students do you primarily serve?**
   Select all that apply
   Check all that apply.

   - [ ] Preschool
   - [ ] Elementary (K-5)
   - [ ] Middle (6-8)
   - [ ] High (9-12)
   - [ ] College
   - [ ] Faculty/Graduate trainer
   - [ ] Retired

2. **2. How would you classify your school district?**
   According to the Bureau of the Census
   Mark only one oval.

   ◯ Urban: a central city and the surrounding densely settled territory that together have a population of 50,000 or more and a population density generally exceeding 1,000 people per square mile.

   ◯ Suburban: outside a principal city and inside an urban area with a population density of 500 people per square mile.

   ◯ Rural: any territory outside of an urban area with a population of less than 500 people per square mile.

3. **3. In what state do you practice?**
If you are dual certified, please select your primary state of practice.
Mark only one oval.

- ◯ Alabama
- ◯ Alaska
- ◯ Arizona
- ◯ Arkansas
- ◯ California
- ◯ Colorado
- ◯ Connecticut
- ◯ Delaware
- ◯ Florida
- ◯ Georgia
- ◯ Hawaii
- ◯ Idaho
- ◯ Illinois
- ◯ Indiana
- ◯ Iowa
- ◯ Kansas
- ◯ Kentucky
- ◯ Louisiana
- ◯ Maine
- ◯ Maryland
- ◯ Massachusetts
- ◯ Michigan
- ◯ Minnesota
- ◯ Mississippi
- ◯ Missouri
- ◯ Montanta
- ◯ Nebraska
- ◯ Nevada
- ◯ New Hampshire
- ◯ New Jersey
- ◯ New Mexico
- ◯ New York
- ◯ North Carolina
- ◯ North Dakota
- ◯ Ohio

- ◯ Oklahoma
- ◯ Oregon
- ◯ Pennsylvania
- ◯ Rhode Island
- ◯ South Carolina
- ◯ South Dakota
- ◯ Tennessee
- ◯ Texas
- ◯ Utah
- ◯ Vermont
- ◯ Virginia
- ◯ Washington
- ◯ West Virginia
- ◯ Wisconsin
- ◯ Wyoming

4. ~~4.~~ **~~How many years of experience do you have as a school psychologist?~~**
Mark only one oval.

- ◯ 1-5
- ◯ 6-10
- ◯ 11-15
- ◯ 16-20
- ◯ 21-25
- ◯ 26+

5. **5. What is your highest degree obtained?**
Mark only one oval.

- ◯ Specialist level (e.g., MA, MS, MEd, Specialist)
- ◯ Doctoral level (e.g., Ph.D., Psy.D.)

6. **6. In which PREPaRE training did you participate?**
Mark only one oval.

- ◯ I have not participated in either Workshop (please skip to the next section)
- ◯ Workshop 1
- ◯ Workshop 2
- ◯ Both Workshops 1 and 2

7. **7. The PREPaRE training I attended was presented by**
Mark only one oval.

◯ At least one author of the PREPaRE curriculum (i.e., Stephen Brock, Melissa Reeves, Amanda Nickerson, Christina Conolly, Melinda Susan, Brian Lazzaro, Shane Jimerson, Rosario Pesce)

◯ At least one member of the NASP School Safety and Crisis Response Committee (i.e., Melissa Reeves, Amanda Nickerson, Christina Conolly, Melinda Susan, Brian Lazzaro, Shane Jimerson, Rosario Pesce, Stephen Brock, Cindy Dickinson, Ben Fernandez, Cathy Paine, Ted Feinberg, Rich Lieberman, Scott Woitaszewski, Franci Crepeau-Hobson, Shirley Pitts, Larisa Crookston, Doug DiRaddo)

◯ Neither a PREPaRE author nor a member of the NASP School Safety and Crisis Response Committee

◯ Both a PREPaRE author and a member of the NASP School Safety and Crisis Response Committee

◯ Not sure

Comprehensive Crisis Management Plan

A crisis management plan outlines the specific protocols to follow should a crisis occur. It is sometimes referred to as an emergency management plan or crisis response plan.

