ASSESSING SCHOOL CRISIS PLANS:

DEVELOPMENT OF THE SCHOOL CRISIS

ASSESSMENT AND LOGISTICAL EVALUATION

By

HANNAH M. WEST

Bachelor of Arts in Psychology
Henderson State University
Arkadelphia, AR
2013

Master of Science in Clinical Psychology
Missouri State University
Springfield, MO
2015

Master of Science in Educational Psychology
Oklahoma State University
Stillwater, OK
2016

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Dissertation Approved:

Dr. Terry A. Stinnett

Dissertation Adviser

Dr. Gary J. Duhon

Dr. Brian C. Poncy

Dr. Evan Davis

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Abstract: A crisis is defined as an event that is viewed by the person experiencing it as extremely negative, uncontrollable, and unpredictable (Brock et al., 2016). Children and adolescents spend a large percentage of their time in schools, and for this reason, schools must be prepared and ready to respond to any number of crisis situations (Brock et al., 2016; Gainney, 2010; Gray & Lewis, 2015). Schools must be actively preparing for school crisis, starting with the development of a comprehensive crisis plan, because there are only two types of schools – those who have faced a crisis event and those who are about to face one (Stephens, 1994). The current study developed a rubric tool for the evaluation of school crisis plans based on a review of the existing crisis plan checklists and the research base, along with feedback and suggestions from a panel of school crisis experts. A total of 48 school crisis plans from across the United States were evaluated using the School Crisis Assessment and Logistical Evaluation (SCALE) to assess the comprehensiveness of school crisis plans. The results indicated strong inter-rater reliability, with an agreement percentage of 89.49%. Additionally, the Fleiss' kappa demonstrated strong agreement between raters' judgments, κ=.856 (95% CI, .834 to .879), $p < .001$. In regard to intra-rater agreement, the absolute agreement percentage was 80.57%. These results provide preliminary support for the use of this measure to provide an initial assessment of school crisis plans, as well as for the use as a progress monitoring tool. Further, analysis indicated that overall, school crisis plans were often lacking recommended components in the prevention, intervention, and postvention areas. These results hold several implications for schools. First, schools should be revising and updating crisis plans on a regular basis. The SCALE shows promise as a tool to identify current levels of school crisis plan content and to assist in monitoring changes made over time. Future research should continue to examine the usability of the SCALE and to ensure implementation of best practices when faced with crisis situations.

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CHAPTER I

INTRODUCTION

A crisis is defined as an event that is viewed by the person experiencing it as extremely negative, uncontrollable, and unpredictable (Brock et al., 2016). Children and adolescents spend a large percentage of their time in schools, and for this reason, schools must be prepared and ready to respond to any number of crisis situations, including but not limited to expected and unexpected deaths of students and staff, violence, bullying, financial stresses, environmental disasters, terrorism threats, and health concerns (Brock et al., 2016; Gainney, 2010; Gray & Lewis, 2015). Despite the perceived increases in school violence since the rampage type school shooting crisis events in the late 1990s and early 2000s, schools are still among one of the safest environments for children and adolescents. However, crisis events of some scale will likely impact almost every school (Brock et al., 2007). Schools must be actively preparing for school crisis, starting with the development of a comprehensive crisis plan because there are only two types of schools – those who have faced a crisis event and those who are about to face one (Stephens, 1994).

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Brief History of Crises in Schools

School crises have a long history, marking the importance for school-crisis plans and interventions. Unfortunately, schools have a history of waiting for a crisis to occur before adequately preparing for an event, creating a reactive environment rather than a preventative one. The loss of lives is often required before a school notices the need for changes to occur within their crisis response plan.

Since the mid-1800s, the most commonplace and widely publicized school crisis events have been fire-related; however, fire drills have not always been utilized appropriately. In an extreme example unfortunately representative of many instances related to school crises, it took over 30 years, the deaths of 40 children, and a near repeat of a previous accident for the New York City Superintendent to mandate all NYC schools to conduct practice fire drills. It took an additional decade for the state legislation to become involved in 1901, and even then, fire drills were not consistently or strictly enforced, and schools needed constant reminders, meaning students and teachers were still at risk (Heath, Ryan, Dean, & Bingham, 2007).

Not all school crises are caused by natural disasters or accidents; unfortunately, some school crises are perpetrated by individuals who choose to hurt students and teachers within the confines of the school. Most people are aware of the mass school shootings at Sandy Hook Elementary School in 2012, the milestone Columbine High School Massacre in 1999, and the most recent school shooting at Stoneman Douglas High School in 2018 that has once again sparked national conversation about policies related to school safety. However, some of the most destructive school disasters at the hands of individuals are little known today and occurred many decades ago, such as the school bombing in Bath County, Michigan in 1927.

Around this time, schools began to be aware of the importance of crisis plans with some preemptive measures (i.e., drills) and policies in place to meet the immediate needs of students afterwards. It would take another 40 years and additional crises for the emotional needs of school crisis survivors to be taken into account (Schneidman, 1981).

With such a reactive history to school crisis events, the importance of proactive initiatives being put in place within schools cannot be overstated. For this reason, the goal of a crisis plan is to preemptively plan for crisis events to prevent or reduce loss and/or harm in a crisis.

Reasons for Crisis Prevention and Preparedness

Although school crises have a long history, it was not until the early 1970s that school violence began to receive much attention and concern from parents, administrators, teachers, and students (G. Morrison, Furlong, & R. Morrison, 1994). In 1978, a national study was conducted and released by the National Institute of Education focusing on the prevalence and outcomes associated with peer victimization and school violence (National Institute of Education, 1978). The mass media coverage of the rampage type school shootings in the 1990s and 2000s led to national attention, increased research, and a public cry for policy changes ensuring students and teachers are safe within their schools (Muschert, 2007).

Although schools are amongst the safest places for children, the likelihood a school will experience some sort of crisis event is high. Natural disasters (i.e., Hurricane Irma in 2017), unexpected deaths, and situations of violence (i.e., rampage shootings, attempted suicides) have significant impacts on students and school staff (Zantal-Wiener & Horwood, 2010). A 2007 survey of 228 school psychologists revealed 93% of participants reported facing a combined total of 542 influential crises within their schools, indicating the

prevalence of school crisis situations is high and a problem all schools face (Adamson & Peacock, 2007).

Traumatic events often have long-lasting and severe consequences and effects for individuals who are exposed (Gurdineer, 2014). Humans are resilient and often will either not experience maladaptive crisis reactions or their initial symptoms will decrease to normal levels without formal treatment (Brock et al., 2016; National Institute of Mental Health (NIMH), 2002). However, some individuals who exhibit specific risk factors, including physical or emotional proximity to the event, may develop mental illness if their immediate crisis reactions are not dealt with appropriately. An event's level of predictability, consequences, duration, and intensity interact with the crisis type (i.e., natural disaster versus planned attack) to either increase or decrease the likelihood of the event being psychologically distressing to those who have experienced it (Brock et al., 2016). While it is understandable to focus on the children after a school crisis event, teachers and staff members must also be considered when schools provide crisis treatment (Daniels, Bradley, & Hays, 2007).

The PREPaRE Model of Crisis Prevention and Intervention

The PREPaRE (Prevent, Reaffirm, Evaluate, Provide and Respond, Evaluate) School Crisis Prevention and Intervention Model was created in 2006 by the National Association of School Psychologist (NASP), and followed most recently by the release of its second edition in 2016. This model is based on the U.S. Department of Education's phases of crisis management and the Incident Command System, and it additionally uses a three-tiered approach for crisis intervention. The PREPaRE model of crisis prevention and intervention is currently considered best practice for schools. It is also the only model with a built-in

evaluative component; attending the PREPaRE trainings is directly related to participants demonstrating significant increases in crisis prevention and intervention knowledge and reporting higher levels of self-efficacy when faced with a crisis event (Brock, Nickerson, Reeves, Savage, & Woitaszewski, 2001). Unfortunately, there is a lack of data indicating the PREPaRE trainings serve as a change-agent within schools, and there is no empirically validated method of assessing school crisis plans within the current model framework.

Crisis Plans

Although there are currently no federal laws requiring schools to create crisis plans, more than half of the fifty U.S. states have created such laws and requirements (Brock et al., 2011), and there are federal statutes obligating schools to have crisis plans if they are receiving federal funding (United States Department of Education, 2006; United States Government Accountability Office, U.S. GAO, 2007). Werner (2015) posited the key components to a sufficient school crisis preparation include having a well-developed and comprehensive plan and practicing said plan at least once per year. It is viewed as best practice for plans to be put in place that help organize resources and outline procedures a school will follow to effectively respond to a crisis event. Additionally, there has been a push to include crisis prevention and postvention strategies (Brock et al, 2016; U.S. Dept of Ed., 2006).

There have been several barriers reported by researchers and practitioners preventing effective school crisis planning. Some of these barriers include limited resources available, territorial conflicts, and misguided priorities. Perhaps the most detrimental barrier to school crisis planning is inadequate crisis plans and the lack of implementation fidelity when following the plans. The U.S. Department of Education reported that although schools now

have crisis plans, they are not practiced regularly or disseminated to new staff members each year (U.S. GAO, 2007). This highlights the real challenge faced by schools is following through with crisis planning to provide effective results (Heath et al., 2007).

Evaluating School Crisis Plans

Due to the nature of crisis events, research of school crises is difficult. The variables involved obviously cannot be manipulated or evoked for ethical reasons and the crises events that do occur are relatively low frequency events that differ dramatically on the specifics. For these reasons, there is very little empirical evidence validating the use of crisis plans and the effectiveness of school crisis intervention programs (Knox & Roberts, 2005). Research investigating the content of school crisis plans reveal many plans are inadequate in their coverage and implementation (Gurdineer, 2014; U.S. GAO, 2007).

Checklists and surveys are viable options for collecting data on the content of school crisis plans, and what little research has been conducted has been completed via these means of data collection (Brock et al., 2016; Gurdineer, 2014). There are numerous informal crisis plan checklists based on literature available published online and in books; however, there has only been one school crisis plan measurement tool to be studied empirically, the *Comprehensive Crisis Plan Checklist* (Aspiranti et al., 2011).

While a checklist is a good place to start crisis plan evaluation, it does not provide clear directions on what to do if a component is not represented in the current plan nor does it provide a way to evaluate the quality of what is in place. Rubrics with rating scales can serve as an alternative to checklists when a simple yes/no is not adequate for measuring the product. Rubrics consist of a fixed measurement scale and detailed descriptions of the characteristics for each level of performance, thus providing more substantial feedback and a

way to plan for improvements. To date, there are no empirically validated rubrics to evaluate school crisis plans. However, there are rubrics available evaluating other systems within schools. The School-Wide Evaluation Tool (SET) is a rubric used to evaluate positive behavior supports in schools, and the Technical Adequacy Tool for Evaluation (TATE) evaluates functional behavior analyses and behavioral intervention plans. Both tools have demonstrated reliability and validity through interrater agreement, convergent validity, and content validity (Cohen, Kincaid, & Childs, 2007; Horner et al., 2004; Iovannone & Romer, 2015).

The Current Study

The goal of this study is to develop a rubric tool for the evaluation of school crisis plans and to provide initial validation of the validity, reliability, and dimensionality of the rubric. The study occurred in several phases. The first phase developed the initial rubric. Items were developed based on a review of the existing crisis plan checklists and the research base. Then, a panel of school crisis experts reviewed the items and provided suggestions and feedback. Once edits were made to the initial rubric, the edited version underwent a pilot phase assessing inter-rater agreement. The raters discussed any score discrepancies and made changes needed for clarity and content. Once the rubric was completed, it was utilized to assess the crisis plans from a selection of schools across the United States and the data were analyzed to provide initial validation of the tool.

CHAPTER II

REVIEW OF LITERATURE

A crisis is defined as an event viewed as extremely negative, uncontrollable, and unpredictable (Brock et al., 2016). Schools must be prepared and ready to respond to any number of crisis situations, including expected and unexpected deaths, violence, bullying, financial stresses, environmental disasters, terrorism threats, and health concerns (Brock et al., 2016; Gainney, 2010; Gray & Lewis, 2015). School crisis events range in the amount of students/faculty impacted and the severity of the event. Some school crises may involve only a handful of members of a school campus, as in the case of a serious injury with eventual recovery, while others may involve the entire student body creating what has been described as an unstable situation, as with a natural disaster or terrorist attack (Heath, Ryan, Dean, & Bingham, 2007).

Since the rampage type school shooting crisis events in the late 1990s and early 2000s, there has been a piqued interest in school violence, its causes, and how it can be addressed, both within schools and through school crisis policy changes (Muschert, 2007). Recent events, including the mass shooting at Stoneman Douglas High School, have further prompted national attention be directed at school safety and security. Although schools are among one of the safest environments for children and adolescents,

crisis events will likely impact almost every school (Brock et al., 2016). Stephens (1994) postulated there are only two types of schools – those who have faced a crisis event and those who are about to face one. It is for this reason that schools must actively prepare for crises, starting with a comprehensive crisis plan.

Brief History of Crises in Schools

School crises have a long history, precipitating the need for school-crisis plans and interventions. Unfortunately, the history of school crisis planning has been a responsive effort rather than a preemptive one. Schools have a history of waiting until a crisis occurs before adequately preparing for such an event, and a loss of lives is often required for changes to be made.

Over the past 150 years, the most commonplace and most widely publicized school crises have been fire-related; however, fire drills have not always been required or practiced. New York City (NYC) provides an example of how many crises culminate into the legislation currently in place for crisis preparation and response. In 1851, the fire alarm rang in Greenwich Avenue School, and students and teachers began to exit the building. Unfortunately, students had not been trained for fire drills, were unfamiliar with escape routes, and did not have a structured plan for where to go once they had exited the building. In the chaos surrounding the escape attempt, 40 children were killed, and many others were injured. Ironically, there was no fire. This event immediately sparked interest in fire safety and preemptive fire drills. Although not state or federally mandated, many school teachers began to teach their students a protocol for how to safely exit the school building in case of a fire. Unfortunately, once the media attention surrounding the event subsided, so did many teachers' training efforts. It was over 30 years later, after a near

repeat of the 1851 event, that the NYC Superintendent mandated all NYC schools to conduct practice fire drills and another decade before New York's legislation became involved. In 1901, the New York governor signed a bill requiring all schools in the state to practice fire drills. Even then, fire drills were not consistently nor strictly enforced, and schools required constant reminders of the importance of carrying out fire drills, meaning students and teachers were still at risk (Heath et al., 2007).

School crises are, unfortunately, not just caused by natural disasters or accidents such as fires, tornadoes, and earthquakes. Some school crises are perpetrated by individuals who choose to take lives of students and teachers. Most people are familiar with the more recent school shooting at Sandy Hook Elementary School in 2012, where one armed gunman killed 20 children and 6 staff members, and the milestone Columbine High School Massacre in 1999 which sparked national media attention and in turn caused national attention to be focused on school crises prevention and intervention. However, some of the most destructive school disasters are little known today. For example, a school bombing in Bath County, Michigan, 1927 killed almost three times as many people as the Columbine High School Massacre (Heath et al, 2007). In this incident, an angry school board member set off a series of bombings targeting his home and the county's school. The bombings killed 38 children and 6 adults and injured another 58 individuals in a town of approximately 300 residents (Heath et al., 2007).

At this point in history, people were becoming aware of the need to have crisis plans in place within schools, but the focus was just on some preemptive measures (i.e., fire drills) and the immediate needs of students after a crisis event. The emotional needs of school crisis survivors were not taken into consideration, and little to no mental health

supports were provided for students following a crisis event. The 1976 Chowchilla School Bus Hijacking highlighted the need for these supports. In this incident, three armed men abducted a school bus, taking 26 students and one adult captive, who they eventually buried in a trailer. All captives escaped from the trailer and were rescued, but the harrowing ordeal lasted a long 27 hours. Initial crisis response efforts met the students' physical needs, but crisis counseling was not provided. A follow-up evaluation four years later revealed many of the students involved in the incident exhibited significant anxiety and trauma related to the event. Today, one specific area of crisis intervention is postvention, or the provision of crisis intervention, support, and assistance for those affected by a crisis event (Schneidman, 1981).

While these are just a handful of the school crisis events that have shaped the current standing of school crisis plans within schools, they demonstrate how reactive the process of crisis prevention and intervention has been within history. The importance of proactive initiatives being put into place cannot be overstated and are perhaps even more important now than in previous years. In the 1940s, police records on incidents in rural schools revealed the most common behavior problems were chewing gum, talking, making noise, not standing in line, and running in the halls. These behaviors are in sharp contrast to the most commonly reported problems in the 1980s, consisting of substance use, teen pregnancy, rape, suicide, and burglary (Pitcher & Poland, 1992). In a 2004 survey, school psychologists reported the most common crises encountered were student-student physical assaults, serious illness or death of students, suicide attempts, and weapons in schools (Nickerson & Zhe, 2004). The increases in the relative level of violence and impact of the most commonly reported crises in schools highlight the

importance of crisis planning. The goal of a crisis plan is to preemptively plan for crisis events to prevent or reduce loss and/or harm in a crisis situation.

Reasons for Crisis Prevention and Preparedness

Perceived Lack of Safety in Schools

School violence has received much attention and warranted great concern from parents, administrators, teachers, and students since the early 1970s (G. Morrison, Furlong, & R. Morrison, 1994) with the national study *Violent Schools – Safe Schools*, that focused on the prevalence and outcomes associated with peer victimization and school violence (National Institute of Education, 1978). A perceived increase in rampage type school shootings in the late 1990s and early 2000s exacerbated the interest in school violence, leading to mass media attention, increased research, and a public cry for school crime policy changes to ensure the safety of schools (Muschert, 2007).

Before the shootings of the late 1990s and early 2000s, schools were viewed as safe places for American children. In 2000, one year after mass school shooting at Columbine High School in Littleton, Colorado, 71% of parents reported via a Gallup poll the incident altered their view of children's safety at school (Borum, Cornell, Modzeleski, & Jimerson, 2010). In response to these feelings, researchers, policy makers, government agencies, and school administrations have implemented a wide variety of programs and interventions aimed to decrease school violence and identify high-risk students (Wike & Fraser, 2009). Unfortunately, many of these programs and interventions have not been empirically validated; in fact, some have even resulted in public concern. For example, a school district in Burleson, Texas designed and implemented a "counter attack" plan, in which a retired military officer taught students

how to fight back in the event of a school shooting by throwing books and other objects at an armed gunman (Wike & Fraser, 2009).

Prevalence of school crises and violence

Crises such as unexpected deaths, natural disasters (e.g., Hurricane Irma in 2017), and situations of violence (e.g., rampage shootings) have significant impacts on schools and the students and staff within the schools (Zantal-Wiener & Horwood, 2010). Although less prevalent in nature, schools may also experience extreme violence incidents, including homicides. Specifically, a total of 48 student, staff, and nonstudent school-associated violent deaths occurred within United States schools during the 2013-2014 school year (Musu-Gillette, Zhang, Wang, Zhang & Ouderkerk, 2017). Additionally, Larson (2008) found the number of non-lethal assaults has remained steady over time, and the rates for girls has increased since the 1990s. This trend is also noted by Nickerson and Zhe (2004); their national survey of school psychologists found the most frequently reported school crisis was student-student physical assaults. Furthermore, more than 75% of schools reported a violent crime incident during the 2007-2008 school year (Reeves, Kanan, & Plog, 2010).

Natural disasters, including fires, tornadoes, earthquakes, and hurricanes, are far more common and may be the most likely crisis event to occur in many schools. In 2006, the Center for Research on the Epidemiology of Disasters reported there are approximately 307 natural disasters affecting communities, and therefore schools, per year. Furthermore, children and adolescents often comprise a large percentage of natural disaster victims (Evans & Oehler-Stinnett, 2006). This is especially true when the natural disaster damages a school. For example, a tornado hit and destroyed two school buildings

in 1999. In a 2007 survey (Adamson & Peacock) of 228 psychologists, 93% of participants reported facing a combined total of 542 influential crises within their schools indicating crises are very much a problem all schools face.

