

ABSTRACT

Title of dissertation: COMPREHENSIVE CRISIS TRAINING FOR SCHOOL-BASED PROFESSIONALS: THE DEVELOPMENT, IMPLEMENTATION, AND EVALUATION OF A CRISIS PREPARATION AND RESPONSE CURRICULUM

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Schools and school systems are increasingly expected and legally obligated to be prepared for and respond to crises impacting school communities. However, there have been few systematic efforts to develop research-based training programs designed to increase the crisis preparation and response abilities of school-based professionals. The purpose of this study was to develop, implement, and evaluate a comprehensive crisis preparation and response curriculum for school system staff.

The curriculum in this study was developed following a thorough review of the school-based crisis intervention literature and the research on key principles of adult learning. Members of the district's crisis response leadership team and other school-based staff helped pilot and fine-tune aspects of the curriculum prior to implementation.

The curriculum was subsequently implemented with twelve school-based professionals who enrolled in the 15-hour course.

The evaluation of the curriculum focused on identifying changes in the participants' learning and behaviors throughout the course, documenting the effectiveness of crisis simulations as a training tool, and looking for themes and patterns across the various data collection tools that could assist in improving the scope and sequence of the curriculum for future trainings. The findings for each of these evaluation goals were very positive. The course participants' ability to effectively apply crisis preparation and response skills during extended simulations improved substantially throughout the course based on group performances on a crisis simulation rubric. The participants also consistently reported that they felt more comfortable and confident applying these skills, with many planning to take leadership roles on their school-based crisis teams. The crisis simulation activities were found to be excellent tools for learning and practicing crisis intervention skills in a safe setting, and the course participants agreed that these simulation activities were realistic, valuable teaching techniques. The themes and patterns related to the scope and sequence of the curriculum were extremely positive, with few changes suggested. The participants reported that the content and teaching strategies utilized were effective and fostered learning. Implications for future research and practice were discussed.

COMPREHENSIVE CRISIS TRAINING FOR SCHOOL-BASED PROFESSIONALS:
THE DEVELOPMENT, IMPLEMENTATION, AND EVALUATION OF A CRISIS
PREPARATION AND RESPONSE CURRICULUM

by

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Finally, I would like to acknowledge the family members who helped me believe that I could finish this project, even when you might not have believed it yourselves. To my extended soccer family, I have time for a few more practices now. Debbi, thanks for your patience, feedback, and most importantly, your proofreading skills. Also, thank you to Casey, Mom, Dad, Jen, Kati, Matthew, and Beth for your encouragement and support. You all have my deepest appreciation for all of the help you each have given me as I worked to accomplish this goal. And no Casey, you don't have to call me doctor now.

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CHAPTER I

INTRODUCTION

Over the last decade, there has been an increasing focus throughout the country on school crisis intervention and prevention. While there have been a number of high profile crises related to school violence, there have been many more crises in our nation's schools that did not receive as intense a level of media scrutiny but still had a significant impact on students, staff, and communities. In addition to the highly publicized incidences of school violence, other school crises have included the sudden, unexpected loss of a child or staff member due to injury or violence, serious injuries at school or in the community, anticipated deaths due to long-term illness, natural and industrial disasters, and acts of war and terrorism (Brock, 2002a; Brock & Jimerson, 2004a). Jimerson and Huff (2002) noted "a sudden, unexpected death on campus is estimated to occur nearly every week in the United States" (p. 449). Likewise, a recent survey of almost two hundred practicing school psychologists found that the majority had responded to more than one significant school crisis during their careers and were active members of their schools' crisis response teams (Nickerson & Zhe, 2004). The frequency with which these crises occur is alarming, leading many to believe that it is not a matter of *if* a crisis will occur in a school or school district but instead a question of *when* a crisis will occur (e.g., Jimerson & Huff, 2002).

Schools and school systems have always had the legal and moral responsibility to provide for the safety and security of their students (Jacob & Feinberg, 2002). In addition to this general obligation to provide a safe learning environment, school systems are beginning to be held accountable for crisis prevention, preparation, and response.

More and more, schools are being held legally responsible for being unprepared when a crisis occurs or for not taking proactive steps to prevent a crisis from occurring (Eaves, 2001; Feinberg & Jacob, 2002; Poland, 1994).

In many areas of the country, state and district legislative bodies are requiring that school systems develop comprehensive crisis response and/or school emergency plans (Brock, Sandoval, & Lewis, 2001; Johnson, 2000b; Pagliocca & Nickerson, 2001). In some of these cases, the legislative bodies are requiring that specific steps and strategies be put in place, such as safe school plans, specific curricula, and crisis management procedures, even though the effectiveness of many of these strategies may not be thoroughly researched (Pagliocca & Nickerson, 2001). In other cases, the local school systems are being given the responsibility of developing their own steps and strategies for crisis preparation and response following a general legislative mandate (Pagliocca & Nickerson, 2001). As a result of these increasing expectations regarding school crisis readiness and the ensuing accountability issues, school personnel must be prepared for school crises and should be able to document the steps they plan to take in the event of a crisis and the actual steps they used during a crisis response (Feinberg & Jacob, 2002).

The Nature of School Crisis

The push to improve school systems' crisis readiness and responsiveness is due to the significant impact crises can have on school communities. Crises, by their nature, are upsetting, chaotic, and disruptive, creating disequilibrium for affected individuals and communities. Individuals in crisis may feel overwhelmed or out of control, have difficulties coping, and react negatively to the sudden, unexpected loss (Brock, 2002a; Brock & Jimerson, 2004a). Elder (2002) found that children and adolescents were

particularly at risk, as they often did not have the range of life experiences, coping skills, or access to resources that would allow them to face issues of grief and loss independently. Numerous authors have noted that students impacted by crises often display a variety of changes in their behavioral and emotional functioning, including disrupted sleeping and eating habits, nightmares, poor concentration at school, increased academic problems and absenteeism, withdrawal from enjoyable activities, more frequent physical complaints, such as headaches or stomachaches, and increased feelings of anger, sadness, fear, vulnerability, and anxiety (Collison, Bowden, Patterson, Snyder, Sandall, & Wellman, 1987; Hazell, 1991; Klingman, 1987; Podell, 1989; Poland, 1998; Toubiana, Milgram, Strich, & Edelstein, 1988; Winter, 2000).