8. **8. Does your school have a comprehensive crisis management plan?**
If you answer "no" or "not sure" please skip to the next section. ("Crisis Response Team")
Mark only one oval.

◯ Yes
◯ No
◯ Not sure

9. **9. If you answered "yes" to the previous item, has the plan ever been practiced or implemented?**
If you answer "no" or "not sure" please skip to the next section. ("Crisis Response Team")
Mark only one oval.

◯ Yes
◯ No
◯ Not sure

10. **10. If you answered "yes" to the previous item, how effective do you believe that comprehensive crisis management plan is?**
Mark only one oval.

◯ Very effective
◯ Effective
◯ Ineffective
◯ Very ineffective

11. **11. What is your role in that comprehensive crisis management plan?**
Select all that apply
Check all that apply.

- [ ] No role
- [ ] Development
- [ ] Prevention
- [ ] Evaluation/Intervention
- [ ] Postvention

12. **12. How often does your school or school district exercise your crisis response plan (excluding fire drills and severe weather drills)?**
Mark only one oval.

- ◯ Never
- ◯ Monthly
- ◯ Twice per month
- ◯ Twice per year
- ◯ Once per marking period (i.e., three or four times per year)
- ◯ Yearly

Crisis Response Team

A crisis response team carries out the crisis response plan. Not every member of the crisis response team may be mobilized for each crisis.

13. **13. Does your school or school district have a crisis response team that responds during a crisis or in its aftermath?**
If you answer "no" or "not sure" please skip to the next page.
Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ Not Sure

14. **14. If you answered "yes" to the previous item, has the crisis response team ever been mobilized?**
If you answer "no" or "not sure" please skip to the next page.
Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ Not sure

15. **15. If you answered "yes" to the previous item, how effective do you believe that crisis response team was?**
Mark only one oval.

- ◯ Very effective
- ◯ Effective
- ◯ Ineffective
- ◯ Very ineffective

16. **16. What is your role on that crisis response team?**
Select all that apply
Check all that apply.

- ☐ No role
- ☐ Development
- ☐ Prevention
- ☐ Evaluation/Intervention
- ☐ Postvention

17. **17. How often does your school or school district conduct crisis response team exercises or drills?**
Mark only one oval.

- ◯ Never
- ◯ Monthly
- ◯ Twice per month
- ◯ Twice per year
- ◯ Once per marking period (i.e., three or four times per year)
- ◯ Yearly

Previous Education and Training

Please use the following definitions when considering your responses to this section of the survey:

Crisis is a sudden, uncontrollable, and extremely negative event that has the potential to impact an entire school community. Examples of crises that fit this definition include severe illness and injury, unexpected death, threatened death or injury, acts of war, natural disasters, and man-made disasters.

Crisis prevention is the provision of education, training, consultation, and crisis intervention designed to reduce the occurrence of mental distress, reduce the incidence of crises, and promote growth, development, and crisis resistance in individuals and the community. Prevention is also referred to as primary care.

Crisis intervention involves the immediate provision of assistance to individuals experiencing a crisis. It is also referred to as secondary care or crisis response.

Crisis postvention involves the provision of services (including counseling and debriefing activities) designed to reduce the long-term effects experienced by those directly and indirectly impacted by crises. Postvention is also referred to as tertiary care.

Psychological triage is the *manner in which* each individual's unique risk factors are assessed in order to determine the appropriate level of intervention and postvention services.

18. **18. How would you rate your level of knowledge about crisis prevention?**
Crisis prevention is the provision of education, training, consultation, and crisis intervention designed to reduce the occurrence of mental distress, reduce the incidence of crises, and promote growth, development, and crisis resistance in individuals and the community. Prevention is also referred to as primary care.
Mark only one oval.

- ◯ Expert level
- ◯ Very knowledgeable
- ◯ Knowledgeable
- ◯ Somewhat knowledgeable
- ◯ Little or no knowledge

19. **19. How would you rate your level of knowledge about crisis intervention?**
Crisis intervention involves the immediate provision of assistance to individuals experiencing a crisis. It is also referred to as secondary care.
Mark only one oval.