Effects of psychological trauma

Traumatic events can have long-lasting and severe consequences for individuals exposed (Gurdineer, 2014). An event's level of predictability, consequences, duration, and intensity interact with the crisis type to either increase or decrease the likelihood of the event being psychologically devastating (Brock et al., 2016). Humans are resilient, and this resilience provides the coping and adaptive skills required to protect oneself from the development of maladaptive crisis reactions (Brock et al., 2016). Even those individuals who initially demonstrate symptoms of stress after a crisis will likely have a decrease in symptomology without formal long-term treatment (National Institute of Mental Health (NIMH), 2002). However, for individuals who exhibit specific risk factors, such as physical or emotional proximity, mental illnesses can develop if not treated appropriately. Specifically, individuals who experience a crisis event may be at higher risk of developing anxiety disorders, such Posttraumatic Stress Disorder (PTSD) and Acute Stress Disorder (ASD). They may also experience mood disorders, sleeping disorders, and/or substance use disorders associated with trauma experience (Brock et al., 2016).

According to the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; APA, 2013), children and adolescents generally have displayed a lower prevalence of PTSD following exposure to traumatic events. However, the newest edition of the DSM adjusted the criteria for children six years of age and younger to make

it more representative of the younger age group. Specifically, the new criteria consider the symptom of developmental regression. Preschool aged children may engage in behaviors no longer developmentally appropriate or they may exhibit a regression in learned behaviors (Gurdineer, 2014). For example, a child who had previously been toilet trained may begin to wet the bed or a child may spontaneously begin to suck their thumb after cessation of the behavior prior to the trauma. For this reason, previous prevalence rates may have underestimated the number of children who experience PTSD symptoms.

Researchers have found approximately 20-40% of children exposed to a crisis event present with some symptoms of PTSD (Allwood, Bell-Dolan, & Husain, 2002). Elementary aged children may begin to express trauma reactions verbally but are still likely to express reactions behaviorally as well. This age group of children may be likely to engage in crying behaviors, have an increase in physical complaints, become withdrawn or attention seeking, or seem irritable and angry. Adolescents are more likely to clearly express their reactions verbally, but they may also experience problems such as sleeping difficulties, depression, withdrawal, anxiety, avoidance tactics, and difficulty concentrating (Gurdineer, 2014).

While it is easy to consider the students affected by school crisis events, teachers and staff members are often forgotten when schools offer treatments for traumatic stress (Daniels, Bradley, & Hays, 2007). Because adults are attempting to effectively intervene with children, it is of the utmost importance their crisis reactions are assessed. Adults working within schools where a crisis takes place may experience irritability, strained relationships, and low frustration tolerance, along with feelings of shock and denial (Daniels, Bradley, & Hays, 2007).

School Crisis Prevention and Preparedness Models

The literature has a number of crisis prevention and preparedness models supported by researchers in the field of school crisis. Poland (2002) uses the National Organization for Victim Assistance (NOVA) model. Jimerson, Brock, and Pletcher (2005) proposed an integrated model including a shared foundation including both crisis preparedness and intervention. Additionally, there are the three-tiered model suggested by Caplan (1964) and the Federal Emergency Management Association (FEMA) model endorsed by the U.S. Department of Education (2006). Finally, the PREPaRE model was developed specifically for schools, and it encompasses many components of the previous models.

National Organization for Victim Assistance (NOVA): Crisis Response Program

The National Organization for Victim Assistance (NOVA) team model emphasizes the first 72 hours in crisis management with four specific goals: initial planning, training to ensure the response team members are on the same page, crisis counseling services, and victim advocacy (Jimerson et al., 2005). Advocacy services may include helping with financial assistance, managing media sources, ensuring victims' legal rights, and providing information to family members (Kelley, 2017; Jimerson et al., 2005). Additionally, NOVA emphasizes four phases of crisis intervention, including physical care and safety, crisis interventions, post-traumatic counseling, and growth and survival after the crisis, as based on Maslow's hierarchy of needs. The NOVA model suggests a school counselor is the best suited individual to provide crisis counseling and follow-up for those affected by the crisis event (Kelley, 2017).

Integrated model

Jimerson et al. (2005) proposed an integrated model of crisis preparedness and interventions based on the idea that various unique strategies are implemented internationally. They argued this approach is better for more diverse populations because it integrates the different strategies. Once again, pre-impact, impact, and post-impact activities are emphasized in order to address crisis prevention, intervention, and postvention. However, since there is little empirical research regarding school crisis prevention and intervention, Jimerson et al. (2005) indicate further research is needed before a thorough shared foundational model of crisis intervention is possible.

Federal Emergency Management Association (FEMA) model

The Federal Emergency Management Association (FEMA) model is endorsed by the U.S. Department of Education (2006) as a framework for school emergencies. The FEMA model addresses four specific areas of need to address in the planning of crisis management: Mitigation, Preparedness, Response, and Recovery.

Mitigation, or prevention methods, is defined as any proactive act that will lessen the impact of a crisis event. This can include training personnel and assessing areas of vulnerability (Kelley, 2017). Preparedness means to expect the unexpected and plan for events that may occur, and includes developing a crisis plan outlining roles of crisis team members for responding to a host of events potentially impacting a school. Additionally, the FEMA model uses the National Incident Management System to ensure schools are using the same procedure and language as first responders and local police. The third phase of the FEMA model is Response, where the goal is to calm student and staff fears and begin to restore a normal school environment. Finally, Recovery ensures the long-

term needs of students and staff are met and restoration to school as normal occurs (Gray & Lewis, 2015).

The National Association of School Psychologists' PREPaRE Model

The PREPaRE (Prevent, Reaffirm, Evaluate, Provide and Respond, Evaluate) School Crisis Prevention and Intervention Model was initially developed by the National Association of School Psychologists (NASP) and piloted in 2006. The second edition of the curriculum was released in 2016. The curriculum is based on the U.S. Department of Education's phases of crisis management and the Incident Command System, therefore encompassing the NOVA model. Additionally, the PREPaRE model uses a three-tier approach so all students may receive services following a crisis situation as determined by need. For example, the whole school would receive Tier I supports, while only those students identified as severely traumatized would receive the more extensive Tier III supports (Brock et al., 2016).

The PREPaRE model is the only one of these proposed models of crisis preparedness and intervention to have a built-in evaluative component. Research findings demonstrate that after attending the PREPaRE trainings, participants demonstrate significant increases in crisis prevention and intervention knowledge and report higher levels of self-efficacy (Brock, Nickerson, Reeves, Savage & Woitaszewski, 2001). However, other than looking at participants' knowledge and attitudes, there is a clear lack of data supporting the model as a change-agent. Specifically, the PREPaRE model has not yet found a way to evaluate changes in crisis planning based on their model and training. There is also no empirically validated method of assessing crisis teams or crisis plans within the model framework.

Crisis Plans

The key components of sufficient crisis preparation include having a well-developed and comprehensive crisis plan and practicing the plan at least once a year (Werner, 2015). There are currently no federal laws in place requiring schools to create school crisis plans; however, more than half of the fifty U.S. states have created laws or requirements for schools to have crisis plans (Brock et al., 2011). Additionally, there are federal statutes obligating schools to have crisis plans as long as they are receiving federal money. The No Child Left Behind Act of 2001 required schools that are receiving federal funding must be able to guarantee they have a plan for keeping the school safe and drug free through the Safe and Drug Free Schools and Communities act. They must also have security procedures, a code of conduct for students, engage in preventive efforts, and have a crisis plan to handle school emergencies (Brock, Nickerson, Reeves, Jimerson, Lieberman, & Feinberg, 2009; U.S. Dept of Ed., 2006: U.S. GAO, 2007). Further legislation required schools to include people with disabilities in emergency planning (Brock et al., 2009).

It is viewed as best practice to have a crisis plan in place which helps organize resources and outlines the procedures a school will follow to effectively address a crisis event (Brock et al., 2016; United States Department of Education, 2006). Additionally, there has been a push to include not only procedures to address a crisis event when it occurs, but to also include crisis prevention and postvention strategies.

Crisis plans may exist at the district and school building levels. It is important for all schools to adapt their district model to include building level specifics in order to have appropriate procedures in place for the specific layout of the building (Gurdineer, 2014).

Following a crisis plan allows for a school crisis team to respond quickly and effectively in the event of a crisis. It outlines the specific responsibilities delegated to each crisis team role and helps reduce disorganization in the response process.

Incident Command System

To receive funding from the U.S. Departments of Education, Health and Human Services, or Homeland Security, school crisis plans must utilize the Incident Command System (ICS) roles set forth by the National Incident Management System (NIMS; Brock et al., 2016). This system provides a common organizational structure for responding to emergencies that is shared by police and first responders. The ICS directs the development of five specific sections: Command, Operations, Planning, Logistics, and Finance/Administration (See Figure 1).

The Incident Commander (IC) is responsible for coordinating all of the crisis response efforts and it often the principal or other leader in the school. The IC is assisted by the incident command team (the "managers") comprised of a public information officer, who provides information to the public and media; a safety officer, who is responsible for assessing the school environment for hazards and coordinating safety efforts among the different agencies; a liaison officer, who speaks on behalf of the school to other organizations; and a mental health officer, who assesses the need for and coordinates mental health services for the individuals involved in the crisis (Brock et al., 2016).

The four additional sections of Operations, Planning, Logistics, and Finance/Administration each fill different roles required to address a crisis situation. For example, the Operations section (the "doers") are responsible for addressing the needs of

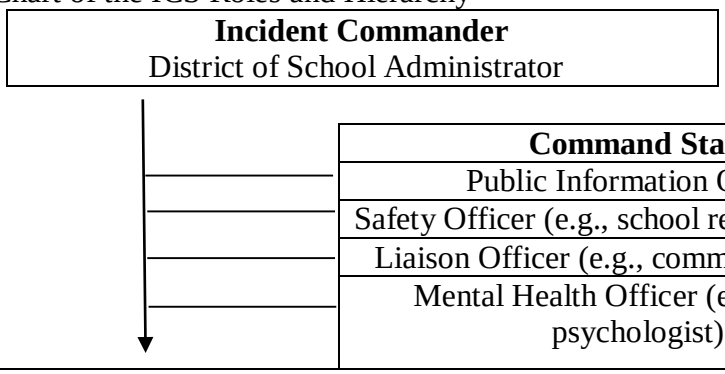
individuals. This may include directing resources to the care of students, mental health crisis intervention, search and rescue, and release and reunification of families. The Planning section (the "thinkers") analyzes information to measure the seriousness and scope of the incident, track resources, and maintain the documentation of activities. The Logistic section (the "getters") secures and provides resources, personnel, equipment, and facilities needed. They also coordinate all volunteers. Finally, the Finance/Administration section (the "payers") keeps records of money spent and oversees all financial activities (Brock et al., 2016).

Despite being required in order to receive federal funding, the United States Accounting Office (U.S. GAO, 2007) reported only 43% of school districts use the ICS effectively to help make the response of schools more efficient in a crisis situation.

School Crisis Plan Elements

Even if a school has a crisis plan in place, there is no regulation as to what information must or should be represented in the plan. Organizing crisis plans within a specific model of crisis prevention and intervention helps provide the components necessary for a comprehensive crisis plan. Additionally, these models of crisis prevention and intervention also include specific components that help schools prevent and recover from crises. For this reason, elements in a comprehensive crisis plan can be organized by the role of team members in the areas of prevention, intervention, and postvention (or recovery; Aspiranti, Pelchar, McCleary, Bain, & Foster, 2011).

Figure 1. Flow Chart of the ICS Roles and Hierarchy



General Staff			
Operations Section (Doers) Supports on-scene school site response	**Planning Section** (Thinkers) Collects, monitors, evaluates, and documents incident information	**Logistics Section** (Getters) Provides personnel, supplies, and services to support response	**Finance and Administration Section** (Payers) Tracks incident costs, claims, compensation, and reimbursements
Security and Traffic (e.g., school resource officer)	Situation (e.g., district personnel, assistant principal)	Facilities (e.g., building engineer)	Personnel (e.g., district or school secretary)
Search and Rescue (e.g., school resource officer)	Documentation (e.g., district personnel, secretary)	Food (e.g., food services coordinator)	Purchasing (e.g., district accounts payable, school secretary)
Crisis Intervention and Student Care (e.g., school psychologist)	Resources (e.g., district personnel, secretary)	Supplies and Equipment (e.g., building engineer)	Accounting and Record Keeping (e.g., district or school secretary, math teacher)
Evacuation (e.g., assistant principal)	Demobilization (e.g., district personnel, assistant principal)	Transportation (e.g., transportation coordinator, assistant principal)	Compensation and Claims (e.g., district accounting personnel)
Release and Reunification (e.g., secretary)		Communication and IT Support (e.g., technology specialist)	
Emergency Medical (e.g., nurse)			
Translation (e.g., community liaison)			

Note. Adapted from Brock et al., 2016, p. 104.

Within the specific area of prevention, school crisis plans should identify any programs or activities they engage in designed to promote positive school climate. For example, a school crisis plan should include information on school-wide positive behavioral support programs (SWPBIS) and any social/emotional or behavioral programs available to students. Additionally, discipline policies, classroom management techniques, and physical safety concerns are components of prevention. School drills for specific crisis events should also be considered, and thorough school crisis plans should address when and how to conduct these trainings.

The next tier of crisis planning is intervention, which addresses what steps should be taken when a crisis event occurs. This section of the crisis plan should include evacuation procedures and locations, as well as a plan for reunification after the crisis event has subsided. It is important to design these procedures with all students in mind, especially those who are physically or mentally impaired.

Once the immediate physical needs of students have been met and the crisis situation has abated, postvention, or recovery, steps can begin. Schools need to create protocols for how to communicate crises to students, parents, and other individuals in the community. Specific communication protocols ensure effective and timely responses in the case of a crisis event. School crisis plans should include specific plans for communication and working with media outlets. Psychological triage is the assessment and identification of students who are most in need of services (Gurdineer, 2014). Psychological triage is used to match student need to resources available in the aftermath of a crisis event. Crisis plans should have instructions on how to identify students who may need additional supports. In addition, crisis plans should have resources and

interventions outlined in order to efficiently meet the needs of students and staff in a timely manner. Community resources should also be made available to those individuals who may need longer-term care than what can feasibly be provided by a school. Finally, the recovery portion of the crisis plan should also address how the school or district can evaluate the response to a crisis event or order to identify areas of strength and target areas that need improvement (Brock et al., 2016).

Gurdineer (2014) surveyed school professionals from 25 states in the U.S. about their school crisis plans. She found the crisis plans varied substantially on their quality and the inclusion of prevention, intervention, and postvention activities.

Barriers to School Crisis Planning

Researchers and practitioners have reported a number of barriers to effective school crisis planning, including limited resources available, territorial conflicts, and misguided priorities. Perhaps the most detrimental barrier to school crisis planning is inadequate crisis plans and implementation of these plans. For example, the U.S. Department of Education reports that although many schools now have crisis plans, they do not practice those plans regularly, therefore decreasing implementation fidelity (U.S. GAO, 2007). For this reason, the real challenge faced by schools is to follow through with crisis planning to provide effective results (Heath et al., 2007).

Many schools do not have the resources available to effectively plan for all crisis events. For example, time, personnel, specific trainings, lack of equipment, etc. are often lacking in schools (Reeves et al., 2010). It can be expensive and time consuming to plan drills encompassing the variety of crisis situations a school may encounter, and some school personnel do not think beyond the typical fire and weather-related drills. One

study found approximately 43% of schools reported conducting drills for crises beyond fire and weather-related drills (Adamson & Peacock, 2007); however, a different study found 30% of school superintendents reported their schools had never engaged in any practice drills for crisis events (Graham, Shirm, Liggin, Aitken, & Dick, 2006).

Evaluating School Crisis Plans

Research studying school crisis situations is difficult because variables obviously cannot be manipulated or evoked for ethical reasons. Further, crisis events are low frequency events that differ dramatically based on the specific crisis and severity of event. For this reason, there has been little empirical research validating the use of crisis plans and effectiveness of school crisis intervention programs (Knox & Roberts, 2005). Recently, however, researchers have begun to investigate the content of school crisis plans, and they have found many plans are inadequate in their coverage and implementation (U.S. GAO, 2007). However, there is still a clear lack of empirical research conducted on crisis prevention and intervention, and this deficit extended to school crisis plans.

Because of the difficulties associated with evaluating school crisis plans, checklists and surveys are viable options for collecting data on the content of school crisis plans (Brock et al, 2016; Gurdineer, 2014). Numerous informal crisis plan checklists have been published online and in books, but these checklists are usually developed based on literature and recommendations.

The only measurement tool to be studied empirically is the *Comprehensive Crisis Plan Checklist* (CCPC; Aspiranti et al., 2011). This tool was developed based on literature in crisis prevention and intervention as an extension of a previously developed

brief checklist. Aspiranti et al. (2011) posit their tool can be used to assist practitioners with the evaluation of their school crisis plans in order to determine strengths and weaknesses in the plan. To use the CCPC, evaluators compare the contents of their own school crisis plan with the list of CCPC items to distinguish if "yes," the item on the checklist is present within their plan or "no," the item on the checklist is not present within their plan (Aspiranti et al., 2011).

While this checklist is a good place to start the crisis plan evaluation, it does not provide clear direction of what to do if a piece is not represented within the current school crisis plan. Additionally, there is no way to evaluate the quality of what is in place. Rubrics with rating scales can be used when a simple yes/no is not adequate for measuring the product. Rubrics consist of a fixed measurement scale and detailed descriptions of the characteristics for each level of performance, thus providing more substantial feedback than a checklist alone. The information in a rubric helps the evaluator understand where they are in the development of their school crisis plan (Erickson, 2011). Rubrics have been found to be reliable and valid evaluation tools (Reddy, 2011).

To date, there are no empirically validated rubrics to evaluate school crisis plans. This may be due to the diverse needs of different schools and for the same reasons a single pre-established crisis plan will not fit the needs of every school. Despite the need for individuality in crisis planning, there are a number of ideas and recommendations about crisis management in the literature that should be accounted for in all crisis plans for best practice compliance. Although there are no rubrics to evaluate school crisis plans, there are, however, rubrics evaluating positive behavior supports in schools (e.g.,

The School-Wide Evaluation Tool – SET) and functional behavioral analyses and behavioral intervention plans (e.g., Technical Adequacy Tool for Evaluation – TATE). Both tools have demonstrated reliability and validity through interrater agreement, convergent validity, and content validity (Cohen, Kincaid, & Childs, 2007; Horner et al., 2004; Iovannone & Romer, 2015).

The Current Study

The goal of this study is to develop a rubric to evaluate school crisis plans and do an initial validation study of the tool. The study occurred in several phases. First, the initial rubric items were developed based on a review of existing crisis plan checklists and the literature base. Then, expert reviewers determined if the proposed items encompass all important areas of crisis prevention, intervention, and postvention a school needs to have in place. Once edits were made to the initial rubric, the edited version underwent a pilot phase assessing inter-rater agreement. The raters discussed any discrepancies and then make changes for clarity and content. Once the rubric was completed, it was utilized to rate the crisis plans from a selection of schools across the nation. Finally, data were analyzed to provide initial validation of the validity, reliability, and dimensionality of the assessment tool.

CHAPTER III

METHODOLOGY

This chapter focuses on the details of the methodology and procedures of the current study. First, the initial development of the School Crisis Assessment and Logistical Evaluation (SCALE) is explained, including issues concerning content-related validity and initial validation and inter-rater agreement. Then, the details related to obtaining the sample plans is outlined, followed by an explanation of the statistics used to analyze the inter- and intra-rater reliability, descriptives, and dimensionality of the SCALE.