Poland (1994) reported that students attending schools where appropriate supports were not provided following a crisis suffered significant, long-term negative effects. These negative effects often included increased behavioral difficulties, declines in academic performance, and absenteeism (Brock & Jimerson, 2004a; Pitcher & Poland, 1992). Eaves (2001) stated that students in these settings typically were more irritable and less attentive and had difficulties memorizing and retaining new information. Over the long term, children who did not receive the necessary supports to deal with issues related to grief and loss were at risk of failing to thrive. In many cases, crises have acted as a catalyst, intensifying other problems that already existed with individual students or within a school community (Brock & Jimerson, 2004a). Brock, Sandoval, and Lewis (2001) also noted that schools that were reactive when responding to crises often amplified the magnitude of the crisis by delaying or not adequately managing the

response. Thus, not responding, responding inappropriately, or responding too slowly to school crises has been shown to negatively impact school communities.

In contrast, schools that are prepared for and respond effectively following a crisis typically lessen the impact of the crisis on the students and the school community.

Preparation is key for a variety of reasons. First, well-prepared school systems that have established crisis procedures are less likely to leave out critical components of an effective crisis response (Brock, 2002a; Brock & Poland, 2002). In addition, school systems that are well prepared are usually able to respond to crises more quickly, another key factor in minimizing the impact of the crisis on the school community (Allen & Ashbaker, 2004; Brock et al., 2001; Pitcher & Poland, 1992; Poland, Pitcher, & Lazarus, 2001). The ability of prepared schools to provide the necessary supports for students is critical, as students have been shown to benefit immediately and in the long-term when given an opportunity to express their feelings and reactions to the crisis event (Pitcher & Poland, 1992; Poland, 1994).

In fact, many experts on crisis response have described crises as being both a danger and an opportunity (Brock, 2002a; Carter & Brooks, 1990; France, 2002; Gilliland & James, 1993; Kanel, 1999; Kline, Schonfeld, & Lichtenstein, 1995; Petersen & Straub, 1992; Poland et al., 2001; Whiting, 1998; Wiger & Harowski, 2003). From this viewpoint, crises bring both a danger in that individuals will regress if their grief needs are not met as well as a chance to grow and develop new coping skills if individuals are provided with the appropriate supports in their time of need. Brock and Poland (2002) took this argument one step further, highlighting the importance of appropriate crisis preparation in addition to making supports available during a response.

They noted that good crisis preparation also served the role of crisis prevention, as the trauma created by the crisis was minimized while those impacted by the crisis event often developed functional coping skills that could be accessed in the future.

School Crisis Preparedness And Training

Unfortunately, many of those who are expected to take a leadership role when responding to crises in schools report that they have been inadequately trained to meet these expectations (Allen, Jerome, White, Marston, Lamb, Pope, & Rawlins, 2002; Brock et al., 2001; Eaves, 2001; Wise, Smead, & Huebner, 1987). In fact, Allen, Jerome, et al. (2002) found that only two percent of school psychologists who responded to a survey about their crisis preparation experiences felt well prepared or very well prepared to respond to a school crisis. Over half of the respondents reported that they were minimally or not prepared to handle crises in their schools. This is not surprising considering that less than half of the surveyed school psychologists reported participating in crisis intervention training as part of their graduate, practicum, or internship experiences. The majority of these psychologists were continuing to seek out crisis intervention training opportunities following graduation, but emphasized the need for comprehensive graduate coursework on crisis intervention. A similar survey of school counselors conducted by Allen, Burt, Bryan, Carter, Orsi, and Durkan (2002) reported similar trends, as the majority of school counselors responding indicated that they were minimally or not at all prepared to respond to crises in their schools.

Fortunately, a number of school psychology graduate programs and the National Association of School Psychologists are beginning to address this training need by adding crisis intervention to accreditation requirements and graduate training curricula (Allen,

Jerome, et al., 2002; Poland et al., 2001). However, there continues to be a need for high quality crisis intervention training with school personnel already working in the field. A number of researchers feel that school psychologists are logical choices for more training and have the opportunity to take a leadership role in crisis response (Cornell & Sheras, 1998; Nickerson & Zhe, 2004).

There is currently overwhelming consistency in the literature about various components of effective crisis preparation and response, as well as some suggestions about what skills crisis training should include (Nickerson & Zhe, 2004). A number of authors have expressed the need for high quality staff development opportunities for school personnel so that educators know crisis procedures, can learn appropriate ways of responding, and have opportunities to practice these skills (Brock et al., 2001; Brock & Poland, 2002; Decker, 1997; Klicker, 2000; Kline et al., 1995; Nader & Muni, 2002; Petersen & Straub, 1992; Poland et al., 2001; Trump, 2000). However, there are few examples of comprehensive, systematic training protocols. More importantly, there is little or no research demonstrating the effectiveness of crisis training.

In addition to the lack of systematic training protocols and proven research, there are multiple existing barriers that must be overcome to provide effective training for school system staff (Eaves, 2001; Kline et al., 1995; Poland, 1994). Some of these barriers are common to any school training initiatives, including a perceived lack of time and resources, territorial disputes, and administrative resistance. There are also barriers that are more specific to crisis situations and are often related to fears or misperceptions about responding, such as feelings that responding will make the situation worse or draw

negative attention to the school. These false beliefs may be used to justify not pursuing training and preparation opportunities.

Existing School Crisis Research

Clearly, there is an ongoing need for individual staff members and school systems to be ready when a crisis does occur. While there has been a great deal of anecdotal research on crisis preparation and response, there have been few if any systematic efforts to evaluate the effectiveness of crisis plans, procedures, and actual responses in schools (Brock & Poland, 2002; Brock et al., 2001; Nickerson & Zhe, 2004; Pagliocca & Nickerson, 2001; Pagliocca, Nickerson, & Williams, 2002; Poland, 1994). In addition, there have not been comprehensive evaluations completed looking at the perceived effectiveness of crisis response teams (Nickerson & Zhe, 2004). This lack of systematic research exists despite the fact that recent reviews of the crisis literature found a tremendous amount of consistency regarding the recommended steps and strategies for crisis planning and response (Nickerson & Zhe, 2004; Pagliocca & Nickerson, 2001).