- ◯ Expert level
- ◯ Very knowledgeable
- ◯ Knowledgeable
- ◯ Somewhat knowledgeable

20. **20. How would you rate your level of knowledge about crisis postvention?**
Crisis postvention involves the provision of services (including counseling and debriefing activities) designed to reduce the long-term effects experienced by those directly and indirectly impacted by crises. Postvention is also referred to as tertiary care.
Mark only one oval.

- ◯ Expert level
- ◯ Very knowledgeable
- ◯ Knowledgeable
- ◯ Somewhat knowledgeable
- ◯ Little or no knowledge

21. **21. How would you rate your level of knowledge about psychological triage?**
Psychological triage is the manner in which each individual's unique risk factors are assessed in order to determine the appropriate level of intervention and postvention services.
Mark only one oval.

- ◯ Expert level
- ◯ Very knowledgeable
- ◯ Knowledgeable
- ◯ Somewhat knowledgeable
- ◯ Little or no knowledge

22. **22. What training have you received in crisis prevention?**
Select all that apply
Check all that apply.

- ☐ University/college coursework
- ☐ Workshops or seminars, specifically PREPaRE
- ☐ Workshops or seminars, excluding PREPaRE
- ☐ Consultation with colleagues
- ☐ Internet websites
- ☐ None
- ☐ Other: _____

23. **23. What training have you received in crisis intervention (including psychological triage)?**
Select all that apply
Check all that apply.

- ☐ University/college coursework
- ☐ Workshops or seminars, specifically PREPaRE
- ☐ Workshops or seminars, excluding PREPaRE
- ☐ Consultation with colleagues
- ☐ Internet websites
- ☐ None
- ☐ Other: _____

24. **24. What training have you received in crisis postvention?**
Select all that apply
Check all that apply.

- [ ] University/college coursework
- [ ] Workshops or seminars, specifically PREPaRE
- [ ] Workshops or seminars, excluding PREPaRE
- [ ] Consultation with colleagues
- [ ] Internet websites
- [ ] None
- [ ] Other: _____

25. **25. How important do you feel each of the following factors is in building knowledge levels in the area of crisis preparedness and/or response?**
Mark only one oval per row.

	Extremely important	Very important	Important	Somewhat important	Not important
Collegial support, including professional supervision	◯	◯	◯	◯	◯
Practical experience responding to crisis events	◯	◯	◯	◯	◯
Total years of experience as a practicing school psychologist	◯	◯	◯	◯	◯
University or college degree coursework	◯	◯	◯	◯	◯
Trainings, specifically PREPaRE	◯	◯	◯	◯	◯
Trainings, excluding PREPaRE	◯	◯	◯	◯	◯
Independent Study	◯	◯	◯	◯	◯

26. **26. In the past five years, have you encountered any crisis situations?**
Crisis is a sudden, uncontrollable, and extremely negative event that has the potential to impact an entire school community. Examples of crises that fit this definition include severe illness and injury, unexpected death, threatened death or injury, acts of war, natural disasters, and man-made disasters.
Mark only one oval.

- ◯ Yes
- ◯ No

27. **27. How often do you respond to crisis situations?**

Crisis is a sudden, uncontrollable, and extremely negative event that has the potential to impact an entire school community. Examples of crises that fit this definition include severe illness and injury, unexpected death, threatened death or injury, acts of war, natural disasters, and man-made disasters.
Mark only one oval.

- ◯ Daily
- ◯ Weekly
- ◯ Monthly
- ◯ Fewer than 5 times per year

28. **28. How often do you respond to the types of crises listed below?**
Mark only one oval per row.