Rubric Development

Content-Related Validity

Item development. Validity is the extent to which a concept or measurement is well-founded and corresponds accurately to the real world. It is additionally defined as the degree to which evidence and theory support the interpretations and applications of assessment scores (Newton, 2012). There are different types of validity in psychometrics, including construct validity, content validity, and criterion validity. Sources of validity evidence include the internal structure of the measure, test content, response process, and relations to other measures (Doğan, 2016). This study seeks to develop content-related

validity since it is closely tied to test development and the interpretation of results (Downing & Haladyna, 2006).

Content validity refers to the extent to which an assessment represents all the facets of a given construct. It requires an assessment be based in theory and developed. Content-related evidence generated during the test development can provide support for the reasonableness of the domain assessed, the appropriateness of the scoring rules and procedures, the adequacy of the sampling target domain, and the generalizability of the obtained score (Downing & Haladyna, 2006).

This rubric was developed by completing a thorough review of the literature surrounding school crisis prevention and intervention. Specifically, the only empirically validated checklist available to date, The *Comprehensive Crisis Plan Checklist* (CCPC), a brief checklist classifying approximately 50 items into the crisis categories of prevention, intervention, and postvention, and the PREPaRE curriculum, along with other resources from the literature, were utilized to create the School Crisis Assessment and Logistical Evaluation (SCALE), a comprehensive rubric and rating scale specifying what each crisis plan component should encompass (see Appendix A for the first draft).

A table format was chosen for the rubric items to facilitate ease of use and visual appeal. To use the rubric, evaluators simply identify and analyze the contents of their school crisis plan and compare them with the descriptions associated with a "0", "1", "2", "3", or "4" point rating. A "0" point rating indicates that specific component is missing within the crisis plan being evaluated, while a "4" point rating scale indicates the component is included within the plan at best practice criteria. Scores of "1", "2", or "3" indicate the presence of the component in question, but with specific deficiencies at

varying levels. Level descriptions are labeled "*Not Present*", "*Beginning*", "*Developing*", "*Sufficient*", and "*Best Practice*," respectively. Located at the bottom of each page, there is space for an evaluator to provide any necessary comments or notes. There is also a space to provide the page number of the crisis plan on which the specified item was found within each item.

The items were categorized into the three categories of prevention, intervention, and postvention, based on the results of the literature review. The prevention category is further broken down into the subcategories of logistics, teaming, physical and psychological safety prevention, training, and resource planning. Items within the prevention category include setting up a crisis team comprised of individuals representative of each of the school roles, utilizing the Incident Command System, having prevention programs outlines and in place at the tier 1 level to address mental health and behavior, setting up specific training dates and times, and ensuring the resources needed during a crisis event are prepared beforehand.

The intervention category is composed of the subcategories of emergency protocols, incident-specific plans, and physical and psychological safety intervention. These subcategories can be described as general crisis intervention (e.g., lockdown, evacuation, shelter in place procedures) and more specific crisis intervention plans (e.g., "plan for explosion" and "plan for student suicide").

Finally, the subcategories of communication, long- and short-term considerations, and evaluation comprise the postvention category. These items include procedures for how to tell parents and students about an event, media policies, providing for student and needs, and evaluating the efficacy of the crisis intervention efforts.

Expert review panel. A total of three experts in the field of school crisis prevention and intervention were asked to provide feedback regarding the importance and clarity of each item and each rubric description using the following scale: *Not at all, Somewhat, Very,* and *Don't know.* The panel additionally provided feedback on the representativeness of the school crisis components covered by the items using the following scale: *Not at all relevant, Somewhat relevant, Relevant, Very relevant,* and *Don't know.* Finally, panel members were asked to suggest modifications to items using open-ended response options.

The expert panel consisted of Melissa A. Louvar Reeves, PhD, NCSP, LPC; Amanda Nickerson, PhD, NCSP; and Lisa Coffey, EdS. Dr. Melissa A. Louvar Reeves is a past president of NASP (2016-2017), a nationally certified school psychologist, licensed professional counselor, and licensed special education teacher. She is an associate professor at Winthrop University in Rock Hill, South Carolina. She previously worked for the Cherry Creek School District in Colorado as a school psychologist, and she is a former district coordinator of social/emotional/behavioral services. Dr. Reeves works as a Senior Consultant with Sigma Threat Management and Associates, and is a Crisis Management and Psychological Recovery expert in private practice. She has over 19 years of experience working in public schools, a private school, and both day and residential treatment programs. She, along with Dr. Steven Brock, is a co-author of the NASP PREPaRE School Crisis Prevention and Intervention curriculum and travels nationally and internationally training professionals in crisis prevention and intervention, threat and suicide assessment, the impact of trauma and post-traumatic stress disorder (PTSD) on academic achievement, and cognitive-behavioral interventions. Dr. Reeves

has conducted more than 200 workshops and presentations where she works with schools to establish a positive and safe school climate and to enhance school crisis preparedness. She has coauthored multiple books and publications focusing on school safety and trauma.

Dr. Amanda Nickerson is an expert on school crisis prevention and intervention, with specific expertise in school violence, bullying prevention and intervention, parent and peer relationships, and the assessment and treatment of emotional and behavioral disorders. She has written five books and over 95 journal articles and book chapters. She is a professor at University of Buffalo and serves as the first director of the university's Alberti Center for Bullying Abuse Prevention. She has been consulted by numerous school districts and quoted by media sources on bullying and school violence and the effect they have on victims. She has conducted hundreds of presentations for mental health professionals, teachers, and administrators in the United States and internationally. Dr. Nickerson is qualified to be a reviewer for this evaluation tool due to her extensive knowledge and experience in the field of school crisis prevention and intervention. She is a licensed psychologist in the New York state and a nationally certified school psychologist who is committed to the use of evidence-based practices in her teaching and practice. She is a fellow of the American Psychological Association (Division 16) and is the Coordinator of Research for the National Association of School Psychologists (NASP) School Safety and Crisis Prevention Committee. Additionally, she contributes to the dissemination of evidence-based training as a member of editorial boards (e.g., Journal of School Psychology, School Psychology Review) and the associate editor of the Journal of School Violence.

Lisa Coffey is the Senior Administrator for Psychological and Social Services at Orange County Public Schools in Florida. She has been employed by the Orange County Public Schools District for nearly 22 years, previously serving as a school psychologist (16 years) and program specialist for psychological and social services (3 years). Ms. Coffey received her Education Specialist degree in School Psychology from the University of South Florida. She is a member of the NASP School Safety and Crisis Response Team with a demonstrated history of working in the primary and secondary education industry. She is specifically skilled in crisis intervention, classroom management, and psychological interventions.

The first draft of the School Crisis Assessment and Logistical Evaluation (SCALE) assessment tool was 47 items long and derived from the literature. After reading for clarity and making changes, the rubric was sent to the three expert reviewers for feedback. Dr. Reeves and Dr. Nickerson completed the feedback form as requested. Ms. Coffey provided written feedback in a bullet point manner.

After obtaining feedback from the expert reviewers, changes were made to the instructions to include the identification of strengths as well as weaknesses and to encourage the use of the tool for progress monitoring. The individual rubric names were changed for the "1" and "2" ratings from "*Significant Deficits*" and "*Deficits*" to "*Beginning*" and "*Developing*" respectively. Additionally, the scoring delineations were changed from "*Best Practice*", "*Adequate*", and "*Sufficient Deficiencies*" to "*Best Practice*", "*Adequate*", and "*Development Needed*" as it was noted that school personnel do not often wish to self-identify as having deficits.

Further, many of the items were identified as being somewhat clear, indicating changes needed to be made for raters to identify what each rubric item is attempting to measure. The feedback provided by Dr. Reeves and Dr. Nickerson on the *Importance*, *Clarity*, and *Relevance* scales were used to edit the measure. Significant changes were made to the items in order to make them clearer and more relevant, based on the open-ended responses provided by the experts. Further, some items were separated in order to differentiate between what was being asked.

Initial Inter-rater Agreement

To obtain initial inter-rater agreement and further edit the SCALE for clarity and ease of use, one crisis plan obtained by the lead researcher through a university course was examined by the initial research team consisting of ten graduate students. The research team was requested to score the plan using the rubric and provide feedback on items where the meanings were not clear. All ten of the raters were in agreement on ten of the 48-items on this version of the SCALE. Questions regarding the placement of the item within the plan were addressed (e.g., if the first aid training schedule is in the appendix of the plan does it count for credit in the prevention part of the rubric?). The instructions were changed to clarify that the topic may be addressed at any point in the plan and the plan can be structured in whatever manner best meets the needs of the school. Additionally, questionable items requiring editing were identified and appropriate adjustments were made.

After changes were made to the rubric based on the initial scoring, a second plan was provided to the research team of six graduate students. At this time, 100% agreement was observed on 17 items, and an additional 16 items had inter-rater agreement between

five of the six members of the research team. The team reviewed each item together and came to a consensus on scoring criteria and four items were changed to remove descriptions or criteria that are not easily identified in a written plan. The rubric was finalized at this point (see Appendix B for final version of the SCALE).

Generalizability

This study seeks to develop a comprehensive school crisis plan rubric used to evaluate plans that is broad enough to encompass all potential threats a school may face. Since schools are most often reactive when faced with a crisis situation, a comprehensive school crisis plan is a better option for prevention than individualized specific plans for a given crisis situation. Based on the current literature, it is likely a school would not develop a specific plan until the crisis had already occurred and immediate intervention had become a necessity. Further, many schools have crisis plans that tend to focus heavily on the intervention components of crisis response. Often, little documentation is provided to support prevention and postvention efforts. The broad applicability of this assessment tool can help schools determine if they are prepared for the different types of crisis events they may encounter through the areas of prevention, intervention, and postvention.

Procedure

Following the development of the SCALE, the primary investigator applied for Institutional Review Board approval for the current study. However, the committee made the decision that the research was exempt from review (See Appendix C).

Sample

The sample of crisis plans utilized for this study were obtained from public and private schools from across the United States. A variety of sources were utilized to generate the plans scored for this study. Specifically, plans were obtained primarily through internet searches of school crisis plans. Additionally, plans were solicited through emails to school superintendents or principals, depending on information available. Over 150 emails were sent to schools from 15 states spanning the different regions of the United States (See Appendix D for sample letter). Unfortunately, over 40 of the emails were undeliverable, and response rates to emails were low with only 17 plans obtained from the emails sent out. Further, the primary investigator posted the letter to the National Association for School Psychologists' Crisis Management and Grief Support in Schools Interest Group community. The primary researcher also used her connections to request plans from colleagues and to have them reach out to their own contacts. Schools were either direct (e.g., through sending their own plan) or indirect (e.g., plan was found online) participants in the study. There were no perceived costs or potential negative outcomes of participation.

A total of 65 plans were obtained through these various means from April 2019 through April 2020. However, 17 plans were not able to be used for the study. Plans were not eligible for use if they were from international schools, if the focus was only on the role of the school counselor during a crisis event, or if parts of the plan had been redacted for privacy or protection. Due to the various methods used to recruit participating schools (i.e., websites, emails, verbal requests), a total response rate could not be calculated. A total of 48 independent crisis plans were used for this study. School plans utilized

represented state, district, and building level plans. Further, plans were compiled from numerous states, ranging from New York to California, and represented both rural and urban school sites.

Statistical Analyses

Reliability

Descriptive statistics. Once the crisis plans were obtained, they were duplicated so they could be reviewed by multiple trained graduate students. All school identifying information was removed by the primary investigator, and the pages of the plans were numbered if necessary. The crisis plans were individually rated by two graduate students. Descriptive statistics, including range of school crisis plan scores and the mean score of school crisis plans currently employed by schools were determined for the overall score as well as for the prevention, intervention, and postvention categories.

Inter-rater agreement. Inter-rater agreement or reliability is used to assess the degree to which different raters produce the same scores when they use the same scale, classification, and/or procedure to assess the same subjects or object (Kottner et al., 2011). The statistic kappa was introduced by Cohen to measure nominal scale agreement between a fixed pair of raters (Cohen, 1960). However, since this statistic is restricted to cases where the number of raters is two and the same two raters rate each subject, it is not necessarily the best measure of reliability for this study. Rather, a statistical method that can be used to evaluate cases when subjects who are judging one subject are not necessarily the same as those judging another (Fleiss, 1971).

Specifically, the same two graduate students did not rate every single crisis plan received. For this reason, inter-rater agreement percentages and Fleiss's kappa coefficient

were calculated to determine the rubric reliability. Fleiss's kappa coefficient is a statistical measure for assessing the reliability agreement between a fixed number of raters, rather than the same specific raters, when assigning categorical ratings to several items. The statistic considers the possibility of agreement occurring by chance, and a value greater than .70 is indicative of adequate reliability. For this rubric, inter-rater agreement is defined as a rating within one point for "1", "2", "3", and "4". If one rater gives a rating of "0", all other ratings must also be "0" for inter-rater reliability since "0" indicates the component is missing from the plan. If scores ratings were within one point for "1", "2", "3", or "4", then the items were coded using the lower score. For example, if one rater provided a rating of a "4" for an item and the other rater provided a rating of a "3", the scores would be in agreement and coded as "3" and "3".

Intra-rater agreement. Intra-rater agreement or reliability assesses the degree to which the same rater assesses the same subjects or objects consistently using the same scale over time (Kottner et al., 2011). This is often referred to as test-retest reliability, and the statistic kappa can be utilized to calculate the reliability of the ratings provided. Intra-rater agreement is important for this evaluation tool because school teams will be using the rubric to evaluate the changes their school makes in crisis prevention and preparedness over time (e.g., progress monitoring). To be useful in progress monitoring, the measurement tool must be able to consistently reproduce the same results over time when scored by the crisis team, given that all other variables remain the same. If the assessment tool demonstrates adequate intra-rater agreement, then changes over time in school scores are representative of changes in the plan and levels of implementation, rather than changes due to chance.

Having good intra-rater agreement signifies the internal validity of the tool. Often, these analyses are conducted over two time-points over a relatively short period of time in order to mitigate the chance that differences in ratings are due to age-related changes in performance rather than due to poor assessment stability. For this reason, raters were requested to score a randomized subset of the plans they previously scored a minimum of ten days following the date their initial ratings were received by the primary investigator. Raters were requested to not review their previous scores and plan names were changed to further assist in ensuring there were no carry-over effects. A minimum of 30% of the total plans utilized for the study were scored again in order to provide adequate intra-rater reliability scores.

Dimensionality

Information gathered from the ratings of the school crisis plans necessarily depends on the content of the rubric items. Poorly worded or inappropriate items will not provide useful information. Additionally, rubric ratings should be multidimensional. If school crisis items are given to raters and a simple average of scores is given to determine the quality of the school's plan, then there is no basis for what is being measured and no way to differentially weight items that may be related. However, if the rubric contains related items derived from theory and research, the ratings derived from each content area may be used more appropriately for teaching, learning, and improving what currently is in place. It is only if these items measure distinct and separate traits that it is possible to interpret the measure. This can be achieved through factor analysis. Additionally, the demonstration of a well-defined factor structure can also serve as a safeguard against an

idiosyncratic response mode that may affect responses to all items on a survey or rubric (Marsh, 1984).

Sample size. Before starting scale development research, it is crucial to set a minimum sample size (Worthington & Whittaker, 2007). However, the rules of thumb for determining adequate sample sizes in exploratory factor analysis (EFA) have varied greatly within the literature (Williams, Onsman, & Brown, 2010). Additionally, there have been conflicting recommendations on the magnitude of absolute sample sizes and the participant per-item ratios suggested (Worthington & Whittaker, 2007) and even more conflicting recommendations regarding publication. Some researchers have advised against the strict adherence to the rules of thumb, while other researchers cite a minimum number of samples required for exploratory factor analysis, with 50, 100, or 200 all recommended as minimum numbers (de Winter, Dodou, & Wieringa, 2009; Gorsuch, 1997). Other researchers suggest a ratio of participants to items in the scale with ranges from 2:1 to 20:1 (Costello & Osborne, 2005). Costello and Osborne (2005) found a minimum ratio of 10:1 is required to obtain over 50% of samples with correct factor structure and to have less than 1 item misclassified on a wrong factor. Using this criterion, a total number of 460 plans would need to be reviewed based on the 46-item rubric. However, de Winter, Dodou, and Wieringa (2009) suggested a minimum sample size of 50, but with more plans allowing for greater reliance on the EFA results. For this study, a goal of 50 plans was initially set for the EFA analysis. While a total of 65 plans were initially obtained, only 48 met criteria for evaluation.

Analysis. Exploratory factor analysis (EFA) was conducted using IBM SPSS 25 software. EFA was chosen because the primary purpose of this analysis is to explore the

data collected to determine the underlying structures contributing to the scale. Normality tests were examined; as we expected based on the literature, the data were abnormally distributed and negatively skewed. For this reason, a principal axis factoring analysis was identified as the best choice for analysis. Items were expected to be correlated, so an oblique rotation method was implemented. Promax yields a pure simple structure with clear item loadings since it is based on the rotated matrix provided by Varimax and raises the loadings to powers. The transformation drives down the values of all the loadings, but it does not reduce the larger loadings too much; therefore, the items are much more likely to only load on a single factor instead of multiple (Browne, 2001). Several recognized criteria for the factorability of a correlation were analyzed to determine the appropriateness of factor analysis technique. The number of factors to retain were identified through assessing the number of variables identified by the Kaiser rule (eigenvalues > 1) and doing a visual analysis of the scree plot.

CHAPTER IV

FINDINGS

This chapter described the results from the statistical analyses of the data. First, the descriptive statistics generated from the SCALE are discussed. Then, the results of the inter- and intra-rater reliability for the coding of items are described. Finally, the dimensionality of the measurement tool is addressed.

Descriptive Statistics

Descriptive statistics for each plan were calculated, along with descriptive statistics for each item in the plan. Specifically, the range of school crisis plan scores and the mean score of school crisis plans currently employed by schools were determined for the overall score as well as for the prevention, intervention, and postvention categories. Overall scores ranged from 12.23 percent (23 points) to 92.02 percent (173 points), and the mean overall score of school crisis plans represented in this study is 39.16 percent (73.625 points). See Table 1 for the minimum, maximum, and mean plan scores for each of the categories.

Table 1. Range and means of crisis plan scores.

	Prevention		Intervention		Postvention		Overall	
Minimum	2	2.38%	1	1.56%	0	0%	23	12.23%
Maximum	77	91.67%	62	66.88%	40	100%	173	92.02%
Mean	30.96	36.86%	25.65	40.07%	17.02	42.55%	73.63	39.16%

Based on the labels indicated in the plan, scores between zero and 59 percent are classified as "*Development Needed"* areas, between 60 and 84 percent are classified as "*Adequate*" areas, and scores between 85 and 100 percent are classified as "*Best Practice*" areas. Forty-one of the 48 plans utilized in this study had overall scores falling in the "*Development Needed*" area, while four plans fell in the "*Adequate*" area, and only three plans fell within the "*Best Practice*" area. Further, scores for the prevention, intervention, and postvention categories were calculated and sorted (see Tables 2, and 3). Across all domains, the vast majority of schools were classified in the "*Development Needed*" category.

Table 2. Number of crisis plans falling within each classification category.

Classification	Prevention	Intervention	Postvention	Overall
Best Practice	4	3	3	3
Adequate	2	5	9	4
Development Needed	42	40	36	41

Table 3. Plan scores and percentages.