There are a number of reasons why the effectiveness of crisis training and school-based crisis response has not been systematically studied. Twenty years ago, crisis intervention was seen as an emerging field of study (Hendricks, 1985), and there had been few efforts to carefully implement and investigate the effectiveness of school-based procedures. Today, research efforts continue to be complicated due to the difficult, unpredictable, and infrequent nature of crises (Pitcher & Poland, 1992). Moore, Petrie, Braga, and McLaughlin (2003) noted that rare incidents, such as lethal school violence, were difficult to study empirically. Likewise, Brock, Sandoval, and Lewis (2001) stated,

“since most crisis events are not foreseen, it is difficult to apply carefully controlled research designs to the study of school crises” (p. 299).

Another factor that has hampered evaluation efforts is the difficulty in assessing crisis response outcomes and attributing causal relationships to specific crisis intervention strategies, as crisis responses are often unique and extremely complex. Dziegielewski and Powers (2000) discussed this difficulty, noting “crisis intervention strategies represent multi-faceted perspectives that consistently pose challenging assessment problems for the professional practitioner” (p. 491). Finally, the nature of schools and school culture often interfere with systematic evaluation efforts. In general, school systems have typically been viewed as cultures that do not use systematic research findings in decision-making, instead implementing interventions and strategies based on face validity. Crisis events exacerbate this tendency, as crises do not provide schools with the time or luxury to wait for research to be completed to inform response efforts (Pagliocca & Nickerson, 2001). Researchers have recommended that school systems and crisis responders counteract this tendency to overlook crisis assessment by making comprehensive evaluation efforts an integral part of the school systems’ crisis plans and procedures (Brock et al., 2001; Pagliocca et al., 2002).

While much of the research about school crisis response has been anecdotal (Petersen & Straub, 1992), some components of crisis intervention have been studied (Pagliocca & Nickerson, 2001; Pagliocca, et al., 2002). For example, previous research has shown that individuals, including children in schools, respond more positively following a crisis if they are provided with positive supports to help them cope (Pagliocca et al., 2002). Likewise, the use of time-limited crisis intervention techniques has been

found to be somewhat effective (Dziegielewski & Powers, 2000). Pagliocca and Nickerson (2001) summarized a variety of research efforts. Their findings demonstrated that children are definitely impacted by crises and show a variety of grief reactions, schools benefit from having clearly developed crisis plans with well defined roles, and that the effectiveness of the crisis response is impacted by both the type of crisis and the skills of the crisis responders. Based on these findings, there does appear to be preliminary evidence that systematic crisis preparation and response can have a positive benefit for school communities.

Fortunately, the current crisis literature has included discussions of what future research is needed to better guide crisis preparation and response efforts. Many of these research needs are related to the preparation and training of school-based crisis responders. For example, a number of authors recommended the ongoing study of the effectiveness of crisis training to help identify what aspects of staff development are critical for preparing school-based practitioners and improving crisis responses (Brock & Jimerson, 2004b; Brock & Poland, 2002). In fact, Brock and Jimerson (2004b) suggested that more research was needed to investigate whether or not crisis preparation efforts and staff trainings are worth the time and effort, as there has not been substantial research showing that school systems that are heavily involved in these activities respond to and manage crises more effectively. Other authors have questioned the value of specific training techniques, such as the use of mock crisis drills, simulations, and tabletop exercises (Brock & Poland, 2002; Klingman, 1988; Pagliocca & Nickerson, 2001; Pagliocca et al., 2002). Even though these activities have been strongly recommended in the crisis preparation literature, the actual effectiveness of these training strategies is

uncertain. Some authors expressed concerns that these activities may feel threatening or overwhelming to participants or may lead to staff members underestimating the impact of true crises (Pagliocca et al., 2002). Brock, Sandoval, and Lewis (2001) stated the need for evaluation designs that measure the effectiveness of training by comparing the participants' skills before and after training to help investigate some of these issues.

Statement of Purpose

The purpose of this study was to develop, implement, and evaluate an intensive crisis preparation and intervention curriculum to be used in training school system personnel to respond to crises. The training curriculum was initially developed based on a thorough review of the crisis intervention literature as well as from the author's experiences as both a crisis responder and a trainer of other crisis responders. The developed curriculum was then implemented with a group of school system personnel who enrolled to take a class on crisis preparation and response. The school system personnel included a mix of school psychologists, school counselors, teachers, and a parent liaison. The crisis training curriculum included a variety of didactic and simulation activities. The simulation activities were used to give the participants practice in responding to crisis-like situations. The effectiveness of the crisis training curriculum was evaluated throughout the crisis training class to answer the following research questions.

- 1) To what extent did the training help to facilitate changes in learning and behavior when measured at the group and individual participant level using multi-method evaluation techniques?

- 2) To what extent did participants view the use of real-time crisis simulations as contributing to their learning and comfort level applying crisis preparation and response skills?
- 3) To what extent did the evaluation of the training lead to suggestions or modifications of future training efforts?

Definition of Terms

School Crisis

A school crisis is defined as any event that impacts two or more individuals in a school setting and interferes with their functioning within the school, creating disequilibrium. School crises can include but are not limited to the injury or death of a student, staff member, or community member, acts of war or terrorism, and natural and man-made disasters.

School Crisis Intervention and School Crisis Response

The terms school crisis intervention and school crisis response are used interchangeably in this study and are viewed as the activities, procedures, and structure used to respond to a crisis in a school once a crisis event has occurred.

School Crisis Intervention Team

The term crisis intervention team refers to any school-, district-, or regional-based team of individuals trained in and expected to provide school crisis intervention.

School Crisis Preparation

School crisis preparation is defined as the activities, procedures, structure, and training implemented by an individual, school staff, and/or school system before a crisis occurs to increase the readiness, timeliness, and/or effectiveness of a crisis response.

School Crisis Training Curriculum

This phrase refers to a systematic training curriculum designed to prepare individuals and teams in crisis readiness and crisis intervention strategies.

CHAPTER II

REVIEW OF LITERATURE

The purpose of this review is to investigate the literature regarding the essential components for school crisis preparation and response, as well as for the training of school crisis responders. A review of the literature on these topics provides a number of challenges. As has been previously mentioned, the infrequent and unpredictable nature of school crises has made the effectiveness of preparation and response activities difficult to study systematically. Thus, while there is a general agreement throughout the literature about necessary steps in crisis preparation and response, there is little actual research to support these recommendations. Likewise, there have been few documented efforts to carefully develop and assess a comprehensive crisis-training curriculum. Finally, a crisis and the ensuing crisis response are, by nature, very complex and unique, making them complicated to study. Researchers face numerous problems when trying to control for specific variables, interpret causal relationships, or measure the effectiveness of training.