	Daily	Weekly	Monthly	Fewer than five times per school year	Never
Student-student physical assault	◯	◯	◯	◯	◯
Student serious illness/injury	◯	◯	◯	◯	◯
Unexpected student death	◯	◯	◯	◯	◯
Suicide attempt	◯	◯	◯	◯	◯
Gun/weapon in school	◯	◯	◯	◯	◯
Unexpected school staff death	◯	◯	◯	◯	◯
Student-staff physical assault	◯	◯	◯	◯	◯
Sexual assault/rape	◯	◯	◯	◯	◯
War	◯	◯	◯	◯	◯
Completed suicide	◯	◯	◯	◯	◯
Fire/arson	◯	◯	◯	◯	◯
Robbery/mugging	◯	◯	◯	◯	◯
Homicide	◯	◯	◯	◯	◯
Terrorist attack	◯	◯	◯	◯	◯
Airplane crash	◯	◯	◯	◯	◯
Natural disaster	◯	◯	◯	◯	◯
Kidnapping	◯	◯	◯	◯	◯
Industrial disaster	◯	◯	◯	◯	◯

29. **29. Throughout your school psychology training, approximately how many formal courses discussed the topic of crisis preparedness and/or response?**

_____

30. **30. How important do you think it would be to have one training course devoted specifically to crisis preparedness and/or response?**
Mark only one oval.

- ◯ Extremely important
- ◯ Very important
- ◯ Important
- ◯ Somewhat important
- ◯ Not important

31. **31. How confident are you in providing services to students who are experiencing crisis?**
Crisis is a sudden, uncontrollable, and extremely negative event that has the potential to impact an entire school community. Examples of crises that fit this definition include severe illness and injury, unexpected death, threatened death or injury, acts of war, natural disasters, and man-made disasters.
Mark only one oval.

- ◯ Extremely confident
- ◯ Very confident
- ◯ Confident
- ◯ Somewhat confident
- ◯ Not confident

32. **32. How confident are you in your professional skills for conducting psychological triage?**
Psychological triage is the manner in which each individual's unique risk factors are assessed in order to determine the appropriate level of intervention and postvention services.
Mark only one oval.

- ◯ Extremely confident
- ◯ Very confident
- ◯ Confident
- ◯ Somewhat confident
- ◯ Not confident

33. **33. How confident are you in your professional skills for providing postvention services?**
Crisis postvention involves the provision of services (including counseling and debriefing activities) designed to reduce the long-term effects experienced by those directly and indirectly impacted by crises. Postvention is also referred to as tertiary care.
Mark only one oval.

- ◯ Extremely confident
- ◯ Very confident
- ◯ Confident
- ◯ Somewhat confident
- ◯ Not confident

34. **34. How confident are you in your overall knowledge of crisis preparedness and/or response strategies?**
Mark only one oval.

- ◯ Extremely confident
- ◯ Very confident
- ◯ Confident
- ◯ Somewhat confident
- ◯ Not confident

35. **35. How important do you feel each of the following factors is in building confidence levels in the area of crisis preparedness and/or response?**
Mark only one oval per row.

	Extremely important	Very important	Important	Somewhat important	Not important
Collegial support, including professional supervision	◯	◯	◯	◯	◯
Practical experience responding to crisis events	◯	◯	◯	◯	◯
Total years of experience as a practicing school psychologist	◯	◯	◯	◯	◯
University or college degree coursework	◯	◯	◯	◯	◯
Trainings, specifically PREPaRE	◯	◯	◯	◯	◯
Trainings, excluding PREPaRE	◯	◯	◯	◯	◯
Independent Study	◯	◯	◯	◯	◯

Psychological Trauma Scenarios

(Scenarios were adapted from PREPaRE training materials)

Note: The following scenarios contain descriptions of events that may be disturbing.

Please review the following scenarios. Although you would probably appreciate additional information, please rely only on the description provided to choose the crisis response protocol that is most similar to what you would do in the situation.

A sixth-grade teacher at a middle school was supervising her students on a field trip to a science center. While leading the class through the intersection, she was hit by a bus and died on impact.