Plan #	Prevention		Intervention		Postvention		Overall	
1	20	23.81%	27	42.19%	10	25.00%	57	30.32%
2	11	13.10%	22	34.38%	15	37.50%	48	25.53%
3	34	40.48%	21	32.81%	16	40.00%	71	37.77%
4	27	32.14%	10	15.63%	13	32.50%	50	26.60%
5	16	19.05%	22	34.38%	6	15.00%	44	23.40%
6	43	51.19%	32	50.00%	25	62.50%	100	53.19%
7	27	32.14%	30	46.88%	18	45.00%	75	39.89%
8	28	33.33%	32	50.00%	12	30.00%	72	38.30%
9	19	22.62%	12	18.75%	0	0.00%	31	16.49%
10	21	25.00%	22	34.38%	25	62.50%	68	36.17%
11	20	23.81%	9	14.06%	8	20.00%	37	19.68%
12	47	55.95%	34	53.13%	15	37.50%	96	51.06%
13	59	70.24%	27	42.19%	31	77.50%	117	62.23%
14	30	35.71%	44	68.75%	23	57.50%	97	51.60%
15	9	10.71%	24	37.50%	6	15.00%	39	20.74%
16	23	27.38%	6	9.38%	15	37.50%	44	23.40%
17	20	23.81%	6	9.38%	24	60.00%	50	26.60%
18	13	15.48%	5	7.81%	16	40.00%	34	18.09%
19	24	28.57%	21	32.81%	19	47.50%	64	34.04%
20	2	2.38%	16	25.00%	5	12.50%	23	12.23%
21	16	19.05%	7	10.94%	13	32.50%	36	19.15%
22	28	33.33%	28	43.75%	18	45.00%	74	39.36%
23	34	40.48%	40	62.50%	18	45.00%	92	48.94%
24	18	21.43%	9	14.06%	16	40.00%	43	22.87%
25	32	38.10%	19	29.69%	12	30.00%	63	33.51%
26	17	20.24%	20	31.25%	3	7.50%	40	21.28%
27	5	5.95%	18	28.13%	7	17.50%	30	15.96%
28	41	48.81%	34	53.13%	26	65.00%	101	53.72%
29	33	39.29%	37	57.81%	14	35.00%	84	44.68%
30	39	46.43%	33	51.56%	22	55.00%	94	50.00%
31	44	52.38%	33	51.56%	10	25.00%	87	46.28%
32	37	44.05%	24	37.50%	26	65.00%	87	46.28%
33	45	53.57%	21	32.81%	10	25.00%	76	40.43%
34	14	16.67%	1	1.56%	12	30.00%	27	14.36%
35	40	47.62%	22	34.38%	5	12.50%	67	35.64%
36	18	21.43%	30	46.88%	11	27.50%	59	31.38%
37	77	91.67%	37	57.81%	37	92.50%	151	80.32%
38	73	86.90%	59	92.19%	36	90.00%	168	89.36%
39	76	90.48%	57	89.06%	40	100.00%	173	92.02%
40	17	20.24%	6	9.38%	18	45.00%	41	21.81%
41	33	39.29%	42	65.63%	15	37.50%	90	47.87%
42	77	91.67%	62	96.88%	32	80.00%	171	90.96%
43	46	54.76%	45	70.31%	27	67.50%	118	62.77%
44	54	64.29%	46	71.88%	31	77.50%	131	69.68%
45	15	17.86%	9	14.06%	14	35.00%	38	20.21%
46	32	38.10%	38	59.38%	18	45.00%	88	46.81%
47	27	32.14%	12	18.75%	20	50.00%	59	31.38%
48	5	5.95%	20	31.25%	4	10.00%	29	15.43%

Additionally, descriptive statistics were calculated for each of the 46 items that make up the SCALE. For all items, the full range of scores were utilized (e.g., zero to four). Means ranged from .729 (Item 8) to 2.88 (Item 5). Means and standard deviations for each item are presented in Table 4.

Table 4. Means and standard deviations from 48 plans for each SCALE item.

Item Number	Mean	Std. Deviation	Item Number	Mean	Std. Deviation
1	2.56	1.72	24	1.60	1.51
2	2.54	1.43	25	.88	1.45
3	2.15	1.40	26	1.83	1.56
4	1.52	1.53	27	.75	1.23
5	2.88	1.33	28	2.06	1.36
6	1.27	1.54	29	2.75	1.56
7	1.79	1.56	30	2.06	1.58
8	.73	1.32	31	1.79	1.29
9	1.31	1.69	32	1.79	1.32
10	.81	1.39	33	2.00	1.22
11	.75	1.39	34	1.10	1.45
12	.90	1.60	35	.94	1.45
13	1.17	1.46	36	.96	1.20
14	2.00	1.68	37	1.69	1.73
15	1.83	1.67	38	2.67	1.42
16	1.98	1.59	39	2.31	1.42
17	1.46	1.81	40	1.69	1.34
18	1.31	1.75	41	1.35	1.42
19	1.17	1.40	42	1.13	1.35
20	.83	1.24	43	1.54	1.82
21	.96	1.43	44	1.60	1.71
22	2.04	1.60	45	1.42	1.40
23	2.13	1.45	46	1.63	1.61

Examination of the frequency table indicates that there is a substantial range in the items that are included in each plan (see Table 5). Each of the 46 items was present at the "*Best Practices*" level in a minimum of three plans that were evaluated. However, many items had very few frequencies of being present in the plan (i.e., a score of "1",

"2", "3", or "4") and were largely absent from the observed plans. For example, in the area of prevention, 33 plans did not address Natural Surveillance (Item 8) or Review of Physical structures (Item 10), while 34 and 35 plans did not address prevention programs aimed to increase positive behavior supports (Item 11) or social emotional learning (Item 12). However, nearly all schools had some sort of internal communication system in place (Item 2), specific crisis team members (Item 5), and a chain of command or identified roles (Item 3).

In the area of intervention, schools did a better job of having items in place at various implementation levels. However, 31 plans did not address the specific emergency protocols of reverse evacuation (Item 25) or secured perimeter (Item 27). Nearly all schools had documentation of protocols for evacuating the building (Item 23), and specific plans outlining procedures in case of a natural disaster (Item 29), internal threats to the school (i.e., weapons, bomb threat, violence; Item 31), external threats to the school (i.e., intruder, missing child, pandemic; Item 32), and unexpected deaths or injury (Item 33). Finally, in the area of postvention, the vast majority of schools had procedures documented for communicating with media (Item 38) and parents (Item 39). However, 25 school plans did not address how schools should respond when faced with questions regarding memorials or anniversaries of crisis events (Item 43).

Table 5. Frequency of items at each level of implementation.

	0	1	2	3	4		0	1	2	3	4
Item 1	14	0	1	11	22	Item 24	15	12	8	3	10
Item 2	6	7	7	11	17	Item 25	31	7	2	1	7
Item 3	4	17	9	4	14	Item 26	15	7	7	9	10
Item 4	19	7	8	6	8	Item 27	31	7	4	3	3
Item 5	4	3	12	5	24	Item 28	10	8	3	23	4
Item 6	20	16	1	1	10	Item 29	7	7	2	7	25
Item 7	16	5	10	7	10	Item 30	12	7	9	6	14
Item 8	33	7	0	4	4	Item 31	9	11	16	5	7
Item 9	27	4	2	5	10	Item 32	10	11	12	9	6
Item 10	33	5	0	6	4	Item 33	5	13	14	9	7
Item 11	34	5	2	1	6	Item 34	27	5	4	8	4
Item 12	35	2	1	1	9	Item 35	27	13	0	0	8
Item 13	22	13	4	1	8	Item 36	22	16	3	4	3
Item 14	18	1	3	15	11	Item 37	21	5	2	8	12
Item 15	12	18	0	2	16	Item 38	5	7	7	9	20
Item 16	13	9	4	10	12	Item 39	7	7	12	8	14
Item 17	28	0	3	4	13	Item 40	10	15	10	6	7
Item 18	29	2	1	5	11	Item 41	18	13	5	6	6
Item 19	23	9	6	5	5	Item 42	20	16	4	2	6
Item 20	29	7	6	3	3	Item 43	25	4	2	2	15
Item 21	28	8	5	0	7	Item 44	19	11	2	2	14
Item 22	12	9	6	7	14	Item 45	15	16	6	4	7
Item 23	8	11	8	9	12	Item 46	18	9	4	7	10

Reliability

Inter-Rater Agreement

Inter-rater agreement percentages. The joint probability of agreement is the simplest, but least robust, measure of inter-rater agreement. It calculates the percentage of time that the raters agree in a categorical rating system, but does not take into account that agreement may happen solely based on chance. In this study, a total of 48 plans composed of 46-items were rated by two independent raters. Agreement is defined as providing the exact same scores for the item or providing a score within one point for a score of "1", "2", "3," or "4". Disagreement occurred if the ratings were more than one

point discrepant or if one rater scored an item as "0" and the other indicated it was present in the plan.

A total of 2,208 rating pairs were obtained from the 48 crisis plans. Of those, 232 were disagreements, while 1976 rating pairs were in agreement. The inter-rater agreement percentage for the data collected is 89.49 percent, indicating high levels of inter-rater agreement.

Fleiss' kappa. Fleiss' kappa was run to determine if there was agreement between the graduate students' ratings of the 46-item SCALE measurement tool for 48 school crisis plans when accounting for agreement that may happen by chance. There are six basic requirements or assumptions of Fleiss' kappa that must be met in order to ensure this is a good statistical test for the study design. The first assumption is that the response variable being assessed by the two or more raters is a categorical variable. In this study, the categorical variables of "*Not Present*", "*Beginning*", "*Developing*", "*Sufficient*", and "*Best Practice*" were utilized. The categories meet the second assumption that the two or more categories of the response variable being assessed are mutually exclusive. No categories can overlap based on the prior determination of the primary researcher. Scores cannot be both "*Beginning*" and "*Developing*" at the same time, and only one category can be selected for each response.

The third and fourth assumptions have been met. The third requirement assumes that the response variable being assessed has the same number of categories for each rater. All raters utilized the same rating scale/plan and the same options were available for each rater. The fourth requirement assumes that the two or more raters are non-unique. Fleiss et al. (2003, pp. 610-611) state, "The raters responsible for rating one

subject are not assumed to be the same as those responsible for rating another." A total of six graduate students made up the research team. A different combination of two raters was used to rate each of the 48 plans. There is no assumption that the same two raters who rate one plan are the same raters who rate another plan. However, it is possible that some of the rating pairs were selected to rate more than one of the 48 plans.

The raters were independent, meaning that one rater's judgement had no impact on another rater's judgement. Each rater rated the plans independently of each other and did not have access to the other rater's scores. Further, no discussion was permitted during the scoring of plans so other raters could not influence the decisions of others, allowing the study to meet the fifth assumption. Finally, the plans being rated were not specifically chosen for any specific merit. Rather, they represent a random selection of school plans from across the nation that were obtained through a variety of means.

Fleiss' kappa showed that there was strong agreement between raters' judgements, κ=.856 (95% CI, .834 to .879), $p < .001$. Further, the ratings for each of the five categories were all in the strong to almost perfect range (see Table 6).

Table 6. Fleiss' kappa for individual ratings.

Rating Category	Kappa	*p* Value	Lower 95% CI	Upper 95% CI
0	.831	< .001	.789	.873
1	.808	< .001	.767	.850
2	.877	< .001	.836	.919
3	.906	< .001	.865	.948
4	.899	< .001	.857	.940

Intra-Rater Agreement

Intra-rater agreement percentages. As with the inter-rater agreement, intra-rater agreement can be calculated by finding the percentage of time that the raters agreed with their previous scores in a categorical rating system. Once again, this analysis does not

take into account that agreement may happen solely based on chance. A total of 17 plans (35% of all plans utilized) were rescored by the same rater who scored the plan the first time. Plans to rescore were sent out ten days after the first ratings were received by the principal examiner. They were returned a total of 15 days after the initial ratings were obtained. For this analysis, two definitions of agreement were utilized. The first is absolute agreement, indicating that the scores were exactly the same from the first scoring to the second scoring attempts. Additionally, intra-rater reliability was assessment for agreement within one for scores of "1", "2", "3," or "4" to match the definitions of agreement and disagreement used for the rest of this study. Both percentages are calculated here because absolute agreement from the first rating the second rating may be more important for sensitivity to progress monitoring.

A total of 782 rating pairs were obtained from the 17 rescored crisis plans. Of those, 630 ratings were absolute matches, indicating that the total agreement calculated is 80.57 percent. Further, if the second definition of agreement is used, 694 of the ratings were either exact matches or within one point for scores of "1", "2", "3," or "4" for an intra-rater agreement of 88.75 percent. Additionally, intra-rater agreement percentages were calculated for each of the five raters. Absolute agreement percentages ranged from 56.52 to 100 percent, and scores within one point had agreement percentages ranging from 72.83 to 100 percent for the fiver raters (See Table 7).

Table 7. Observed intra-rater agreement percentages by rater.

	Rater 1	Rater 2	Rater 3	Rater 4	Rater 5
N	184	230	184	92	92
Absolute (%)	121 (65.76%)	223 (96.96%)	104 (56.52%)	92 (100%)	90 (97.83%)
Agreement (%)	151 (82.97%)	225 (97.83%)	134 (72.83%)	92 (100%)	92 (100%)

Cohen's kappa. Cohen's kappa was run to determine if there was absolute agreement between a single rater's ratings of school crisis plan components on two separate occasions (e.g., test-retest) when accounting for the agreement expected by chance alone. The statistic was used to calculate total intra-rater agreement, as well as the agreement obtained by each of the five raters. There was moderate agreement between the all ratings observed at time one and at time two, $\kappa = .739$, $p < .001$. Further, the intra-rater agreement was broken down across each of the five raters who scored plans at time one and time two. The intra-rater reliability scores ranged from weak to perfect level of agreement, with three of the raters having intra-rater reliability scores above .9 (see Table 8).

Table 8. Observed kappa ratings for each rater.

Rater	N Cases	Kappa	*p* Value	Level of Agreement
1	184	.558	< .001	Moderate
2	230	.958	< .001	Almost Perfect
3	184	.408	< .001	Weak
4	92	1.000	< .001	Perfect
5	92	.968	< .001	Almost Perfect

Dimensionality

Data Screening

The data were screened for univariate outliers, and none were identified. The normality of the data for each item were analyzed using the Shapiro-Wilk test of normality as it is more appropriate for small sample sized (e.g., <50 samples). In this analysis, the data are normal if the significance value is greater than 0.05. As hypothesized, the data for SCALE items demonstrated significance values less than 0.05 for each item, indicating that this particular subset of scores is not normally distributed. However, this is not a basic assumption underlying an exploratory factor analysis.

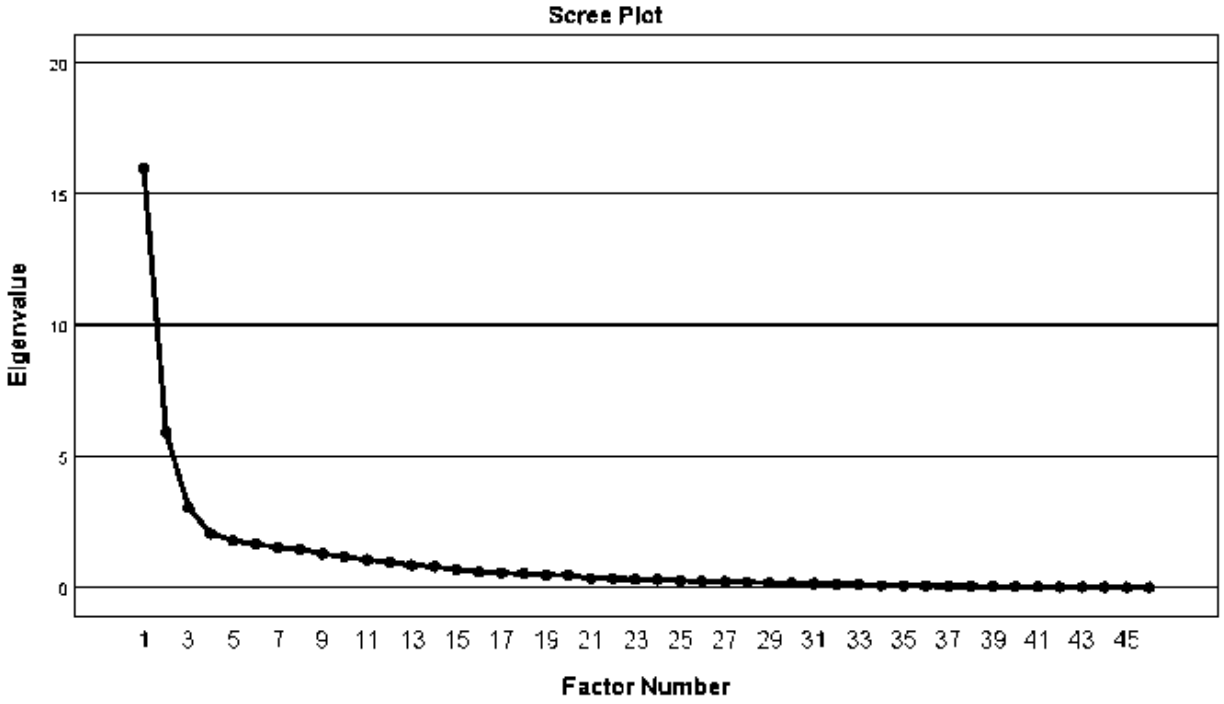
Factor Analysis

Initially, the factorability of the 46 SCALE items was examined using several well-recognized criteria for the factorability of a correlation. First, the primary investigator observed that each of the 46 items correlated at a minimum of .3 with at least one other item. In fact, each item correlated at a minimum of .3 with numerous other items, suggesting reasonable factorability (see Appendix E). The Kaiser-Meyer-Olkin measure was calculated to verify if the sampling is adequate for an analysis. Unfortunately, the analysis revealed that the sampling adequacy is unacceptable and well below the acceptable limit of .6, KMO = .216 (Field, 2013). , However, Bartlett's test of sphericity which tests the null hypothesis that the correlation matrix is an identity matrix was rejected ($\chi 2$ (1035) = 2265.43, $p < .001$). The fourth recognized criteria for factorability is determining if the diagonals of the anti-image correlation matrix are over .5. The data failed this criteria, as only one of the diagonals provided a score above .5 (Item 6). Anti-image correlations ranged from .073 (Item 35) to .569 (Item 6). Finally, the communalities were all above .3, providing support that each item shared some common variance with other items. Based on each of these indicators, the sample of plans is not ideal for factor analysis with all 46 items, likely due to too small of a sample size.

Despite not meeting the recognized criteria for factorability, an initial analysis was run using principal axis factor analysis on the 46 items with oblique rotation (Promax). PAF was chosen due to the abnormally distributed data. Because items are highly correlated, an oblique rotation method was implemented. Promax was chosen because it yields a pure simple structure with clear item loadings since it is based on the rotated matrix provided by Varimax and raises the loadings to powers. The

transformation drives down the values of all the loadings, but it does not reduce the larger loadings too much; therefore, the items are much more likely to only load on a single factor instead of multiple (Browne, 2001). Eleven factors had eigenvalues over Kaiser's criterion of 1 and in combination explained 73.86 percent of the variance. The scree plot showed an inflection that would justify retaining three factors (see Figure 2).

Figure 2. Scree plot for 46 SCALE items.



A principal axis factor analysis was conducting on the 46 items with oblique rotation (Promax), and three factors were requested based on the preliminary analysis. A total of 14 items were eliminated because they did not contribute to a simple factor structure and failed to meet a minimum criteria of having a primary factor loading of .3 or above, and no cross-loadings of .3 on any factor (see Table 9). Once these items were removed, a final principal axis factor analysis with oblique rotation of the remaining 21 items was conducted with three factors explaining 58.33 percent of the variance. The

KMO increased to acceptable levels (KMO = .747) and all of the remaining items had diagonals of the anti-image correlation matrix over .5, indicating these items better meet the criteria for factorability. Additionally, all of the communalities for the remaining items were over the .3 recommendation. All items in this analysis had primary loading over .3, and only three items had cross-loadings above .3 (e.g., Natural Disaster, Triage & Data Monitoring, and Memorials/Anniversaries). However, each of these items had stronger primary loadings (e.g., .72, .56, and .52 respectively). The factor loading matrix for this final solution is presented in Table 10.