This literature review will first examine the reasoning behind school crisis intervention as well as the current recommendations and approaches to school crisis preparation and intervention. Then, a brief synopsis of the current evidence regarding the effectiveness of school crisis intervention will be discussed. Finally, the nature of adult learning and strategies for planning, developing, and evaluating trainings for working professionals, and specifically crisis preparation and intervention trainings, will be investigated.

Crisis Intervention in Schools

The Need for Crisis Intervention in Schools

Over time, schools and school systems have taken a larger role in responding to a wide variety of crises with children (Petersen & Straub, 1992). Without exception, authors and experts in the field of school crisis intervention confirm the need for trained crisis teams that can support schools through proper preparation, intervention, and follow-up to minimize the negative impact of crises (Brock et al., 2001; McGlenn & Jimerson, 2004; Poland et al., 2001). These trained crisis responders are expected to play a large role in primary, secondary, and tertiary crisis response efforts (Brock et al., 2001; Pitcher & Poland, 1992; Poland, 1994, 1998; Poland et al., 2001). In other words, crisis teams have been given the mission of developing strategies and plans for preventing crises from occurring, responding immediately following a crisis to minimize the impact on the school/s, and then helping to support the longer-term crisis needs of staff and students by providing direct supports over time. While school systems have many goals and objectives, their two primary functions are to ensure student learning while also providing a safe, secure learning environment. Crisis teams and crisis response plans help to meet one of these key goals, as these supports foster safe and secure environments in schools (Jimerson & Huff, 2002). In fact, Kline, Schonfeld, and Lichtenstein (1995) report that school crisis teams can have a positive impact on students, staff, parents, and the community.

Factors Contributing to Resiliency to Crises

While the primary purpose of this research focuses on developing crisis preparation and response procedures designed for working with school communities in

crisis, one should always remember that individuals typically respond to crisis events very differently. Toubiana et al. (1988) suggested that one major limitation of much of the literature discussing crisis response was the “failure to consider predisposition to stress reactions or stress resistance among victims or other copers” (p. 229). In fact, many students and staff members may be less impacted by a crisis, whether because they have minimal connections to the situation or because they have already developed coping skills that allow them to handle a crisis event effectively without further outside intervention.

Skill sets that foster resiliency in crises can be looked at in a number of ways. For example, some individuals may possess coping skills that make them less susceptible to the initial stressors associated with a crisis event. Klingman (1988) estimated that approximately 25% of people “remain relatively capable of purposeful action in emergencies” (p. 208). Based on this estimate, one could assume that the crisis situation either didn’t lead to a state of disequilibrium for these individuals or that they already possessed the coping strategies to successfully navigate their initial disequilibrium. Taking this argument one step further, Carter and Brooks (1990) described how “some people accommodate to a crisis and achieve higher levels of post trauma functioning without the benefit of professional intervention” (p. 379). Thus, many individuals can not only independently cope with the initial disequilibrium and confusion caused by a crisis event, but can also gain additional coping skills fairly independently.

Other researchers have investigated an individual’s ability to cope with stressors or crises by considering the environmental factors that act as buffers to stress reactions in crises (Brooks, 2002; Faust & Katchen, 2004; Toubiana et al., 1988). For example,

Brooks (2002) identified three key domains that influenced the resiliency of children. These three domains included their inner resources, such as their temperament and self-esteem, as well as their family resources and social resources. Toubiana et al. (1988) noted that family cohesiveness, community cohesiveness, encouraging children to access available supports, and adults modeling and sharing their own emotional reactions with children have all been associated with resiliency and coping skills. Likewise, Faust and Katchen (2004) indicated that children's ability to cope with traumatic events was influenced by their pre-crisis functioning, family support and structure, current life situations, academic success, supportive peer relationships, age, maturity, and the supports and resources that were already available to them. If these support structures were strengthened, the child would then have stronger buffers in place and be more resilient when a crisis did occur. Therefore, while Faust and Katchen (2004) stated, "It is evident that no one individual responds to trauma in a predictable or consistent manner" (p. 436), they did indicate that pre-crisis factors could greatly enhance a child's resiliency in the face of a stressful, traumatic event.

Critical Components of Crisis Preparation

There are many critical components of school crisis preparation. Some of these components involve gaining support for developing crisis teams and identifying appropriate personnel for crisis response, while other components include the identification of procedures and resources needed to effectively respond to various crisis situations. These individual components of effective preparation are important because they help provide structure to a crisis and allow for a timely response, both of which are viewed as critical aspects of controlling and managing a crisis situation. In fact, many

authors have discussed the importance of having a structured and timely response following a crisis (Brock et al., 2001; Brock & Poland, 2002; Cornell & Sheras, 1998; Gilliland & James, 1993; Greenstone & Leviton, 1993; Jimerson & Huff, 2002; Petersen & Straub, 1992; Poland et al., 2001; Ritter, 2002; Thompson, 1995).

There are a variety of reasons why timely and structured responses are invaluable. Due to the chaotic and disruptive nature of crises on the school environment, a poorly handled response or a crisis that is ignored may exacerbate the trauma caused by a crisis, have a negative impact on academic and adaptive functioning, and harm the school's climate (Celotta, 1995; Kline et al., 1995). In comparison, being prepared to respond may help to instill a sense of calmness after a crisis occurs (Whiting, 1998), limit confusion (Jimerson & Huff, 2002), and reduce the intensity of the anxiety and trauma experienced by the members of the school community (Allen & Ashbaker, 2004; Brock & Poland, 2002; Jimerson & Huff, 2002). Schools that are able to handle a crisis situation effectively do this in part by providing a sense of security, structure, stability, and routine (Brock et al., 2001; Johnson, 2000b; Speier, 2000) that is helpful and comforting for students and staff.

Administrative Support for Crisis Preparation

System-level administrative support is critical for school systems attempting to develop and implement comprehensive crisis intervention plans. Developing these plans and training potential team members takes time and resources that likely need to be allocated at a district-level (Brock, 2002c; Dwyer & Jimerson, 2002; Pitcher & Poland, 1992). Administrative support is also necessary at the building-level, as principals and other administrators play a critical role in leading crisis preparation and response efforts

(Johnson, 2000b; Klicker, 2000; Poland, 1998; Poland et al., 2001). Without the support of the principal, the school-based team will likely not have the resources to plan and prepare for potential crises. Likewise, actual school crisis responses will likely be less systematic and more disorganized.