School Psychologist A identified the need to treat first the immediate witnesses. School Psychologist A consulted with the supervisor, building administrator, and colleagues to assess the level of impact this situation might have had on other individuals who might not have been present (e.g., former students, other staff members, those who have experienced a similar loss). School Psychologist A documented all communication and treatment in a log, highlighting any individual who needs follow up attention.

School Psychologist B identified the need to treat the immediate witnesses, but decided to postpone this care until after the memorial service for the teacher. School Psychologist B consulted with the supervisor, building administrator, and colleagues to develop the program for the memorial and invited affected individuals (e.g., former students, other staff members, those who have experienced a similar loss) to participate in the planning. School Psychologist B documented all communication and treatment in a log, highlighting any individual who needs follow up attention.

36. **36. Which of the responses is most similar to what you would choose to do in such a situation?**
Mark only one oval.

- ◯ I would respond more like School Psychologist A.
- ◯ I would respond more like School Psychologist B.

37. **37. How confident are you that you could respond effectively to this or a similar type of crisis situation?**
Mark only one oval.

- ◯ Extremely confident
- ◯ Very confident
- ◯ Confident
- ◯ Somewhat confident
- ◯ Not confident

During lunch time, an irate father enters the school yard without checking in at the main office. He waits for his daughter's second grade class to come out for recess. When he sees her, he begins to yell at and beat his daughter. As the astounded class and lunch supervisors watch, he severely assaults her. Leaving the girl unconscious, he

drives off in his car. The event takes place in less than five minutes.

School Psychologist A identified the need to treat the immediate witnesses first. School Psychologist A consulted with the supervisor, building administrator, and colleagues to assess the level of impact this situation might have had on other individuals who might not have been present (e.g., students and staff members in other classrooms who might have heard or witnessed some aspect of the incident, peers of the injured student who did not witness the attack, students who have a history of being abused, office staff who did not notice the father's presence at the school). School Psychologist A documented all communication and treatment in a log, highlighting any individual who needs follow up attention. School Psychologist A discussed the situation with the school's Crisis Response Team and School Safety Team to determine if any steps can be taken to prevent a similar incident from occurring. School Psychologist A will participate in the development of a reentry plan if/when the injured student is medically cleared to return to school.

School Psychologist B identified the need to treat the immediate witnesses first. School Psychologist B decided not to treat any students or staff members who were not in the immediate area so as to prevent further traumatization of the school community. School Psychologist B consulted with the supervisor, building administrator, and colleagues as related to the injured student's prognosis and any litigation. School Psychologist B documented all communication and treatment in a log, highlighting any individual who needs follow up attention. School Psychologist B mentioned the situation to the school administrative team to use as a discussion point in the next Administrative Council meeting. School Psychologist B will participate in the development of a reentry plan if/when the injured student is medically cleared to return to school.

38. **38. Which of the responses is most similar to what you would choose to do in such a situation?**
Mark only one oval.

- ◯ I would respond more like School Psychologist A.
- ◯ I would respond more like School Psychologist B.

39. **39. How confident are you that you could respond effectively to this or a similar type of crisis situation?**
Mark only one oval.

- ◯ Extremely confident
- ◯ *Very confident*
- ◯ Confident
- ◯ Somewhat confident
- ◯ Not confident

In response to the murder of a gang member by a student at the high school, members of a rival gang forcibly enter the high school prom. A fight between the gangs takes place and a 17-year-old non-gang member is killed in the crossfire. The building administrator was chaperoning the event and tried to intervene. She suffered multiple stab wounds and broken bones; she was hospitalized and remains in a coma.

School Psychologist A identified the need to treat the closest witnesses, friends of the victim, and members of the school population who were particularly close to the injured principal. School Psychologist A began crisis intervention immediately. School Psychologist A consulted with the supervisor, administrative team, and colleagues to assess the level of impact this situation might have had on other individuals who might not have been present (e.g., students and staff members who might have heard or witnessed some aspect of the incident, peers of the affected students who did not witness the attack, students who have a history with assaultive violence, members of the rival gang). School Psychologist A did not seek support from mutual-aid resources (e.g., neighboring school districts, community-based mental health organizations). School Psychologist A considered contacting the mental health providers in the rival gang's home school. School Psychologist A documented all communication and treatment in a log, highlighting any individual who needs follow up attention.