Table 9. List of items removed from 3-factor model.

Item Number	Label
7	Key Stakeholders
13	Referral System
14	Dissemination and Training
19	Crisis "Go-Kit"
21	Crises Off-Campus
25	Reverse Evacuation
27	Secured Perimeter
35	Psychological First Aid
36	Caring for the Caregivers
37	Verification of and Releasing Information
38	Media
39	Parents
42	Triage & Data Monitoring
45	Meetings

Factor labels that suite the extracted factors were difficult to name. The first factor described action components necessary for immediate intervention in the face of a crisis and is labeled "action." The second factor is comprised of items that outline prevention strategies and is labeled "prevention," while the third factor is best described as "support." However, items do not fit cleanly into these labels.

Table 10. Obliquely rotated component items for 31 SCALE items.

Component	Factor 1	Factor 2	Factor 3
Communication	.814		
Command Chain	.371		
Special Needs Considerations	.392		
First Aid Training	.652		
Classroom "Go-Kits"	.602		
Reunification	.939		
Evacuation from Building	.786		
Evacuation to Secondary Site	.808		
Shelter in Place	.880		
Lockdown	.723		-.323
Natural Disaster	.939		
Manmade Disaster	.781		
Threats to School – Internal	.850		
Threats to School – External	.557		
Building Security	.582		.361
Regular Plan Evaluation	.356		
Plan Evaluation Following Crisis	.680		
Crisis Team Meetings		.309	
Natural Surveillance		.964	
Access Control		.695	
Review of Physical Structures		.984	
Positive Behavior Supports		.917	
Social Emotional Learning		.736	
Template Letter		.542	
Unexpected Deaths/Injury		.560	
Memorials/Anniversaries	-.361	.503	
Crisis Team Members			.447
Regular Drills and Training Sessions			.901
Resources			.696
Student Support			.682
Referral List			.764
Eigenvalues	11.782	4.114	2.185
Percentage of total variance	38.006	13.271	7.049
Number of test measures	17	9	5

**Rotation converged in 4 iterations

CHAPTER V

DISCUSSION

This chapter reviews the results of the current study and expounds on the implications and conclusions that may be drawn based on the information obtained through the course of the study. The potential utility of the School Crisis Assessment and Logistical Evaluation (SCALE) tool is presented, along with implications for schools and further practice. Finally, limitations of the current study will be outlined, as well as directions for future research.

Quality of School Crisis Plans

Crisis events of some scale will likely impact every school (Brock et al., 2007). The question is not if schools will experience a crisis, but when. Schools may not experience a widespread or severe crisis frequently, but previous research suggests that schools commonly experience a lower level or more targeted crisis situation (e.g., student assault, death or serious injury of student or staff member, etc.) on a yearly basis (Brock et al., 2009). For this reason, schools must be actively preparing for these events.

Best practice preparation begins with the development and implementation of a comprehensive crisis plan. However, school personnel frequently identify time and roles as barriers that are negatively impacting their ability to plan for emergency situations

(Zantal-Wiener & Horwood, 2010). Specifically, opportunities for meeting and developing a plan are limited, especially if a plan is largely undefined or needing significant revisions to meet best practice standards. Further, administrators, teachers, and specialty staff have more than enough responsibilities on their plates without adding crisis prevention and intervention. It is documented through numerous studies that teaching perpetually ranks as one of the most stressful occupations in the United States, with large proportions of teachers and administrations exhibiting symptoms of burnout each year (Jarvis, 2002). Highly stressed teachers are likely to have lower self-efficacy (Kyriacou, 2001), decreased implementation of evidence-based practices in their classrooms (Larson, Fiat, Cook & Lyons, 2017), weaker relationships with students (Yoon, 2008), and are ultimately more likely to leave the profession (Leiter & Maslach, 2004). These factors highlight the importance of strong administrator support when developing and implementing comprehensive school emergency planning measures.

While the literature suggests that nearly 95% of schools have created crisis response plans (Adamson & Peacock, 2007), the results of this study suggest that the vast majority of school have crisis response plans that are significantly below best practice criteria for each of the three subcategories of prevention, intervention, and postvention response. Federal statutes obligate schools to have crisis plans in order to receive federal funding (U.S. GAO, 2007; United Sates Department of Education, 2006). However, there are no laws to dictate the quality of these crisis plans. The plans obtained for the current study varied significantly in their length, quality, and inclusion of prevention, intervention, and postvention actions. The limited results of this study are consistent with

the literature base that has demonstrated that plans lack comprehensiveness (U.S. GAO, 2007).

The average scores on the prevention, intervention, and postvention subcategories of the SCALE demonstrated that the vast majority of plans were in the "*Development Needed*" area across the board, with the average percentage obtained on this category reaching just below 37 percent for prevention, approximately 40 percent for intervention, and just above 42 percent for postvention. Forty-one of the 48 plans did not obtain enough points through the evaluation of their plans to reach the 60 percent threshold for adequate plan development for overall score. However, there was significant variability in schools' plans. This could indicate that some schools have many of the items covered in the SCALE documented in other places. For example, the positive behaviors supports may be outlined in the school discipline code rather than in their school crisis plan. Additionally, some plans were excluded from the current analysis because they focused solely on the role of the school counselor during a crisis event. It is likely these schools may have other documentation in place to outline the responses of other specialists, teachers, and administrators.

Prior to the completion of this study, the primary investigator hypothesized that school crisis plans would be most developed in the intervention category, and more likely to need additional development in prevention and postvention. However, the three categories were similar in average scores. Surprisingly, the postvention category score was higher than that of the intervention category. This may be due to the increased number of items within the intervention category (i.e., 16 items) when compared to the number of postvention items (i.e., 10 items). It is notable that despite the emphasis placed

on addressing what schools are doing when crises occur, intervention items for basic threats were omitted from many of the crisis plans. If schools do not address many of the common crisis events that may occur within their plan, they are unlikely to be able to prevent or be prepared for these times.

Utility of the SCALE and Implications for Practice

Research related to studying school crisis situations remains challenging for a number of reasons. For obvious reasons, crisis events cannot be manipulated or evoked for the purpose of research and crisis events are relatively low frequency events that vary substantially based upon the specific crisis and the severity of the event. Despite these difficulties, emerging research is beginning to investigate the content of school crisis plans, and unfortunately, researchers have continuously found many plans are inadequate in their coverage and implementation (Gurdineer, 2014; U.S. GAO, 2007).

Currently, checklists and surveys are viable options for collecting data on the content of school crisis plans (Brock et al., 2016). Numerous informal checklists have been published online and in books, but there is only one measurement tool that has been empirically studied to date – the *Comprehensive Crisis Plan Checklist* (CCPC; Aspirnati et al., 2011). To use the CCPC, evaluators compare the contents of their own school crisis plan with the list of CCPC items to distinguish if "yes," the item on the checklist is present within their plan or "no," the item on the checklist is not present within their plan.

While checklists provide a good starting place to evaluate a school's crisis plan, it does not provide clear direction of what to do if an item is not represented within the current school crisis plan. Further, there is no way to evaluate the quality of what is in place. Schools would benefit greatly from having an idea of what constitutes best practice

for a given item, along with small steps they may be able to take to move toward best practice goals. Therefore, rubrics with rating scales provide more substantial feedback than a checklist alone. The information in a rubric helps the evaluator or team understand where they are in the development of their school crisis plan (Erickson, 2011).

The purpose of the SCALE is to describe the current state of the schools' crisis plan, to identify goals to move the site toward achieving best practice in school crisis prevention and intervention efforts, and to measure and monitor the progress of changes that are being made. Ideally, the measure would be utilized by school crisis teams who are familiar with the inner workings of the school as they will be the people setting goals and measuring progress. Alternatively, a trained external consultant could complete the SCALE after careful review of the crisis plan and supporting documents and meeting with the school crisis team to ask questions, clarify ratings, and assist in goal development.

As previously discussed, other school documents may also be useful in fully utilizing the SCALE effectively. Prevention and postvention efforts may be outlined in documents other than the school's crisis plan. For this reason, the SCALE instructions include gathering other supporting documents before completing the measure. However, if multiple documents exist and are being referred to in order to create goals related to crisis preparedness, schools should ask themselves if they have a problem with integration. Specifically, are the necessary levels (i.e., prevention, intervention, and postvention) and areas (e.g., counseling, drills, and positive behavioral supports) integrated into a single comprehensive plan as recommended by the literature?

The preliminary inter- and intra- rater reliability levels for the SCALE are in the moderate and strong ranges, respectively. Strong inter-rater reliability indicates that two different people who rate the same plan demonstrated agreement in the majority of scores. This is an important distinction for practice because different people in a school district (e.g., principal, superintendent, school psychologist) are likely to rate the same plan similarly. Perhaps more important than the inter-rater reliability, the adequate intra-rater reliability scores support the use of the SCALE in measuring and monitoring progress toward goals. With moderate to high levels of intra-rater reliability, school teams can be confident that changes in scores are due to changes in performance rather than due to poor assessment stability. The recommendation is that this plan be utilized at least twice per year to create and monitor goals. For example, the SCALE may be conducted during the first crisis team meeting of the school year. Then, the team would analyze the results, identify current areas of strength and weakness, and develop actionable steps to improve selected areas. Subsequent meetings would track progress toward goal completion and the SCALE would be reimplemented early in the Spring semester to assess whether goals have been met and to identify new areas of strength and weakness.

The expectation for schools is not that they are implementing every item to best practice standards. In fact, the SCALE is designed to be comprehensive enough that there is continuous room for growth. Even if a school were to meet best practice standards for every item, there would continue to be benefit from reviewing the plan utilizing the assessment on a regular basis. School crisis plans are living documents, being constantly edited as crisis team members come and go, the school becomes more aware of specific

threats faced, or the culture shifts, along with any other precipitating factors that may lead to a reevaluation of current practices. The goal is that the SCALE be used as a tool to assist crisis teams in consistently evaluating current practices and actively taking steps for improvement.

Limitations

This study was not conducted without limitations, including the research design and scope, response rate and number of participants, and the dimensionality of the measure. The primary aim was to develop a rubric tool for the evaluation of school crisis plans and to provide initial validation through a pilot study. No demographic variables were collected that may have allowed for greater exploration of the data and support that the SCALE can be effectively utilized for schools that vary in size, resources, and student characteristics (e.g., social economic status (SES), ethnicity backgrounds, the percentage of students with disabilities). Further, information on the type of plan (e.g., district or building level) and the type of building (e.g., elementary, secondary, etc.) may also impact the rating obtained on the SCALE. Therefore, the results of this pilot study may not generalize to schools that have different demographic profiles than those utilized in this study.

The pilot study was limited by the number of plans obtained through the various methods attempted by the primary investigator. The majority of plans were obtained through online searches or by colleagues in the field of school crisis prevention and intervention. Few plans were returned from the email sent. This prompts the question of whether the plans utilized for the study are an accurate representation of school crisis plans. For example, it may be the case that only schools with fairly developed plans were

available for this study. Would the overall scores further decrease if an accurate representation of plans were available? The generalizability of this study is minimal due to these constraints.

Further, based on the various plan collection methods, total response rate was unable to be calculated. However, it is evident that recruitment was a challenge, which is unfortunately the norm in the area of crisis prevention and intervention research. Previous researchers have noted that school professionals are often reluctant to share crisis plan materials with individuals outside their system due to confidentiality purposes and the perceived potential legal threat of having the information out to the public (Gurdineer, 2013).

One of the primary SCALE goals is to assist schools in assessing the implementation of their school crisis plans. Many plans outlined specific procedures; however, there is no way from reviewing the plan alone to determine if schools are actually following through with implementation. In the current study, outsider raters completed the SCALE using only the crisis plans ascertained. Ideally, the SCALE would be utilized by the crisis team to assess their own levels of implementation. Alternatively, an outside consultant could use the SCALE in addition to an interview and/or walkthrough to assess first, if the procedures are in place and second, if the procedures are being implemented. The design of this study does not allow for results to be evidence of actual implementation levels.

Finally, using the principal axis factor analysis may not have been the best fit for the data. The data did not meet minimum criteria for factoring, likely due to the limited number of plans utilized in the study. The final three-factor version removed 14 of the

original 46 items, which could improve the utility of the measure as schools may be more likely to complete a shorter assessment. However, a larger sample size may have increased the factorability and revealed a better factor structure. Further, the items that did not fit into the factor structure and were removed were items that both the literature and the expert reviewers suggest are highly relevant and very important for a school crisis plan to address. It is worth questioning if these items should be removed from a theoretical standpoint, especially since a minimum of three schools met best practice standards for all items.

Future Research

The literature base reviewing school crisis prevention and intervention remains limited, and the majority of current research rarely provide information beyond descriptive statistics. The content of school crisis plans remains largely under researched at this point (Nickerson & Gurdineer, 2012). This study aimed to address this hole in the literature base, and future research should continue to focus on the content, quality, and implementation of school crisis plans. The current study provided data supporting the use of the SCALE to assist school teams in assessing and strengthening their school crisis plans, although limited. Additional research with the SCALE is needed. Recreating this study with a larger sample size would further support the reliability of the measure. The dimensionality of the scale should be further evaluated to determine if items should be removed, revised, or remain. Further, future research should explore criterion related validity to determine if the measure is highly correlated to other similar measures and unrelated to dissimilar measures schools readily utilize.

Future research should also expand upon the current study to address additional research questions regarding the usability of the SCALE. In the current study, two trained graduate students scored each plan for reliability measures. It would be notable to determine if school teams and a trained outside consultant produce reliable ratings of the same crisis team. This would be a step in the right direction to ensuring schools are equipped to evaluate their own plans independently. Further, this could allow future research in school crisis planning to be completed with more ease. Schools that are hesitant to release their crisis plans due to confidentiality concerns may be more willing to submit their SCALE scores to a researcher.

An additional avenue of future research is determining if the SCALE is adequate at progress monitoring and sensitive to changes made in school crisis planning. Research could focus on the types of goals schools set following the use of the SCALE and how action steps are developed. Research in this area may determine whether schools require additional training in order to best utilize the measure. Research may also focus on whether schools who consistently use the measure see increases in scores over time. Further, research may address whether the overall score percentage correlates with the crisis team's evaluation of crisis response following an event.

Additionally, future research should focus on assessing not just the content of the school crisis plans, but also the implementation. Future research could assess whether the steps documented in the school plan are known by school staff and followed in the case of a crisis event. Developing a walkthrough tool to use in tandem with the SCALE may be a future avenue of research to also assess for implementation and training.

Finally, this study was designed and data were collected before the international COVID-19 pandemic changed the scope of education as we previously knew it. Administrators, teachers, parents, and students are faced with uncertain knowledge of what the future will hold. In the post-COVID-19 era, students and teachers alike are likely to experience increased academic demands, greater sensitivity and hyper-arousal to social dynamics, and grief over potential losses and uncertainty regarding a future with which they have limited control. These needs will necessitate that schools have a referral system in place to identify students and staff in need, and the response to these needs will be of the utmost importance. Further, many schools are considering moving to block schedules or half-days where students will spend time in the traditional educational setting and using eLearning. The use of technology will potentially complicate the school crisis response and will need to be addressed in school plans. Future research should adapt to these changes and work to develop and implement best practices in the face of the changing educational landscape.

Conclusion

School crisis plans are essential when it comes to schools being prepared for a crisis event. They effectively outline resources, the procedures for responding to an event, and for promoting recovery (Brock et al., 2009). Although the majority of schools report having a crisis response plan, there are no current mandates for what constitutes best practice or what the plans should encompass (U.S. GAO, 2007). For this reason, the quality is often lacking and schools often do not include all the recommended components.

Prior to the current study, checklists have been the primary way schools determine the quality of their crisis plans. While a good start, checklist do not allow schools to evaluate the quality of what they have in place or consider options for improvement. The goal of the current study was to develop a rubric tool for the evaluation of school crisis plans. The School Crisis Assessment and Logistical Evaluation (SCALE) was developed to assist schools in assessing current strengths and weaknesses and to provide guidance on how to improve plans to meet best practice standards. The current study provided initial validation of the validity and reliability of the rubric. Results also included information that may help in the future development and revision of school crisis plan rubrics.

Future research should continue to examine the usability of the SCALE to assess plan content. Research should expand to provide further support for the validity and reliability of the measure. Additionally, further research should be conducted to assess the sensitivity of the measure in assessing changes in school crisis response (e.g., progress monitoring). As the field continues to accumulate more research in the field of crisis plan content, steps should be taken to ensure implementation. The current study provides a step in that direction.

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APPENDICES

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APPENDIX A

Rubric First Draft

School Crisis Plan Evaluation Tool (SCPET)

Date: _____ **School/District: _____**

Person Completing Assessment: _____

Purpose:

This tool is designed to assist sites with two major goals.

a) Describe the current state of the site's current school crisis plan

b) Identify goals to move the site toward achieving best practice in school crisis prevention and intervention efforts

Instructions:

1. **Form a Crisis Team.** Identify varied site-based personnel to participate as members of the school crisis team.

2. **Review Tool and Gather Crisis Plan and Any Other Supporting Documents.** Prior to meeting as a team to complete the SCPET, each team member should familiarize him/herself with this tool and the school's crisis plan, along with any other supporting documents highlighting crisis response and/or intervention.

3. **Meet to Rate Crisis Plan.** Schedule approximately 1-2 hours to meet as a team to rate the site's current crisis plan across the three content areas of Prevention, Intervention, and Postvention. A team member identified as the "recorder" may document notes, barriers, concerns, and questions raised by the team in the Comments section provided at the bottom of each page.

4. **Complete the SCPET Rubric Summary.** The summary may be completed at the team meeting after ratings for each component have been selected, or an identified team member may complete this step at a later time. This summary yields scores for each content area and their core components as well as a total crisis plan score. Each score can be used to determine whether the area reflects an adequate level of implementation.

5. **Create Goals to Move Site Toward Best Practice.** The school crisis team should meet again to analyze results, identify areas of weakness, and develop goals to improve these areas.