Developing Crisis Response Teams

One of the key steps in preparing for a crisis is to identify the core group of individuals responsible for responding (Croft, 2005; Dwyer & Jimerson, 2002; Poland et al., 2001) and how these individuals will be organized. Clearly, no one person is capable of managing and responding to a school crisis situation on his or her own (Pitcher & Poland, 1992). Therefore, many authors have advocated for developing and training teams of crisis responders. A variety of models for organizing crisis response teams have been discussed, including the use of school-based teams, district and/or regional school system teams, and combined school-community teams. Most authors support a hierarchical model of crisis response that includes school-based, district, and regional response teams working in conjunction as needed (Brock, 2002c; Brock et al., 2001; Klicker, 2000; Kline et al., 1995; Lichtenstein, Schonfeld, & Kline, 1994; Newgass & Schonfeld, 2000; Petersen & Straub, 1992; Trump, 2000). This hierarchical structure emphasizes using school-based teams as primary responders with regional- and district-level teams providing additional support and expertise when necessary (Brock, 2002b).

There appear to be many benefits to using school-based crisis teams as the primary responders during a school crisis. One of the most important benefits is the familiarity of the responders and their awareness of the needs of the students and staff at the school (Brock et al., 2001; Pitcher & Poland, 1992; Poland, 1998; Trump, 2000).

This familiarity may increase the likelihood of impacted individuals seeking out support, as the respondents are less likely to be considered intrusive (Gullatt & Long, 1996). Likewise, the school-based responders should be familiar with each other and hopefully have a good understanding of the expertise each person can bring to the response (Pitcher & Poland, 1992). A well-managed crisis response led by a team of school-based personnel demonstrates to the students, staff, and community that the school is prepared and capable, adding a sense of safety and security within the school community (Newgass & Schonfeld, 2000).

Another benefit of training school-based teams as primary responders is that the school-based personnel are responsible for providing much of the immediate and long-term follow-up at the school (Klicker, 2000). School-based personnel often must start planning and responding immediately following a crisis and do not always have the luxury of waiting for an outside team to arrive at the school to lead a response. Since the first decisions made immediately following a crisis can have a significant impact on the quality of the response, schools must have trained crisis responders on staff to ensure that appropriate procedures are followed. Similarly, the school-based personnel are often largely responsible for supporting students and staff in the days, weeks, and months following the crisis. These staff members must have the training necessary to identify individuals who continue to be impacted and need additional supports after the initial wave of crisis intervention has passed.

District- and regional-level teams would be responsible for a variety of roles and provide additional resources in a hierarchical crisis response model. The availability of district crisis response teams has the obvious benefit of increasing the pool of possible

responders in case more trained help is needed during a school or community crisis (Brock, 2002c; Brock et al., 2001). These district responders should be well versed in the school system's crisis procedures and should have similar training experiences to that of the school-based crisis team. In some school systems, the district-level crisis responders receive more intensive training. These individuals and teams are available for consultation during crises and help provide and lead training with school-based teams (Brock, 2002c; Brock et al., 2001; Howard County Public School System [HCPSS], 2004b; Johnson, 2000b; Klicker, 2000; Lichtenstein et al., 1994).

Regional-level teams would likely be used less frequently. For example, a regional response team might be necessary in the case of a large-scale disaster involving a community, entire school, or school system (Brock, 2002c; Klicker, 2000). In addition, regional-level teams can support crisis responses across school districts by providing extra responders or additional expertise as needed (Klicker, 2000).

The size of the school-, district-, and regional-level crisis response teams may vary based on a few factors. School-based teams are traditionally not very large and usually can be adequately staffed by four to eight trained responders (Pitcher & Poland, 1992; Poland, 1994, 1998). Pitcher and Poland (1992) estimated that schools needed one crisis team member for every one hundred students in the school. In comparison, district- and regional-level teams usually have many more members based on the size of the community being served and the responsibilities of the teams. For example, in this researcher's school system, the district-level cluster crisis team recently included sixty-five responders serving over seventy schools in the district.

At times however, some school districts may not have the training capacity and/or the resources to independently prepare for and intervene following a major school crisis. A few authors have supported the use of community-based responders working in conjunction with school teams to increase the resources and skill sets available, to make supports available when schools are closed, and/or to provide additional resources in the event of a large-scale crisis (Johnson, 2000a, 2000b; Klingman, 1987; Underwood & Dunne-Maxim, 2000; Young, 1998, 2002). While this response structure may have some merits, there are some important considerations when using a community-school partnership. First, the school system staff must plan ahead of time to determine how these outside providers will be used in the response and ensure that the community responders have the appropriate training and expertise (Poland, 1994). In addition, the community responders should be involved in training with school-based teams and be familiar with the cultural contexts of the various schools in the district (Johnson, 2000a, 2000b; Thompson, 2004). Finally, even if community responders are involved in providing crisis supports in a school setting, the response should always be led by the school team or school system personnel (Brock et al., 2001; Obiakor, Mehring, & Schwenn, 1997).

Two well-known community-based crisis intervention protocols that have been implemented in some school districts following a crisis include the National Organization of Victim Assistance (NOVA) community crisis response team model and the Critical Incident Stress Management (CISM) crisis intervention system. Both models emphasize the importance of providing psychological “first aid” and triage to help individuals begin to restore their equilibrium following a crisis event. The NOVA crisis response teams act

strictly as community-based crisis responders and can be called on by school personnel and/or community leaders to help manage and provide supports during large crisis responses (Young, 1998, 2002). The CISM approach also uses a community-based model where outside teams can be called in to help support a response (Everly & Mitchell, 1999, 2000). In addition, some school districts have had their school system personnel trained in CISM, with these individuals then acting as the primary responders when crises occur in their school districts. Although these models of crisis response have not typically been used in the researcher's school district, the two models will be briefly reviewed here since crisis responders in other districts may be trained in these models prior to a crisis and/or may seek assistance from these organizations after a crisis occurs.