School Psychologist B identified the need to treat the immediate witnesses, best friends of the victim, and members of the school population who were especially close to the injured principal. School Psychologist B postponed crisis intervention until after police interviews were completed. School Psychologist B consulted with law enforcement, the supervisor, administrative team, and colleagues to assess the level of impact this situation might have had on other individuals who might not have been present (e.g., students and staff members who might have heard or witnessed some aspect of the incident, peers of the affected students who did not witness the attack, students who have a history with assaultive violence). School Psychologist B considered seeking support from mutual-aid resources (e.g., neighboring school districts, community-based mental health organizations) and considered contacting the mental health providers in the rival gang's home school. School Psychologist B documented all communication and treatment in a log, highlighting any individual who needs follow up attention.

40. **40. Which of the responses is most similar to what you would choose to do in such a situation?**

Mark only one oval.

- ◯ I would respond more like School Psychologist A.
- ◯ I would respond more like School Psychologist B.

41. **41. How confident are you that you could respond effectively to this or a similar type of crisis situation?**

Mark only one oval.

- ◯ Extremely confident
- ◯ Very confident
- ◯ Confident
- ◯ Somewhat confident
- ◯ Not confident

The administrative team contacts the school psychologist and requests the school psychologist to review the district's current crisis preparedness measures and provide the administrative team with feedback regarding any refinements to the measures.

School Psychologist A evaluated the measures in terms of access to the buildings, the ability to observe people on the grounds, and the overall school climate. To ensure all visitors are

accounted for, School Psychologist A recommended establishing a sign in log to be maintained by front office staff. Visitors can enter the school, navigate to the main office, and write their name (or mark) in the registry. School Psychologist A suggested that the window shades in each classroom should be drawn closed, but the ones in office spaces may remain open. This will help the students to remain engaged in their lessons and prevent outsiders from looking in on the classrooms. School Psychologist A discussed with the Supervisor of Building and Grounds the possibility of installing cameras at the front doors and lights in the parking lots. School Psychologist A researched how to incorporate components of Positive Behavioral Intervention and Supports (PBIS) to improve the school climate. School Psychologist A consulted with colleagues in neighboring communities and considered the impact of having a School Resource Officer (SRO) assigned to each building. School Psychologist A developed a presentation highlighting the risks and benefits of each point and set an appointment to follow up with the administrative team.

School Psychologist B evaluated the measures in terms of access to the buildings, the ability to observe people on the grounds, and the overall school climate. To ensure all visitors are accounted for, School Psychologist B recommended establishing a sign in system to be maintained by front office staff. Every visitor must be buzzed in to the building through the main entrance and provide photo identification to obtain a visitor's pass. School Psychologist B suggested that the horizontal window shades in each classroom and office space be drawn halfway. This will minimize distractions, but allow visibility. School Psychologist B discussed with the Supervisor of Building and Grounds the possibility of installing cameras on school property and in the buildings, and lights in the parking lots. School Psychologist B met with each of the School Safety Teams to discuss school climate. School Psychologist B used data from the School Safety Teams to analyze patterns of concerns and made a list of possible ways to address each (e.g., character education programming, Positive Behavioral Intervention and Supports [PBIS]). School Psychologist B consulted with colleagues in neighboring communities and considered the impact of having a School Resource Officer (SRO) assigned to each building. School Psychologist B developed a presentation highlighting the risks and benefits of each point and set an appointment to follow up with the administrative team.

42. **42. Which of the responses is most similar to what you would choose to do in such a situation?**

Mark only one oval.

- ◯ I would respond more like School Psychologist A.
- ◯ I would respond more like School Psychologist B.

43. **43. How confident are you that you could respond effectively to this or a similar type of crisis situation?**

Mark only one oval.

- ◯ Extremely confident
- ◯ Very confident
- ◯ Confident
- ◯ Somewhat confident
- ◯ Not confident