Prevention

Component 1: Logistics

Component Items	0 *Not Present*	1 *Significant Deficits*	2 *Deficits*	3 *Sufficient*	4 *Best Practice*	Page #	Score
Mission Statement	No mission statement is in place	Mission statement does not answer the questions the what and how of the crisis plan's purpose and is not disseminated to school personnel annually	Mission statement exists and is disseminated to all school personnel annually, but does not clarify the what/how of the crisis plans purpose	Mission statement clarifying the what and how of the crisis plan's purpose exists but is not disseminated to all school personnel on an annual basis	Mission statement clarifying the what and how of the crisis plan's purpose exists and is disseminated to all school personnel annually		
Communication	No protocol for communication exists and emergency numbers are not easily accessible	No communication protocol is in place, but emergency numbers are posted by phones for easy access	A communication protocol is in place for emergency situations with one form of communication identified, but emergency phone numbers are not easily accessible	A communication protocol is in place for emergency situations with two forms of communication identified, but emergency phone numbers are not easily accessible	A communication protocol is in place for emergency situations indicating primary and secondary forms of communication (i.e., intercom system, cell phones, walkie talkies, etc.) and all school personnel have emergency numbers posted by phones for easy access		
Command Chain	There is no documentation of the chain of command	The plan outlines a command chain, but it is not clear or succinct	The plan utilizes the ICS, but not all roles are clearly defined or filled	The plan outlines a clear command chain, but does not utilize the ICS	The plan utilizes the Incident Command System (ICS)		

Special Needs Considerations	No considerations for individuals with special needs are documented	Plan meets one of the criteria listed below	Plan meets two to three of the criteria listed below	Plan meets four to five of the criteria listed below	There are requirements for responding to the needs of students and staff with special needs, meeting all of the criteria listed below		
	Criteria required for addressing students with special needs includes: ___ Medical concerns ___ Transportation for physically disabled students/staff ___ Developmental disabilities ___ Deaf or blind individuals ___ Limited English proficiency ___ Individualized evacuation plans						
Comments					**Total Logistics Score:** 16 Points Possible		

Prevention

Component 2: Teaming

Component Items	0 *Not Present*	1 *Significant Deficits*	2 *Deficits*	3 *Sufficient*	4 *Best Practice*	Page #	Score
Crisis Team Presence	No crisis team is in place	The crisis team includes fewer than four members	The crisis team includes at least four members, including admin., teacher, and related service-providers	The crisis team includes at least four members: admin., teachers from a variety of grades/subject areas, and related service-providers	The crisis team includes at least five members: admin., teachers from a variety of grades/subject areas, related-service providers, parent rep., and student rep.* who have been specifically chosen for the team		
Crisis Team Roles	The ICS is not implemented	The Incident Commander has been identified	Five of the roles below are filled	All the roles below are filled by a minimum of five different individuals, but no backups have been identified	All the roles below are filled by a minimum of five different individuals and backups have been identified		
	The leaders who fulfill positions within the Incident Command System include: ___ Incident Commander ___ Public Information Officer ___ Safety Officer ___ Liaison Officer ___ Mental Health Officer ___ Planning Section Chief ___ Operation Section Chief ___ Logistics Section Chief ___ Finance and Administration Section Chief						
Crisis Team Activity Frequency	No crisis team meetings occur or schedule is not in the plan	The crisis team meets once per year	The crisis team meets twice per year	The crisis team meets three times per year	The crisis team meets at least once per quarter (four time per year)		
Key Stakeholders	No key stakeholders are consulted when developing the crisis plan	One of the individuals below are included in the teaming process and plan development	Two of the individuals below are included in the teaming process and plan development	Three of the individuals listed below are included in the teaming process and plan development	All the individuals below are included in the teaming process and plan development		
	Key stakeholders to consider include: ___ School board members ___ Parents ___ Students ___ First responders						

Comments	**Total Teaming Score:** 16 Points Possible		

Prevention

Component 3: Physical and Psychological Safety Prevention

Component Items	0 *Not Present*	1 *Significant Deficits*	2 *Deficits*	3 *Sufficient*	4 *Best Practice*	Page #	Score
Natural Surveillance	Natural surveillance is not addressed	One of the natural surveillance options are addressed	Two are the four natural surveillance options are addressed	Three of the four natural surveillance options are addressed	All four areas below are addressed		
	Natural Surveillance includes: ___ Clear line of sight from all classrooms and common areas with an outside wall to the outside of the building ___ Cameras monitoring high traffic areas ___ Proper lighting inside and outside of the school buildings ___ Students have adequate supervision, especially during transition times						
Access Control	There are multiple points of access and no visitor protocols	There are multiple points of access to the inside of a building, but visitor protocols are in place	There is only one access point inside of a building, but visitor protocols are not in place	There is only one access point inside of a building; visitor control procedures are in place	There is only one access point inside of a building through double entryway doors; visitor control procedures are in place; outside doors lock automatically		
Review of Physical Structures	Building safety is not reviewed unless a problem arises	Building safety is reviewed, but without a set schedule	Building safety is reviewed every two years	Building safety is reviewed once per year	Building safety is reviewed twice per year (i.e., checking doors, reviewing procedures, etc.)		
Positive Behavior Supports	There are no school-wide expectation s nor a discipline code	No school-wide expectations are in place, but a clear discipline code is in place	There are school-wide expectations and a clear discipline code, but without protocols for reinforcement or consequences	There are school-wide expectations and a clear discipline code with consistent consequences for problem behavior	There are school-wide expectations and a clear discipline code with consistent reinforcement for engaging in appropriate behaviors and consistent consequences for problem behavior		
Social Emotional Learning	SEL program is not identified	SEL program is not identified, but supports are offered to some students	SEL program is identified and offered to some students	SEL program is identified and is in place for students identified through a	SEL program is identified and is universally in place		

				referral system			
Referral System	There is no reporting system in place	A documented reporting system is in place, but there is no protocol for monitoring referrals	A documented reporting system that is regularly monitored is in place, but school staff are not specifically trained	Some school personnel are trained to maintain a high level of awareness for suspicious or dangerous activities and a documented reporting system that is regularly monitored is in place	All school personnel (i.e., teachers, administrators, cafeteria staff, etc.) are trained to maintain a high level of awareness for suspicious or dangerous activities and a documented reporting system that is regularly monitored is in place		
Comments					**Total Physical and Psychological Safety Prevention Score:** 24 Points Possible		

Prevention

Component 4: Training

Component Items	**0** *Not Present*	**1** *Significant Deficits*	**2** *Deficits*	**3** *Sufficient*	**4** *Best Practice*	**Page #**	**Score**
Dissemination	The plan is not disseminated to school staff	The plan is disseminated to most staff members, but not annually	There is a documented procedure for the dissemination of the plan to some, but not all, staff members annually	There is a documented procedure for the dissemination of the plan to all school staff annually, but there is no procedure dissemination for building visitors	There is a documented procedure for the dissemination of the plan to all school staff (i.e., teachers, administrators, custodians, etc.) annually and when changes are made. There is also a protocol for disseminating crisis procedures to all individuals in the building (i.e., substitutes, volunteers, etc.)		
First Aid Training	No staff member has first aid or CPR training	One staff member is trained in first aid and CPR	Five staff members are trained in first aid and CPR	Seven staff members are trained in first aid and CPR	All school personnel are trained in first aid and CPR		
Regular Drills and Training Sessions	Practice and training sessions do not occur.	Practice and training sessions are scheduled at least yearly.	Regular and ongoing practice and training sessions are schedules and occur at least once per semester, but do not occur at all times of the school day.	Regular and ongoing practice and training sessions are scheduled and occur at least once per semester. Drills are practices at all times during the school day (i.e., when students are at recess, specials, lunchroom, etc.) Training does not go beyond drills.	Regular and ongoing practice and training sessions are scheduled and occur at least one per 9 weeks. Drills are practices at all times during the school day (i.e., when students are at recess, specials, lunchroom, etc.), and training sessions include drills, round tables, and full scale when applicable.		
Comments					**Total Training Score:** 12 Points Possible		

Prevention

Component 5: Resource Planning

Component Items	0 *Not Present*	1 *Significant Deficits*	2 *Deficits*	3 *Sufficient*	4 *Best Practice*	Page #	Score
Research Bank	There is not a bank of readings and/or relevant information regarding crisis situations	Readings and relevant information regarding crisis situations is compiled and accessible to one school staff member	Readings and relevant information regarding crisis situations is compiled and accessible to some school personnel	Readings and relevant information regarding crisis situations is compiled and easily accessible by all school personnel	Readings and relevant information regarding crisis situations is compiled and easily accessible by all school personnel and relevant stakeholders (i.e., parents, school board, etc.)		
Template Letters	The plan does not include sample letters or letter templates	The plan includes letter samples for at least one crisis situation	The plan includes letter samples for at varying crisis situations	The plan includes letter templates to parents for varying crisis situations that can be easily adapted for use	The plan includes letter templates to parents and community members for varying crisis situations (including extreme weather, student suicide/attempt, teacher death, etc.) that can be easily adapted for use		
Crisis Box/Cart	No building level cart exists.	There is at least one building level cart that contains 25% of the items listed below.	There is at least one building level cart that is easily accessible and stocked/updated once per year. The cart contains 50% of the items listed below.	There is at least one building level cart that is easily accessible and stocked/updated twice per year. The cart contains 75% of the items listed below.	There is at least one building level cart that is easily accessible and stocked/updated four times per year. The cart contains 90% of the items listed below.		
	The administrative crisis box/cart should include the following: ___ Crisis plan copy ___ Phones and radios necessary for communication ___ Contact information for all students, parents, guardians, and staff ___ List of CPR/first aide trained staff responders ___ Emergency phone numbers ___ Flashlights and batteries ___ Student health records ___ Class rosters ___ Master keys to the school building, including copies for responders ___ Bottled water ___ Building maps ___ Architectural blue prints ___ Utility and gas line maps						

	___ Aerial map of school and surrounding community ___ First aid supplies for at least 20 people						
Classroom Go-Bags	There are no classroom go-bags prepared.	There is at least one go-bag per grade that contains at least 25% of the items listed below.	Each classroom has a go-bag that is easily accessible and stocked/updated once per year. The go-bag contains 50% of the items listed below.	Each classroom has a go-bag that is easily accessible and stocked/updated twice per year. The go-bag contains 75% of the items listed below.	Each classroom has a go-bag that is easily accessible and stocked/updated four times per year. The go-bag contains 90% of the items listed below.		
	Each classroom go-bag should contain the following: ___ Class roster ___ Photos of each student ___ Emergency contact information ___ Student release information ___ First aid supplies for at least 10 people ___ At least two days' worth of student medications ___ Snacks for students ___ Bottled water						
Comments					**Total Resource Planning Score:** 16 Points Possible		

Intervention

Component 1: Emergency Protocols

Component Items	**0** *Not Present*	**1** *Significant Deficits*	**2** *Deficits*	**3** *Sufficient*	**4** *Best Practice*	**Page #**	**Score**
Crises off-campus	The plan does not address off-campus crises	Plan specifies how the crisis team will be enacted, but does not outline any responses	Plan specifies how crisis team will be enacted and outlines some protocols to be taken before school resumes, but they are incomplete	Plan specifies how the crisis team will be enacted and what steps need to be taken before school resumes to best meet the needs of students (i.e., staff meetings, preparing triage, etc.)	Plan specifies how the crisis team will be enacted and what steps need to be taken before school resumes to best meet the needs of students (i.e., staff meetings, preparing triage, etc.). Additionally, there is a plan in place for addressing crises occurring during school-holidays/breaks		
Reunification	There is no mention of reunification in the crisis plan.	There is an undocumented procedure for reunifying students and caregivers noted in the plan.	There are documented procedures for reunifying students and caregivers on campus.	There are documented procedures for reunifying students to caregivers, both on and off campus.	There are documented procedures for reunifying students to caregivers, both on and off campus, with sign-out sheet for all teachers.		
Specific Protocols	Procedure is not in place	Procedure exists with specific steps outlined for school personnel	Procedure exists with specific steps outlined for school personnel and plans for addressing students who are in the different areas of the building	Procedure exists with specific steps outlined for school personnel and plans for addressing students who are in the different areas of the building. Plans address the needs of students with physical and mental disabilities	Procedure exists with specific steps outlined for school personnel and plans for addressing students who are in different areas of the building (restrooms, specials, lunchroom, etc.). Plans also address how the school personnel will know it is time to end the procedure. Plans address the needs of students with physical and mental disabilities		
Evacuation from Building							
Evacuation to Secondary Site							

Reverse Evacuation							
Shelter in Place							
Secured Perimeter							
Lockdown			*Procedure also contains water and food plan that can sustain the entire population over night	*Procedure also contains water and food plan that can sustain the entire population for up to one week	*Procedure contains water and food plan that can sustain the entire population for up to three weeks		
Comments					**Total Emergency Protocols Score:** 32 Points Possible		

Intervention

Component 2: Incident-Specific Plans

Component Items	0 *Not Present*	1 *Significant Deficits*	2 *Deficits*	3 *Sufficient*	4 *Best Practice*	Page #	Score
Natural Disaster	No natural disaster plans are in place	Procedure exists for at least one plan, but does not include specific steps	Procedure exists with specific steps outlined for school personnel for one plan listed below	Procedure exists with specific steps outlined for school personnel for two plans listed below	Procedure exists with specific steps outlined for school personnel for all plans listed below		
	Natural Disaster Plans: ___ Fire ___ Severe weather: _____ ___ Severe weather: _____						
Manmade Disaster	No manmade disaster plans are in place	Procedure exists for at least one plan, but does not include specific steps	Procedure exists with specific steps outlined for school personnel for one plan listed below	Procedure exists with specific steps outlined for school personnel for two plans listed below	Procedure exists with specific steps outlined for school personnel for all plans listed below		
	Manmade Disaster Plans: ___ Biological agent incident ___ Chemical/hazardous materials ___ Explosion						
Threats to the School - Internal	No internal threat plans are in place	Procedure exists for at least one plan, or plans do not include specific steps	Procedure exists with specific steps outlined for school personnel for three plans listed below	Procedure exists with specific steps outlined for school personnel for five plans listed below	Procedure exists with specific steps outlined for school personnel for all plans listed below		
	Internal Threat Plans: ___ Breach of drug/alcohol/weapon free zone ___ Gang violence ___ Violence among students ___ Vandalism ___ Hostages ___ Bomb threat ___ Sexual misconduct of a staff member						

Threats to School - External	No external threat plans are in place	Procedure exists for at least one plan, or plans do not include specific steps	Procedure exists with specific steps outlined for school personnel for two plans listed below	Procedure exists with specific steps outlined for school personnel for four plans listed below	Procedure exists with specific steps outlined for school personnel for all plans listed below		
	External Threat Plans: ___ Individual of campus/grounds ___ Sexual assault ___ Arrest of student/staff member ___ Food or beverage contamination ___ Missing child/kidnapping ___ Parental deployment						
Unexpected Deaths/Injury	No death or injury plans are in place	Procedure exists for at least one plan, or plans do not include specific steps	Procedure exists with specific steps outlined for school personnel for three plans listed below	Procedure exists with specific steps outlined for school personnel for six plans listed below	Procedure exists with specific steps outlined for school personnel for all plans listed below		
	Violent/Unexpected Death/Injury Plans: ___ Death by natural disaster ___ Death by car accident ___ Death by bus accident ___ Death by violent act/intent ___ Suicide ___ Parent or community stakeholder death ___ Death on campus ___ Serious injury						
Comments					**Total Emergency Protocols Score:** 20 Points Possible		

Intervention

Component 3: Physical and Psychological Safety Intervention

Component Items	**0** *Not Present*	**1** *Significant Deficits*	**2** *Deficits*	**3** *Sufficient*	**4** *Best Practice*	**Page #**	**Score**
Building Security	There is no procedure for checking building security after a crisis	There is a documented procedure in place for checking building security, but no one has been identified to complete the task	There is a documented procedure in place for recognized individual(s) for checking building security	There is a documented procedure in place for checking building security	There is a documented procedure in place for recognized individual(s) checking building security and communicating with all staff members		
Psychological First Aid	No staff member has been trained to identify individuals in need and administer psychological first aid	One staff member is trained in identifying individuals in need and administering psychological first aid	Five staff members are trained in identifying individuals in need and administering psychological first aid	Seven staff members are trained in identifying individuals in need and administering psychological first aid	All school personnel are trained in identifying individuals in need and administering psychological first aid		
Caring for the caregivers	There is no mention of caring for caregivers	Caring for the caregiver is mentioned within the plan, but there is no specific plan in place	A specific plan for caring for the caregivers is identified, but it does not include a plan to cover responsibilities	A specific plan for caring for the caregivers is identified and a plan to cover responsibilities is identified	A specific plan for caring for the caregiver is identified, including a plan to cover their responsibilities, psychoeducation, outside resources, etc.		
Comments					**Total Physical and Psychological Safety Intervention Score:** 12 Points Possible		

Postvention

Component 1: Communication

Component Items	0 *Not Present*	1 *Significant Deficits*	2 *Deficits*	3 *Sufficient*	4 *Best Practice*	Page #	Score
Releasing Information	There is no policy for verifying information	There is a person identified to verify facts before releasing them to the public	A policy is in place for verifying and releasing facts, and an individual is tasked with response, but the protocol is brief and does not cover essential components	A comprehensive policy is in place for verifying and releasing facts, but it only applies to administration or the person tasked with response	A policy is in place to verify facts before releasing them to the public for all school personnel, including an identified individual tasked with response to whom all school personnel can refer		
Media	There is no policy for responding to media queries and requests	There is a person identified to respond to media queries and requests	A policy is in place for responding to media queries and requests and an individual is tasked with response, but the protocol is brief and does not cover essential components	A comprehensive policy is in place for responding to media queries and requests, but it only applies to administration or the person tasked with response	A comprehensive policy is in place for responding to media queries and requests for all school personnel, including an identified individual tasked with response to whom all school personnel can refer		
Parents	There is no policy in place for informing parents of new developments	A policy is in place for informing parents of new information, but it may not be the most time efficient method (i.e., sending notes home with students).	A policy is in place for informing parents of new information, but it may not be the most time efficient method (i.e., sending notes home with students). Parents are informed of the procedure	A policy is in place for informing parents of new information within a timely manner (i.e., through an automated calling system, website, etc.)	A policy is in place for informing parents of new information within a timely manner (i.e., through an automated calling system, website, etc.), and parents are informed of this procedure		

Comments	**Total Communication Score:** 12 Points Possible		

Postvention

Component 2: Long- and Short-Term Considerations

Component Items	**0** *Not Present*	**1** *Significant Deficits*	**2** *Deficits*	**3** *Sufficient*	**4** *Best Practice*	**Page #**	**Score**
Student Support	No places have been identified for students to seek supports	Place(s) are identified for students to seek support during school, but they are not regularly monitored	Place(s) are identified for students to seek support during school, but monitoring school personnel are not training in psychological first aid	Place(s) are identified for students to seek support during school. School personnel trained in psychological first aid are monitoring the area(s)	Place(s) are identified for students to seek support before, during, and after school. School personnel trained in psychological first aid are monitoring the area(s)		
Referral List	There is no referral list	Some community resources have been compiled	A comprehensive referral list of community resources and professionals has been compiled	A comprehensive referral list of community resources and professionals is provided to all students, school personnel, and parents	A comprehensive referral list of community resources and professionals is provided to all students, school personnel, and parents in multiple languages		
Triage	There is no system for identifying students and staff who may need additional supports	There is a system for identifying students and staff who may need additional supports	There is a 3-tiered system for identifying students and staff who may need additional supports outlined	There is a 3-tiered system for identifying students and staff who may need additional supports, with progress monitoring, and two of the components below are detailed in the plan	There is a 3-tiered system for identifying students and staff who may need additional supports, with progress monitoring, and all of the components below are detailed in the plan		
	Support typed for students and staff protocols: ___ Reestablish social supports ___ Classroom meetings ___ Psychoeducational groups (for both students and caregivers) ___ Individual crisis interventions						
Memorials/ Anniversaries	There is no policy in place for responding to memorials or anniversaries of events	A policy is in place that specifically does not follow best practice recommendations (i.e., recommends permanent memorials,	There is a policy in place for responding to either memorials or anniversaries of events	There is a policy in place for responding to memorials or anniversaries of events	There is a policy in place for responding to memorials or anniversaries of events with specific duties outlined and assigned to		

		mandates attendance, etc.)			an individual or team		
Comments					**Total Long- and Short-Term Considerations Score:** 16 Points Possible		