Young (1998, 2002) described the National Organization of Victim Assistance (NOVA) model and discussed the types of school crises NOVA teams had responded to in the past. NOVA teams called in to support the school community are able to offer a wide range of crisis services. Initially, the NOVA team members can help the school-based crisis personnel systematically plan the crisis response. After the crisis response is planned, the NOVA crisis team can, as needed, provide a range of crisis supports in the days following the crisis. Examples of these supports include facilitating community meetings, communicating with the media, and leading group crisis interventions. NOVA crisis responders typically provide group crisis interventions using a specific crisis response protocol. Generally, teams of three or more crisis responders lead crisis interventions for high-risk groups. Each group crisis responder on a NOVA team has a well-defined role throughout the group crisis intervention. The key elements of crisis intervention in the NOVA model include safety and security, ventilation and validation,

and prediction and preparation (SS-VV-PP) (Young, 1998). The NOVA responders work with the impacted groups to identify their reactions and experiences, integrate the tragedy as part of their life experiences, and begin to prepare for the future. Following these group interventions, the NOVA crisis team members can help to identify individuals in need of further support and can consult with school staff regarding long-range planning (Young, 1998, 2002). Young (2002) reported that the research regarding the effectiveness of the NOVA crisis response model and other short-term crisis intervention strategies was unclear, although anecdotal reports collected at NOVA responses consistently indicated that the victims appreciated the supports offered by the responders.

The Critical Incident Stress Management (CISM) crisis system offers a similar range of supports for school communities (Everly & Mitchell, 1999, 2000). The CISM crisis system was initially developed to support adults such as first responders to emergencies (e.g., police, firefighters), other witnesses, and heavily impacted adult groups. The CISM model provides crisis supports at the pre-crisis phase, the acute crisis phase, and the post-crisis phase (Everly & Mitchell, 1999, 2000). CISM crisis responders offer a mix of individual and group crisis interventions that can be matched to the needs of the school and/or the community. Everly and Mitchell (2000) reported that various aspects of the CISM system could be adapted for use with school populations, although the model was not developed for this purpose and they provided no research or other data to support this assertion. In fact, all of the studies of CISM reviewed by Everly and Mitchell (1999) involved interventions where supports were provided to groups of adults in non-school settings.

The primary CISM intervention that Everly and Mitchell (2000) discussed using with children in schools was Critical Incident Stress Debriefings (CISD). The CISD group protocol follows a similar pattern to the NOVA model that was described previously, although the terminology used in the CISD model is different. The CISD group facilitators focus on introductions, facts, thoughts, reactions, symptoms, teaching, and re-entry while helping the participants move from a cognitive level to an emotional level and then back to a cognitive level of processing the crisis event (Everly & Mitchell, 1999, 2000). However, Everly and Mitchell (2000) recommended that the debriefing structure be significantly altered or not used for children under the age of six. Likewise, they reported that many children between the ages six to thirteen might not be able to conceptualize the thought phase and the symptom phase of the model. Everly and Mitchell considered children thirteen and older to be cognitively and emotionally able to benefit from the entire debriefing process.

Identify Roles and Responsibilities of Crisis Responders

In addition to knowing who will be responsible for responding to a crisis, the school teams and school system should also identify the roles and responsibilities of the crisis responders. Many authors in the field of crisis preparation have noted the importance of clearly defining the roles and responsibilities of school-based and district-level crisis team responders (Allen & Ashbaker, 2004; Brock, 2002c; Brock et al., 2001; Caudle, 1994; Croft, 2005; Gilliland & James, 1993; Herman, 1994; HCPSS, 2004b; Klicker, 2000; Newgass & Schonfeld, 2000; Petersen & Straub, 1992; Pitcher & Poland, 1992; Poland et al., 2001; Purvis, Porter, Authement, & Boren, 1991; Quinn, 2002; Thompson, 1995; Trump, 2002; Underwood & Dunne-Maxim, 2000). The crisis team

responders should come from a variety of professions within the school so that the team can successfully meet the varied needs of the school during the crisis (Caudle, 1994; Gilliland & James, 1993; Quinn, 2002; Roberts, Lepkowski, & Davidson, 1998; Siehl, 1990; Sorensen, 1989; Thompson, 1995, 2004; Trump, 2000). Likewise, these members must clearly understand their responsibilities and roles so that they can effectively collaborate during the crisis response (Cornell & Sheras, 1998).

Developing a Crisis Plan

To be effective, crisis responders must be prepared and be able to respond in a timely fashion, and their presence should increase feelings of safety and security by providing structure during a chaotic time. One critical aspect of successful crisis management is comprehensive preplanning and preparation (Metzgar, 2002; Obiakor et al., 1997; Stevenson, 2002). Authors writing on the topic of school crisis preparation and response consistently advocated for school systems having systematic, comprehensive, pre-developed crisis response plans in place before a crisis occurs (Brock, 2002c; Brock & Poland, 2002; Brock et al., 2001; Collison et al., 1987; Croft, 2005; Decker, 1997; Eaves, 2001; Gullatt & Long, 1996; Hanna, 1998; Hazell, 1991; Herman, 1994; Howard County Public School System [HCPSS], 2004a; Jacob & Feinberg, 2002; Jimerson & Huff, 2002; Klicker, 2000; Kline et al., 1995; Liotta, 1996; McGlenn & Jimerson, 2004; Meagher, 2002; Newgass & Schonfeld, 2000; Obiakor et al., 1997; Pagliocca & Nickerson, 2001; Petersen & Straub, 1992; Peterson, Address, Schroeder, Swanson, & Ziff, 1993; Pitcher & Poland, 1992; Poland, 1998; Poland et al., 2001; Roberts et al., 1998; Schonfeld, 1993; Siehl, 1990; Thompson, 2004; Trump, 2002; Waddell & Thomas, 1999; Whiting, 1998). In fact, many specified that school systems should develop written

crisis response handbooks or manuals that could be used to guide all aspects of crisis preparation and intervention (Brock, 2002c, Brock et al., 2001; Decker, 1997; Meagher, 2002). These manuals often included strategies for ensuring the safety and security of the school community, outlined the specific roles and responsibilities of the individuals involved in crisis response, denoted the specific procedures to be followed in the event of a crisis, and discussed long-term supports and debriefing following crises (Brock, 2002c; Gullatt & Long, 1996; Hanna, 1998; Kline et al., 1995; Newgass & Schonfeld, 2000; Pagliocca & Nickerson, 2001). To ensure that crisis preparation and response were taken seriously, Jacob and Feinberg (2002) recommended that school systems require these activities and procedures as part of their safe school plans.

Developing crisis checklists. An important aspect of many crisis plans is the crisis checklist that can quickly and easily be used during a school crisis to ensure that all of the appropriate steps have been taken throughout the response. Numerous authors in the field of crisis preparation and response have advocated for the development and use of these checklists (Brock et al., 2001; Celotta, 1995; Decker, 1997; HCPSS, 2004a, 2004b; Johnson, 2000b; Lichtenstein et al., 1994; Petersen & Straub, 1992; Poland et al., 2001). These types of response tools can be critical supports for the crisis team members, as crises often create environments that lead to individuals having difficulties thinking clearly and maintaining organized responses (Pitcher & Poland, 2002).

Developing a crisis phone tree. Another critical planning element is the development of a crisis phone tree. In fact, there should be two sets of crisis contact procedures developed. The first phone tree or set of procedures should identify the hierarchical steps for notifying the appropriate school system personnel about the crisis

(Brock et al., 2001; HCPSS, 2004b; Jimerson & Huff, 2002; Newgass & Schonfeld, 2000; Pleviak & Milkevitch, 2001; Thompson, 2004; Trump, 2000). The early use of this phone tree will be especially valuable if resources from outside of the impacted school will need to be brought in to help manage the crisis response.

The second phone tree that should be developed as part of the crisis plan is the phone tree used to notify school staff members of a crisis (Brock et al., 2001; Eaves, 2001; HCPSS, 2004a, 2004b; Jimerson & Huff, 2002; Klicker, 2000; Lichtenstein et al., 1994; Petersen & Straub, 1992; Pleviak & Milkevitch, 2001; Quinn, 2002; Thompson, 2004). Eaves (2001) stated that schools must have clear procedures for accurately informing staff about a crisis and the subsequent crisis response procedures. In addition, the phone tree should be frequently updated to ensure that the numbers are accurate (Klicker, 2000).

There are a few critical elements to successfully developing and implementing a phone tree (HCPSS, 2004b; Klicker, 2000). First, the phone tree should account for every member of the staff, including administrators, teachers, assistants, and other personnel such as the cafeteria and janitorial staff. Second, the phone tree should include directions that specify the procedures for making contacts, identify what steps to take when a staff member cannot be reached, and outline the method for closing the phone tree. Third, the phone tree should begin with an opening statement that gives the staff member warning that the phone call is about a crisis. The content of the message is also important. The information shared during the phone call should be consistent across staff members, include only confirmed facts about the crisis, and inform the staff member of the next steps that will be taken to respond to the crisis. Finally, the school staff should

practice using the phone tree before a crisis occurs. This gives the school crisis team members the opportunity to change or clarify any steps that are problematic during the implementation of the phone tree.

Identifying rooms and physical resources needed. The school's crisis response plan should also include information on the rooms to be used in the event of a crisis, including the rooms to be used for counseling as well as for the main base of operations (Brock et al., 2001; Klicker, 2000; Poland et al., 2001; Thompson, 2004). In addition to identifying what rooms will be used, the plan should also specify the procedures staff should use to refer students to these areas for support. Other physical resources that can be prepared ahead of time include copies of referral forms, bus schedules, class lists, school maps, and other materials that will be needed when crises do occur. Some schools have created crisis "tool boxes" to ensure that these materials are ready and available in one place in the event of a crisis (Brock, 2002c; Lichtenstein et al., 1994; Poland et al., 2001; Thompson, 1995, 2004).

Developing statement shells before a crisis occurs. Statement shells targeting a variety of potential crises are another set of tools that can be developed before a crisis occurs to help provide structure and ensure a timely response (Decker, 1997; HCPSS, 2004b; Pleviak & Milkevitch, 2001; Quinn, 2002; Thompson, 2004). Decker (1997) recommended developing statement templates ahead of time so that crisis teams do not end up constructing poor statements during the traumatic period following the crisis event. As part of the crisis plan in this researcher's district (HCPSS, 2004b), there are statement templates for sharing information with students, staff, and parents in response to a variety of potential crises involving students and staff members, including sudden

and/or unexpected deaths, deaths due to suicide, and deaths as a result of long-term illnesses. The statement shells prepare the students, staff, and/or parents that they will be receiving upsetting news, share facts regarding the crises, explain the range of common grief reactions, discuss intervention supports available, and provide guidelines for how the information will be updated.

Critical Components of Crisis Intervention in Schools

There are a number of critical components of crisis response that are widely agreed upon within the crisis intervention literature. These components are not implemented in a piecemeal fashion, but instead are all part of a comprehensive continuum of a crisis intervention response. In the best case scenario, the school-based crisis team representatives would have time to meet before the actual response to systematically assess and plan for the crisis needs of the school to determine what supports, including district-level responders, are needed (Brock et al., 2001). However, when a crisis occurs immediately before or during the school day, the team may have little time to formally meet and plan the response. In any event, the following procedures should be considered and implemented.

Many authors have also discussed the key goals of crisis response in a school setting. Specifically, these authors often described the critical goal of crisis response team as helping the students, staff, and/or school community return to equilibrium, or in other words, their predictable, pre-crisis level of functioning (Blom, 1986; Sandoval, 1985; Thompson, 1995; Waddell & Thomas, 1999; Zenere, 1998). Ideally, the individuals in crisis would also learn new coping skills that could be applied during future events (Chandras, 1999; Sandoval, 1985).

Verifying Facts About the Crisis Event

One of the key initial steps in responding to a crisis is to verify the facts about what actually happened and the status of the individuals directly impacted by the crisis event (Brock et al., 2001; Burns, 1990; Celotta, 1995; Croft, 2005; HCPSS, 2004b; Jimerson & Huff, 2002; Johnson, 2000b; Klicker, 2000; Petersen & Straub, 1992; Poland, 1994; Poland et al., 2001; Roberts et al., 1998; Thompson, 1995, 2004; Toubiana et al., 1988; Underwood & Dunne-Moore, 2000). Decker (1997), as well as others, noted the importance of the crisis responders sharing only correct, factual information regarding the crisis with students, staff, and the community. Brock, Sandoval, and Lewis (2001) recommended verifying the facts multiple times to ensure that the truth is given.

Ideally, the facts about what has occurred can be obtained directly from an immediate family member and/or the police. Clearly, verifying facts from the police will likely be easier if the school system has already developed a positive relationship with and a contact person within the police department (Petersen & Straub, 1992). In most cases, the school will be contacting a family member with knowledge of the crisis incident to verify facts. The school team may want to identify one crisis team member to act as a family liaison (Klicker, 2000; Petersen & Straub, 1992; Thompson, 1995). With one person acting as the primary family contact, there is less chance that information regarding the crisis will be misconstrued. The role of the family liaison will be described in more detail later in this chapter.