Postvention

Component 3: Evaluation

Component Items	**0** *Not Present*	**1** *Significant Deficits*	**2** *Deficits*	**3** *Sufficient*	**4** *Best Practice*	**Page #**	**Score**
Regular Plan Evaluation	The crisis plan has never been evaluated by a district level team	The crisis plan has been evaluated by a district level team including some key stakeholders at least once	The crisis plan has been evaluated by a district level team including first responders, police, administration, teachers, parents, students (if applicable), and other key stakeholders at least once	The crisis plan is evaluated by a district level team including some key stakeholders annually	The crisis plan is evaluated by a district level team including first responders, police, administration, teachers, parents, students (if applicable), and other key stakeholders annually		
Meetings	There are no follow-up meetings after a crisis event	Following a crisis event, the crisis team meets to discuss the effectiveness of response and recovery, but meeting notes are not shared with school personnel	Following a crisis event, the crisis team holds team meetings to discuss the effectiveness of response and recovery process and meeting notes are distributed to all school personnel, but they are not regular or consistent	Following a crisis event, the crisis team holds regular team meetings to discuss the effectiveness of response and recovery process meeting notes are distributed to all school personnel	Following a crisis event, the crisis team holds regular team meetings to discuss the effectiveness of response and recovery process and meeting notes are distributed to all school personnel. Criteria for determining frequency of meetings exists		
Plan Evaluation Following Crisis	The crisis plan is not evaluated or modified as necessary following a crisis	The crisis team does not use data to make modifications after a crisis	The crisis team evaluates the crisis plan after a crisis occurs, but no modifications are made	The crisis team evaluates (via data) and makes modifications to the crisis plan as necessary after a crisis occurs	The crisis team evaluates (via data) and makes modifications to the crisis plan as necessary after a crisis occurs, and the changes are disseminated to all school personnel		
Comments					**Total Evaluation Score:** 12 Points Possible		

School Crisis Plan Evaluation Tool (SCPET)

SUMMARY TABLE

Instructions:

1. Transfer the total score for each component into the accompanying box in Column A.
2. Add scores for all components and place total in the grey shaded box in Column A.
3. Divide Total Points Earned scores in Column A by the Total Points Available in Column B, and multiply by 100
4. Record each of these scores in the "Percentage of Best Practice" column.
5. Based on the "Percentage of Best Practice" score, label the component as a:

Best Practice -	90-100%
Adequate-	65-89%
Sufficient Deficiencies-	0-64%

Core Component	Total Points Earned (A)	Total Points Available (B)	Percentage of Best Practice (A/B x 100)	Best Practice, Adequate, or Sufficient Deficiencies
Logistics		16		
Teaming		16		
Physical and Psychological Safety Prevention		24		
Training		12		
Resource Planning		16		
Total Prevention		***84***		
Emergency Protocols		32		
Incident-Specific Plans		20		
Physical and Psychological Safety Intervention		12		
Total Intervention		***64***		
Communication		12		
Long- and Short-Term Considerations		16		
Evaluation		12		
Total Postvention		***40***		
OVERALL SCORE		**188**		

APPENDIX B

SCALE Final Version

School Crisis Assessment and Logistical Evaluation (SCALE)

Date: _____ **School/District: _____**

Person Completing Assessment: _____

Purpose:

This tool is designed to assist sites with three major goals.

a) Describe the current state of the site's current school crisis plan
b) Identify goals to move the site toward achieving best practice in school crisis prevention and intervention efforts
c) Measure and monitor progress of changes made

Instructions:

1. **Form a Crisis Team.** Identify varied site-based personnel to participate as members of the school crisis team.

2. **Review Tool and Gather Crisis Plan and Any Other Supporting Documents.** Prior to meeting as a team to complete the SCALE, each team member should familiarize him/herself with this tool and the school's crisis plan, along with any other supporting documents highlighting crisis response and/or intervention.

3. **Meet to Rate Crisis Plan.** Schedule approximately 1-2 hours to meet as a team to rate the site's current crisis plan across the three content areas of Prevention, Intervention, and Postvention. A team member identified as the "recorder" may document notes, barriers, concerns, and questions raised by the team in the Comments section provided at the bottom of each page.

4. **Complete the SCALE Rubric Summary.** The summary may be completed at the team meeting after ratings for each component have been selected, or an identified team member may complete this step at a later time. This summary yields scores for each content area and their core components as well as a total crisis plan score. Each score can be used to determine whether the area reflects an adequate level of implementation.

5. **Create Goals to Move Site Toward Best Practice.** The school crisis team should meet again to analyze results, identify areas of strength and weakness, and develop goals to improve these areas.

6. **Evaluation.** Use this plan to measure and monitor progress toward goals. It is recommended that this tool be used at least twice per year.

Prevention

Component 1: Logistics

Component Items	0 *Not Present*	1 *Beginning*	2 *Developing*	3 *Sufficient*	4 *Best Practice*	Page #	Score
1. Mission Statement	No mission statement is in place	Mission statement does not answer the questions the what and how of the crisis plan's purpose and is not disseminated to school personnel annually	Mission statement exists and is disseminated to all school personnel annually, but does not clarify the what/how of the crisis plans purpose	Mission statement clarifying the what and how of the crisis plan's purpose exists but is not disseminated to all school personnel on an annual basis	Mission statement clarifying the what and how of the crisis plan's purpose exists and is disseminated to all school personnel annually		
2. Communication	No protocol for communication exists	No communication protocol is in place, but emergency numbers are accessible	A communication protocol is in place for emergency situations but emergency numbers are not accessible	A communication protocol is in place for emergency situations and emergency numbers are accessible	A communication protocol is in place for emergency situations indicating primary and secondary forms of communication (i.e., intercom system, cell phones, land lines, walkie talkies, etc.) and emergency numbers are accessible		
3. Command Chain/Roles	No documentation of the chain of command	The plan outlines a command chain, but it does not utilize the Incident Command System (ICS)	The plan utilizes the ICS, but not all roles are clearly filled or defined.	At least 7 of the roles below are filled by a minimum of four different individuals, but no backups have been identified	All the roles below are filled by a minimum of four different individuals and backups have been identified		
	The leaders who fulfill positions within the Incident Command System include: ___ Incident Commander ___ Public Information Officer ___ Safety Officer ___ Liaison Officer ___ Mental Health Officer ___ Planning Section Chief ___ Operation Section Chief ___ Logistics Section Chief ___ Finance and Administration Section Chief						

4. Special Needs Considerations	No considerations for individuals with special needs are documented	Plan meets one of the criteria listed below	Plan meets two to three of the criteria listed below	Plan meets four to five of the criteria listed below	There are requirements for responding to the needs of students and staff with special needs, meeting all the criteria listed below		
	Criteria required for addressing students with special needs includes: ___ Medical concerns ___ Transportation for physically disabled students/staff ___ Developmental disabilities ___ Deaf or blind individuals ___ Limited English proficiency ___ Individualized evacuation plans ___ Translated resources						
Comments					**Total Logistics Score:** 16 Points Possible		

Prevention

Component 2: Teaming

Component Items	0 *Not Present*	1 *Beginning*	2 *Developing*	3 *Sufficient*	4 *Best Practice*	Page #	Score
5. Crisis Team Members	No crisis team is in place	The crisis team includes fewer than four members	The crisis team includes at least four members, including admin., teacher, and related service-providers	The crisis team includes at least four members: admin., teachers from a variety of grades/subject areas, and related service-providers	The crisis team includes at least five members: admin., teachers from a variety of grades/subject areas, related-service providers who have been specifically chosen for the team		
6. Crisis Team Meetings	No crisis team meetings occur or schedule is not in the plan	The crisis team meets once per year	The crisis team meets twice per year	The crisis team meets three times per year	The crisis team meets at least once per quarter (four time per year)		
7. Key Stakeholders	No key stakeholders are consulted when developing the crisis plan	One of the individuals below are included in the teaming process and plan development	Two of the individuals below are included in the teaming process and plan development	Three of the individuals listed below are included in the teaming process and plan development	All the individuals below are included in the teaming process and plan development		
	Key stakeholders to consider include: ___ School board members ___ Parents ___ Students ___ First responders						
Comments					**Total Teaming Score:** 12 Points Possible		

Prevention

Component 3: Physical and Psychological Safety Prevention

Component Items	0 *Not Present*	1 *Beginning*	2 *Developing*	3 *Sufficient*	4 *Best Practice*	Page #	Score
8. Natural Surveillance	Natural surveillance is not addressed	One of the natural surveillance options is addressed	Two of the four natural surveillance options are addressed	Three of the four natural surveillance options are addressed	All four areas below are addressed		
	Natural Surveillance includes: ___ Clear line of sight from all classrooms and common areas with an outside wall to the outside of the building ___ Cameras monitoring high traffic areas ___ Proper lighting inside and outside of the school buildings ___ Students have adequate supervision, especially during transition times						
9. Access Control	There are multiple points of access and no visitor protocols, or is not addressed in plan	There are multiple points of access to the inside of a building, but visitor protocols are in place	There is only one access point inside of a building, but visitor protocols are not in place or are not used consistently	There is only one access point inside of a building; visitor control procedures are in place and used consistently	There is only one access point inside of a building through double entryway doors; visitor control procedures are in place; outside doors lock automatically		
10. Review of Physical Structures	Building safety is not reviewed unless a problem arises, or not addressed in plan	Building safety is reviewed, but without a set schedule	Building safety is reviewed every two years	Building safety is reviewed once per year	Building safety is reviewed twice per year (i.e., checking doors, reviewing procedures, etc.)		
11. Positive Behavior Supports	There are no school-wide behaviors expectations nor a discipline code	No school-wide behavior expectations are in place, but a clear discipline code is in place	There are school-wide behavior expectations and a clear discipline code, but without protocols for reinforcement or consequences	There are school-wide behavior expectations and a clear discipline code with consistent consequences for problem behavior	There are school-wide behavior expectations and a clear discipline code with consistent reinforcement for engaging in appropriate behaviors and consistent consequences for problem behavior		
12. Social Emotional Learning	SEL program is not identified	SEL program is not identified, but supports are offered to some students	SEL program is identified and supports offered to some students	SEL program is identified and is in place for students identified through a referral system	SEL program is identified and is universally in place		
13. Reporting System	There is no reporting system in place	A documented reporting system is in place, but there is no protocol	A documented reporting system that is regularly monitored is in place, but	Some school personnel are trained to maintain a high level of awareness for	All school personnel (i.e., teachers, administrators, cafeteria staff, etc.) are trained		

		for monitoring referrals	school staff are not specifically trained	suspicious or dangerous activities and a documented reporting system that is regularly monitored is in place	to maintain a high level of awareness for suspicious or dangerous activities and a documented reporting system that is regularly monitored is in place		
Comments					**Total Physical and Psychological Safety Prevention Score:** 24 Points Possible		

Prevention

Component 4: Training

Component Items	0 *Not Present*	1 *Beginning*	2 *Developing*	3 *Sufficient*	4 *Best Practice*	Page #	Score
14. Dissemination and Training	The plan is not disseminated to school staff	The plan is disseminated to most staff members, but not annually	There is a documented procedure for the dissemination of the plan to some, but not all, staff members annually	There is a documented procedure for the dissemination of the plan to all school staff annually, but there is no procedure dissemination for building substitutes, aids, volunteers	There is a documented procedure for the dissemination of the plan to all school staff (i.e., teachers, administrators, custodians, etc.) annually and when changes are made. There is also a protocol for disseminating crisis procedures to all pertinent individuals in the building (i.e., substitutes, volunteers, etc.)		
15. First Aid Training	No staff member has first aid or CPR training	10% of staff members are trained in first aid and CPR	40% of staff members are trained in first aid and CPR	60% of staff members are trained in first aid and CPR	All school personnel are trained in first aid and CPR		
16. Regular Drills and Training Sessions	Practice and training sessions do not occur	Practice and training sessions are scheduled at least yearly	Regular and ongoing practice and training sessions are schedules and occur at least once per semester, but do not occur at all times of the school day	Regular and ongoing practice and training sessions are scheduled and occur at least once per semester. Drills are practices at all times during the school day (i.e., when students are at recess, specials, lunchroom, etc.) Training does not go beyond drills	Regular and ongoing practice and training sessions are scheduled and occur at least one per 9 weeks. Drills are practices at all times during the school day (i.e., when students are at recess, specials, lunchroom, etc.), and training sessions include drills, round tables, and full scale when applicable		

Comments	**Total Training Score:** 12 Points Possible		

Prevention

Component 5: Resource Planning

Component Items	0 *Not Present*	1 *Beginning*	2 *Developing*	3 *Sufficient*	4 *Best Practice*	Page #	Score
17. Resources	There is not a bank of readings and/or relevant information regarding crisis situations	Readings and relevant information regarding crisis situations is compiled and accessible to one school staff member	Readings and relevant information regarding crisis situations is compiled and accessible to some school personnel	Readings and relevant information regarding crisis situations is compiled and easily accessible by all school personnel	Readings and relevant information regarding crisis situations is compiled and easily accessible by all school personnel and relevant stakeholders (i.e., parents, school board, etc.)		
18. Template Letters	The plan does not include sample letters or letter templates	The plan includes letter samples for at least one crisis situation	The plan includes letter samples for at varying crisis situations	The plan includes letter templates to parents for varying crisis situations that can be easily adapted for use	The plan includes letter templates to parents and community members for varying crisis situations (including extreme weather, student suicide/attempt, teacher death, etc.) that can be easily adapted for use		
	No building level cart exists.	There is at least one building level cart that contains 4 of the items listed below.	There is at least one building level cart that is easily accessible. The cart contains 7 of the items listed below.	There is at least one building level cart that is easily accessible and the cart contains 12 of the items listed below.	There is at least one building level cart that is easily accessible and the cart contains 14 of the items listed below.		
19. Crisis "Go-Kits"	The administrative crisis box/cart should include the following: ___ Crisis plan copy ___ Phones and radios necessary for communication ___ Contact information for all students, parents, guardians, and staff ___ List of CPR/first aide trained staff responders ___ Emergency phone numbers ___ Flashlights and batteries ___ Student health records ___ Class rosters ___ Master keys to the school building, including copies for responders ___ Bottled water ___ Building maps ___ Architectural blue prints ___ Utility and gas line maps ___ Aerial map of school and surrounding community ___ First aid supplies for at least 20 people						

20. Classroom or Grade Level "Go-Kits"	There are no classroom go-bags prepared.	There is at least one go-bag per grade that contains at least 2 of the items listed below.	Each classroom has a go-bag that is easily accessible and contains 4 of the items listed below.	Each classroom has a go-bag that is easily accessible and contains 6 of the items listed below.	Each classroom has a go-bag that is easily accessible and contains 7 of the items listed below.		
	Each classroom go-bag should contain the following: ___ Class roster ___ Photos of each student ___ Emergency contact information ___ Student release information ___ First aid supplies for at least 10 people ___ At least two days' worth of student medications ___ Snacks for students ___ Bottled water						
Comments					**Total Resource Planning Score:** 16 Points Possible		

Intervention

Component 1: Emergency Protocols

Component Items	**0** *Not Present*	**1** *Beginning*	**2** *Developing*	**3** *Sufficient*	**4** *Best Practice*	**Page #**	**Score**
21. Crises off-campus	The plan does not address off-campus crises	Plan specifies how the crisis team will be enacted, but does not outline any responses	Plan specifies how crisis team will be enacted and outlines some protocols to be taken before school resumes, but they are incomplete	Plan specifies how the crisis team will be enacted and what steps need to be taken before school resumes to best meet the needs of students (i.e., staff meetings, preparing triage, etc.)	Plan specifies how the crisis team will be enacted and what steps need to be taken before school resumes to best meet the needs of students (i.e., staff meetings, preparing triage, etc.). Additionally, there is a plan in place for addressing crises occurring during school-holidays/breaks		
22. Reunification	There is no mention of reunification in the crisis plan.	There is an undocumented procedure for reunifying students and caregivers noted in the plan.	There are documented procedures for reunifying students and caregivers on campus.	There are documented procedures for reunifying students to caregivers, both on and off campus.	There are documented procedures for reunifying students to caregivers, both on and off campus, with sign-out sheet for all teachers.		
Specific Protocols (23-28)	Procedure is not in place	Procedure exists but steps are not specific	Procedure exists with specific steps outlined for school personnel	Procedure exists with specific steps outlined for school personnel and plans for addressing students who are in the different areas of the building	Procedure exists with specific steps outlined for school personnel and plans for addressing students who are in different areas of the building (restrooms, specials, lunchroom, etc.). Plans also address how the school personnel will know it is time to end the procedure		
23. Evacuation from Building							
24. Evacuation to Secondary Site							
25. Reverse Evacuation							
26. Shelter in Place							
27. Secured Perimeter							

28. Lockdown					*Procedure contains water and food plan that can sustain the entire population for up to three days		
Comments					**Total Emergency Protocols Score:** 32 Points Possible		

Intervention

Component 2: Incident-Specific Plans

Component Items	0 *Not Present*	1 *Beginning*	2 *Developing*	3 *Sufficient*	4 *Best Practice*	Page #	Score
29. Natural Disaster	No natural disaster plans are in place	Procedure exists, but does not include specific steps	Procedure exists with specific steps outlined for school personnel for at least one plan listed below	Procedure exists with specific steps outlined for school personnel for two plans listed below	Procedure exists with specific steps outlined for school personnel for all plans listed below		
	Natural Disaster Plans: ___ Fire ___ Severe weather: _____ ___ Severe weather: _____						
30. Manmade Disaster	No manmade disaster plans are in place	Procedure exists for at least one plan, but does not include specific steps	Procedure exists with specific steps outlined for school personnel for one plan	Procedure exists with specific steps outlined for school personnel for at least two plans	Procedure exists with specific steps outlined for school personnel for three or more plans		
	Example Manmade Disaster Plans: ___ Biological agent incident ___ Chemical/hazardous materials ___ Explosion						
31. Threats to the School - Internal	No internal threat plans are in place	Procedure exists for at least one plan, or plans do not include specific steps	Procedure exists with specific steps outlined for school personnel for three plans	Procedure exists with specific steps outlined for school personnel for five plans	Procedure exists with specific steps outlined for school personnel for six or more plans		
	Example Internal Threat Plans: ___ Breach of drug/alcohol/weapon free zone ___ Gang violence ___ Violence among students ___ Vandalism ___ Hostages ___ Bomb threat ___ Sexual misconduct of a staff member						
32. Threats to School - External	No external threat plans are in place	Procedure exists for at least one plan, or plans do not include specific steps	Procedure exists with specific steps outlined for school personnel for two plans	Procedure exists with specific steps outlined for school personnel for four plans	Procedure exists with specific steps outlined for school personnel for five or more plans		
	Example External Threat Plans: ___ Individual on campus/grounds ___ Sexual assault ___ Arrest of student/staff member ___ Food or beverage contamination ___ Missing child/kidnapping ___ Parental deployment						
33. Unexpected Deaths/Injury	No death or injury plans are in place	Procedure exists for at least one plan, or plans do not include specific steps	Procedure exists with specific steps outlined for school personnel for three plans	Procedure exists with specific steps outlined for school personnel for six	Procedure exists with specific steps outlined for school personnel for seven or more plans		

	Example Violent/Unexpected Death/Injury Plans: ___ Death by natural disaster ___ Death by car accident ___ Death by bus accident ___ Death by violent act/intent ___ Suicide ___ Parent or community stakeholder death ___ Death on campus ___ Serious injury		
Comments		**Total Emergency Protocols Score:** 20 Points Possible	

Intervention

Component 3: Physical and Psychological Safety Intervention

Component Items	**0** *Not Present*	**1** *Beginning*	**2** *Developing*	**3** *Sufficient*	**4** *Best Practice*	**Page #**	**Score**
34. Building Security	There is no procedure for checking building security after a crisis	There is a documented procedure in place for checking building security, but no one has been identified to complete the task	There is a documented procedure in place for checking building security	There is a documented procedure in place for recognized individual(s) for checking building security	There is a documented procedure in place for recognized individual(s) to check building security and communicate with all staff members		
35. Psychological First Aid	No staff member has been trained to identify individuals in need and administer psychological first aid	10% of staff members are trained in identifying individuals in need and administering psychological first aid	40% of staff members are trained in identifying individuals in need and administering psychological first aid	60% of staff members are trained in identifying individuals in need and administering psychological first aid	All school personnel are trained in identifying individuals in need and administering psychological first aid		
36. Caring for the Caregivers	There is no mention of caring for caregivers	Caring for the caregiver is mentioned within the plan, but there is no specific plan in place	A specific plan for caring for the caregivers is identified, but it does not include a plan to cover or delineate other responsibilities	A specific plan for caring for the caregivers is identified and a plan to cover or delineate other responsibilities is identified	A specific plan for caring for the caregiver is identified, including a plan to cover or delineate their other responsibilities. Additional supports (psychoeducation, outside resources, etc.) are available.		
Comments					**Total Physical and Psychological Safety Intervention Score:** 12 Points Possible		

Postvention

Component 1: Communication

Component Items	0 *Not Present*	1 *Beginning*	2 *Developing*	3 *Sufficient*	4 *Best Practice*	Page #	Score
37. Verification of Releasing Information	There is no policy for verifying information or for releasing information	There is a policy in place for releasing information but no policy for verifying information	A policy is in place for verifying information but no policy exists for releasing information	A policy is in place for verifying and releasing facts, but it is unclear or not comprehensive	A comprehensive policy is in place for verifying and releasing facts		
38. Media	There is no policy for responding to media queries and requests	There is a policy for responding to media queries and requests, but it is not comprehens ive in nature	A policy is in place for responding to media queries and requests and but it only applies to administration	A comprehensive policy is in place for responding to media queries and requests for all school personnel	A comprehensive policy is in place for all school personnel responding to media queries and requests and specific person(s) assigned to speak on behalf of the school/district to media		
39. Parents	There is no policy in place for informing parents of new developme nts	A policy is in place for informing parents of new information, but it may not be the most time efficient method (i.e., sending notes home with students).	A policy is in place for informing parents of new information, but it may not be the most time efficient method (i.e., sending notes home with students). Parents are informed of the procedure	A policy is in place for informing parents of new information within a timely manner (i.e., through an automated calling system, website, etc.)	A policy is in place for informing parents of new information within a timely manner (i.e., through an automated calling system, website, etc.), and parents are informed of this procedure		
Comments					**Total Communicati on Score:** 12 Points Possible		

Postvention

Component 2: Long- and Short-Term Considerations

Component Items	0 *Not Present*	1 *Beginning*	2 *Developing*	3 *Sufficient*	4 *Best Practice*	Page #	Score
40. Student Support	No personnel have been identified for students to seek support	Personnel are identified for students to seek support, but there is no policy on how students can access	Personnel are identified for students to seek support during school and policy in place for accessibility during school	Personnel are identified for students to seek support during school, a policy is in place for accessibility during school, and personnel are trained in psychological first aid	Personnel are identified for students to seek support and a policy is in place for accessibility before, during, and after school. Personnel are trained in psychological first aid		
41. Referral List	There is no referral list	Some community resources have been compiled	A comprehensive referral list of community resources and professionals has been compiled	A comprehensive referral list of community resources and professionals is provided to all students, school personnel, and parents	A comprehensive referral list of community resources and professionals is provided to all students, school personnel, and parents in multiple languages		
42. Triage & Data Monitoring	There is no system for identifying students and staff who may need additional supports	There is a system for identifying students and staff who may need additional supports	There is a 3-tiered system for identifying students and staff who may need additional supports outlined	There is a 3-tiered system for identifying students and staff who may need additional supports, with progress monitoring, and two of the components below are detailed in the plan	There is a 3-tiered system for identifying students and staff who may need additional supports, with progress monitoring, and all of the components below are detailed in the plan		
	Support typed for students and staff protocols: ___ Reestablish social supports ___ Classroom meetings ___ Psychoeducational groups (for both students and caregivers) ___ Individual crisis interventions						
43. Memorials/ Anniversaries	There is no policy in place for responding to memorials or anniversaries of events	There are vague guidelines, but no policy in place for responding to memorials or anniversaries of events	A policy is in place that specifically does not follow best practice recommendations (i.e., recommends permanent memorials, mandates attendance, etc.)	There is a policy in place for responding to memorials or anniversaries of events that follows best practice but does not specifically address suicide	There is a policy in place for responding to memorials or anniversaries of events that follows best practice and addresses suicide		

Comments	**Total Long-and Short-Term Considerations Score:** 16 Points Possible		

Postvention

Component 3: Evaluation

Component Items	0 *Not Present*	1 *Beginning*	2 *Developing*	3 *Sufficient*	4 *Best Practice*	Page #	Score
44. Regular Plan Evaluation	The crisis plan has never been evaluated	The crisis plan has been evaluated at least once	The crisis plan has been evaluated at least once, and input has been obtained from first responders, police, administration, teachers, parents, students (if applicable), and other specific stakeholders	The crisis plan is evaluated and reviewed by at least some key stakeholders when changes are made	The crisis plan is evaluated and reviewed annually by at least some key stakeholders		
45. Meetings	There are no follow-up meetings after a crisis event	Following a crisis event, the crisis team meets to discuss the effectiveness of response and recovery, but meeting notes are not shared with school personnel	Following a crisis event, the crisis team holds team meetings to discuss the effectiveness of response and recovery process and feedback is shared with all school personnel, but they are not regular or consistent	Following a crisis event, the crisis team holds regular team meetings to discuss the effectiveness of response and recovery process, feedback provided to all school personnel	Following a crisis event, the crisis team holds regular team meetings to discuss the effectiveness of response and recovery process. Feedback is provided to all school personnel and there is a procedure to also obtain feedback from school personnel		
46. Plan Evaluation Following Crisis	The crisis plan is not evaluated or modified as necessary following a crisis	The crisis team does not use data (e.g., uses perceptions, opinions, etc.) to make modifications after a crisis	The crisis team evaluates the crisis plan after a crisis occurs using data sources, but no modifications are made	The crisis team evaluates (via data) and makes modifications to the crisis plan as necessary after a crisis occurs	The crisis team evaluates (via data) and makes modifications to the crisis plan as necessary after a crisis occurs, and the changes are disseminated to all school personnel		
Comments					**Total Evaluation Score:** 12 Points Possible		

School Crisis Assessment and Logistical Evaluation (SCALE)

SUMMARY TABLE

Instructions:

1. Transfer the total score for each component into the accompanying box in Column A.
2. Add scores for all components and place total in the grey shaded box in Column A.
3. Divide Total Points Earned scores in Column A by the Total Points Available in Column B, and multiply by 100
4. Record each of these scores in the "Percentage of Best Practice" column.
5. Based on the "Percentage of Best Practice" score, label the component as:
   Best Practice - 85-100%
   Adequate - 60-84%
   Development Needed - 0-59%

Core Component	Total Points Earned (A)	Total Points Available (B)	Percentage of Best Practice (A/B x 100)	Best Practice, Adequate, or Developing
Logistics		16		
Teaming		12		
Physical and Psychological Safety Prevention		24		
Training		12		
Resource Planning		16		
Total Prevention		***84***		
Emergency Protocols		32		
Incident-Specific Plans		20		
Physical and Psychological Safety Intervention		12		
Total Intervention		***64***		
Communication		12		
Long- and Short-Term Considerations		16		
Evaluation		12		
Total Postvention		***40***		
OVERALL SCORE		**188**		

APPENDIX C

IRB Approval Letter

Oklahoma State University Institutional Review Board

Date:	09/27/2018
Application Number:	ED-18-136
Proposal Title:	Assessing school crisis plans: Development of the School Crisis Assessment and Logistical Evaluation
Principal Investigator:	Hannah West
Co-Investigator(s):	
Faculty Adviser:	Terry Stinnett
Project Coordinator:	
Research Assistant(s):	
Processed as:	Not Human Subjects Research

Status Recommended by Reviewer(s): Closed

Based on the information provided in this application, the OSU-Stillwater IRB has determined that your project does not qualify as human subject research as defined in 45 CFR 46.102 (d) and (f) and is not subject to oversight by the OSU IRB. Should you have any questions or concerns, please do not hesitate to contact the IRB office at 405-744-3377 or irb@okstate.edu.

Sincerely,

Hugh Crethar, Chair Institutional Review Board

APPENDIX D

Recruitment Email

Dear _____,

I am a school psychology doctoral student from Oklahoma State University in Stillwater, OK. I am conducting my doctoral dissertation research on school crisis plans. The title of my study is "Assessing School Crisis Plans: Development of the School Crisis Assessment and Logistical Evaluation."

I am asking for you to send a copy of your school's crisis plan for evaluation. The school crisis plan will be evaluated using a recently developed rubric, which helps to determine if essential components are included in plans and if they meet best practice standards. You can send the plan to the primary investigator's email, which is provided below. Your time is greatly appreciated.

We do not anticipate any risk in your participation. No school names will be used in the data software or the write up of this research. You may also leave out phone trees or other sheets that have direct identifying information of faculty and students if this is a concern. If you choose to do so, please document that in your response. The plans will be kept confidential; only members of a research team will see these documents and any printed hard copies of plans will be shredded upon study completion.

Your participation in this study is completely voluntary. In addition, you may withdraw at any time from this research study (even if you have already sent the plan) by contacting me, or my faculty advisor. If requested, I will be send back the completed rubric used to evaluate the crisis plan for your school.

By sending your school's crisis plan, you consent to participate in this study. If you have any questions or concerns about this study, feel free to contact me. Please keep this letter in case you need to reference my contact information.

Thank You,

Primary investigator:

Hannah West, M.S.
School Psychology Doctoral Program
Oklahoma State University
hannah.west@okstate.edu

Faculty Advisor:
Terry Stinnett, PhD

APPENDIX E

Correlation Matrix

Item	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1.00												
2	.228	1.00											
3	.256	.279	1.00										
4	.338	.413	.580	1.00									
5	.235	.227	.456	.419	1.00								
6	.166	.280	.475	.463	.411	1.00							
7	.282	.415	.434	.323	.285	.370	1.00						
8	.143	.238	.507	.420	.308	.457	.231	1.00					
9	.026	.431	.349	.339	.074	.416	.260	.641	1.00				
10	.169	.223	.527	.396	.216	.579	.227	.864	.676	1.00			
11	.237	.198	.522	.482	.281	.479	.231	.810	.531	.765	1.00		
12	.299	.276	.434	.474	.353	.322	.298	.663	.476	.573	.771	1.00	
13	.274	.139	.393	.426	.502	.536	.324	.499	.348	.412	.616	.552	1.00
14	.420	.631	.517	.573	.334	.561	.489	.453	.526	.528	.438	.396	.312
15	.203	.539	.540	.494	.192	.349	.331	.309	.192	.362	.293	.264	.160
16	.237	.670	.393	.459	.139	.515	.376	.373	.572	.401	.334	.333	.248
17	.216	.009	.192	.173	.342	.275	.133	.071	-.076	-.007	.131	.186	.332
18	.018	-.120	-.028	-.078	.209	.252	-.015	.148	-.055	.042	.216	.156	.311
19	.242	.474	.486	.474	.285	.520	.260	.589	.462	.592	.599	.491	.421
20	.322	.363	.528	.584	.334	.468	.300	.713	.450	.583	.713	.675	.600
21	.131	.262	.205	.020	.165	-.043	.187	.265	.102	.178	.241	.500	.156
22	.192	.409	.473	.505	.393	.359	.286	.279	.192	.262	.311	.268	.334
23	-.054	.664	.472	.420	.283	.346	.256	.296	.339	.222	.237	.262	.250
24	.071	.643	.340	.284	.313	.285	.452	.223	.241	.115	.164	.255	.280
25	.173	.361	.595	.489	.344	.605	.383	.516	.406	.503	.658	.653	.610
26	.004	.633	.391	.393	.235	.276	.283	.340	.471	.249	.255	.257	.273
27	.018	.430	.220	.229	.059	.452	.161	.391	.479	.369	.423	.419	.414
28	.075	.640	.499	.496	.275	.317	.228	.354	.371	.332	.323	.287	.219
29	-.057	.500	.396	.438	.179	.311	.031	.359	.360	.417	.342	.202	.149
30	.065	.740	.295	.260	.044	.256	.265	.224	.328	.228	.065	.078	.115
31	.102	.618	.419	.413	.183	.523	.296	.393	.422	.452	.327	.227	.199
32	.015	.591	.339	.287	.118	.405	.227	.261	.325	.279	.133	.060	.128
33	.243	.305	.125	.228	.210	.170	-.011	.477	.495	.425	.388	.566	.393
34	.070	.559	.455	.513	.283	.397	.387	.529	.482	.379	.362	.445	.403
35	.244	-.086	.204	.159	.272	.303	.051	.147	.069	.110	.192	.263	.476
36	.412	.100	.295	.209	.143	.133	.189	.329	.143	.237	.477	.473	.294
37	.117	.242	.160	.280	.279	.264	.149	.177	.114	.134	.223	.342	.383
38	.313	.416	.271	.258	.191	.208	.286	.167	.071	.183	.226	.209	.120
39	.362	.482	.503	.395	.236	.331	.464	.138	.127	.246	.213	.127	.241
40	.299	.246	.354	.278	.431	.351	.550	.289	.157	.207	.391	.510	.581
41	.386	.082	.327	.344	.282	.363	.169	.291	.095	.185	.411	.409	.564
42	.271	.041	.250	.143	.389	.271	.074	.379	.160	.273	.517	.549	.615
43	.233	-.074	.018	.088	.055	.076	-.072	.417	.130	.284	.416	.450	.349
44	.315	.542	.460	.625	.492	.655	.512	.320	.309	.397	.413	.513	.554
45	.325	.012	.317	.145	.303	.451	.070	.329	.232	.413	.339	.296	.465
46	.239	.322	.460	.376	.435	.438	.147	.313	.248	.396	.357	.382	.407

Item	14	15	16	17	18	19	20	21	22	23	24	25	26
14	1.00												
15	.503	1.00											
16	.622	.592	1.00										
17	-.049	.068	-.004	1.00									
18	-.246	-.193	-.143	.712	1.00								
19	.515	.639	.621	.204	.074	1.00							
20	.521	.417	.557	.290	.210	.747	1.00						
21	.196	.319	.206	.040	.014	.237	.272	1.00					
22	.445	.402	.377	-.021	-.020	.452	.528	.131	1.00				
23	.402	.553	.553	.091	-.074	.511	.495	.187	.603	1.00			
24	.453	.387	.359	.169	-.081	.412	.383	.337	.509	.769	1.00		
25	.507	.544	.496	.216	.124	.532	.636	.428	.387	.491	.413	1.00	
26	.415	.569	.572	.133	-.058	.595	.489	.245	.540	.778	.629	.487	1.00
27	.186	.343	.487	.158	.294	.456	.501	.139	.363	.482	.278	.530	.510
28	.504	.577	.640	-.021	-.178	.552	.535	.297	.626	.836	.602	.435	.727
29	.422	.547	.554	-.139	-.266	.533	.394	.186	.490	.669	.461	.379	.549
30	.427	.587	.679	-.055	-.233	.457	.277	.303	.405	.684	.635	.273	.635
31	.532	.618	.683	-.095	-.206	.479	.323	.169	.377	.628	.525	.429	.480
32	.394	.631	.616	-.057	-.164	.455	.251	.108	.337	.646	.501	.319	.571
33	.208	.094	.307	.058	.000	.223	.351	.207	-.011	.240	.196	.312	.134
34	.544	.589	.518	.193	.071	.536	.542	.373	.385	.540	.505	.603	.667
35	.088	.128	.046	.368	.301	.235	.266	.091	.167	.034	.144	.228	.061
36	.084	.198	.122	.322	.269	.282	.351	.247	.211	.064	.166	.387	.064
37	.066	.018	.230	.210	.300	.083	.223	.124	.159	.262	.155	.238	.209
38	.224	.282	.308	.152	.231	.253	.281	.224	.438	.433	.393	.309	.339
39	.385	.455	.456	.225	.114	.380	.381	.196	.455	.363	.357	.391	.438
40	.227	.262	.117	.499	.441	.232	.351	.271	.116	.228	.316	.504	.229
41	.205	.277	.144	.696	.510	.354	.479	.196	.125	.133	.195	.506	.219
42	.113	.095	.041	.325	.461	.293	.419	.357	.087	.101	.150	.584	.071
43	.021	.079	.063	.356	.332	.322	.388	.24	-.096	-.115	-.005	.219	-.065
44	.579	.431	.560	.321	.127	.471	.539	.211	.473	.577	.473	.622	.429
45	.182	.158	.243	.217	.233	.278	.286	.094	.154	.142	.029	.425	.101
46	.458	.318	.372	.229	.080	.283	.341	.262	.338	.358	.297	.590	.339

Item	27	28	29	30	31	32	33	34	35	36	37	38	39
27	1.00												
28	.379	1.00											
29	.232	.708	1.00										
30	.371	.683	.671	1.00									
31	.410	.664	.755	.793	1.00								
32	.452	.588	.685	.834	.888	1.00							
33	.383	.167	.323	.288	.406	.330	1.00						
34	.422	.505	.406	.510	.503	.513	.265	1.00					
35	.194	-.074	-.157	-.008	-.041	.004	.060	.236	1.00				
36	.353	.041	-.040	-.021	.063	-.046	.261	.149	.267	1.00			
37	.183	.244	.089	.187	.171	.120	.242	.362	.340	-.058	1.00		
38	.171	.408	.259	.304	.276	.246	.086	.266	-.072	.241	.347	1.00	
39	.217	.421	.209	.363	.281	.263	-.111	.337	.238	.183	.345	.624	1.00
40	.313	.046	-.160	.020	.035	.047	.182	.368	.450	.441	.389	.302	.355
41	.283	.065	-.084	.009	-.017	.040	.159	.385	.506	.432	.185	.260	.293
42	.263	-.039	-.096	-.094	-.021	-.069	.337	.233	.429	.384	.264	.245	.146
43	.157	-.169	-.034	-.064	-.014	-.111	.412	.115	.223	.390	.014	.047	-.018
44	.377	.606	.455	.435	.570	.434	.336	.507	.093	.168	.382	.418	.430
45	.372	.143	.146	.133	.262	.187	.337	.125	.150	.289	-.042	.157	.073
46	.189	.401	.419	.320	.455	.293	.282	.420	.045	.212	.218	.383	.352

Item	40	41	42	43	44	45	46
40	1.00						
41	.551	1.00					
42	.588	.610	1.00				
43	.254	.401	.449	1.00			
44	.437	.365	.253	.009	1.00		
45	.208	.428	.447	.244	.471	1.00	
46	.261	.320	.396	.195	.634	.583	1.00

VITA

Hannah M. West

Candidate for the Degree of

Doctor of Philosophy

Dissertation: ASSESSING SCHOOL CRISIS PLANS: DEVELOPMENT OF THE SCHOOL CRISIS ASSESSMENT AND LOGISTICAL EVALUATION

Major Field: School Psychology

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in School Psychology at Oklahoma State University, Stillwater, Oklahoma in July, 2020.

Completed the requirements for the Master of Science in Educational Psychology with specialization in Applied Psychometrics at Oklahoma State University, Stillwater, Oklahoma in 2016.

Completed the requirements for the Master of Science in Clinical Psychology at Missouri State University, Springfield, Missouri in 2015.

Completed the requirements for the Bachelor of Arts in Psychology at Henderson State University, Arkadelphia, Arkansas in 2013.

Experience:

- APA Predoctoral Internship at Munroe-Meyer Institute, Behavioral Pediatrics and Integrated Care Track
- PREPaRE Workshops 1 & 2 Trainer of Trainers
- Completed 2,500+ Practicum Hours in School, Clinical, and Outpatient Settings through Oklahoma State University and Missouri State University
- Graduate Teaching Assistant at Oklahoma State University in the College of Education, Fall 2015 and Spring 2017