Assessing the Degree of Impact of the Crisis on the School Environment

The ability of the school-based personnel to assess the potential degree of impact of the crisis on the school environment is another critical component in successfully

managing and responding to the crisis event (Brock, 2002b; Brock et al., 2001; Croft, 2005; Guthrie, 1992; HCPSS, 2004b; Liotta, 1996; Pitcher & Poland, 1992; Poland, 1994; Poland et al., 2001; Thompson, 2004). If time permits, the appropriate school staff and/or crisis response team members should schedule a planning meeting to consider the various factors that will impact the school in the upcoming days and map out the crisis response (Blom, 1986; Blom, Etkind, & Carr, 1991; Croft, 2005; Guthrie, 1992; Roberts et al., 1998; Sorensen, 1989; Thompson, 1995; Weinberg, 1989, 1990). The school team must be able to quickly and accurately assess the needs of the students, staff, and community so that the appropriate resources can be provided and a sense of safety and security can be maintained at the school. There are a number of factors to consider when assessing the degree of impact of the crisis, including the type of crisis event that occurred, what individuals or groups will likely be impacted, and what resources need to be available to meet the needs of these individuals and groups.

The nature of the crisis event. The first consideration when assessing the potential degree of impact a crisis will have on the school is the nature of the crisis. Typically, a crisis has a more significant impact when the crisis is sudden, unexpected, and/or violent in nature (Brock et al., 2001; Jimerson & Huff, 2002; Klicker, 2000; Petersen & Straub, 1992; Pitcher & Poland, 1992; Thompson, 2004). Thus, crises due to suicides or homicides often have larger impacts on school populations, while a death as a result of a long-term illness tends to have less of an impact because the students and staff have the opportunity to prepare for the death beforehand. Additionally, the school crisis team can expect a much larger potential response if the crisis happened on school grounds and/or students witnessed the crisis event (Brock et al., 2001; Petersen & Straub,

1992). Crises that involve multiple students or staff members also tend to have a much bigger impact on the rest of the school community (Brock, 2002b).

The crisis history of the school and/or district. The school's crisis team must also consider the crisis history of the students and staff when assessing the degree of impact a crisis will have (Brock et al., 2001; Klicker, 2000; Pitcher & Poland, 1992). Schools and communities that have experienced many crises over a long period of time often have a greater need for support when another crisis occurs. In these situations, a crisis that might have a minor impact in many schools can greatly affect the school population due to the multiple grief responses experienced within the community over time. Likewise, a few crises occurring close together can lead to a bigger impact due to the cumulative effect of the losses on the students and staff.

The timing of the crisis. The timing of the crisis event also influences the impact the crisis has on the school (Brock et al., 2001). For example, a death due to a car accident during the senior prom would likely have a significant impact on the students because they would be together as a group, have established, long-term friendships, and at the same time be preparing for a turning point in their lives. These factors would all likely heighten their grief responses. In comparison, a death that occurs over the summer or during a school break often has less impact on the functioning of the school. In this case, the members of the school community have the opportunity to work through much of their grief with the supports that are available to them outside of the school setting before returning to school.

The victim's involvement within the school and the identification of those who will be heavily impacted. When assessing the degree of impact of the crisis, the school team

should have procedures in place for identifying and following up with at-risk students (Brock & Jimerson, 2004b; Klicker, 2000; Thompson, 2004). The impact of any crisis is influenced by the victim's relationship to others within the school community. Normally, a crisis event involving a popular student or teacher has a greater impact, requiring that more resources be allocated to respond at the school (Brock et al., 2001; Petersen & Straub, 1992). The injury or death of an individual involved in groups such as sports teams or the band will often lead to a more widespread impact across the school as compared to someone who is not involved in extracurricular activities. Also, classmates and friends will likely be more affected than those who were not as familiar with the deceased.

As a result, the school's crisis response team members should carefully identify the students and staff they think will need crisis support. Any such list would likely include friends, classmates, teammates, siblings and relatives, witnesses, individuals who have experienced other significant losses, and individuals with special needs who may have more difficulties handling the news of the crisis (Brock et al., 2001; Celotta, 1995; Collison et al., 1987; Croft, 2005; Hazell, 1991; Hendricks, 1985; Jimerson & Huff, 2002; Johnson, 2000b; Klicker, 2000; Klingman, 1987; Metzgar, 2002; Newgass & Schonfeld, 2000; Obiakor et al., 1997; Toubiana et al., 1988; Underwood & Dunne-Maxim, 2000). In addition, the crisis team members should identify any teachers who may be too upset to share information with their students or who may need other support during the day (Collison et al., 1987; Croft, 2005; Johnson, 2000b; Klingman, 1987; Petersen & Straub, 1992; Thompson, 1995; Toubiana et al., 1988).

Identifying resources needed. The final step in the impact assessment is to identify what resources will be needed to meet the needs of the school community based on all of the other factors involved in the assessment (Brock, 2002c; Brock et al., 2001; Johnson, 2000b; Pitcher & Poland, 1992; Sorensen, 1989). There are a variety of resources to consider. First and foremost, the school team must determine the number of responders that will be needed to effectively provide support for those impacted. As a general rule, the team should err on the side of having too many responders, knowing that if some responders aren't being utilized they can be given permission to return to their normal duties. There should be enough responders to meet with individuals and groups, follow the schedule of the deceased, and to be available to support staff as they share the information with the students.

In addition to planning for the human resources needed at the school, the crisis response team must consider the physical space resources that will be available (Brock et al., 2001; Celotta, 1995; Jimerson & Huff, 2002; Klingman, 1988; Purvis et al., 1991; Sorensen, 1989). Hopefully, the school team has already considered this when they developed the school's crisis response plan and has designated specific rooms or areas to be used for counseling. The team should ensure that the staff is informed of the areas that will be used for counseling and also explain the procedures for referring students to these support areas.

When assessing the response needs, the team should also consider the diversity of the school community (Burns, 1990; Jimerson & Huff, 2002; Poland et al., 2001). Based on the diversity within the community, the school team may need to make other resources available, such as statements that are translated into a variety of languages. Likewise, the

spiritual diversity of the population may also impact the response, as individuals with different religious and spiritual beliefs will expect or need different supports.

Considering Changes to the School Schedule

In general, researchers do not recommend closing schools or changing the school schedule following crises (Brock et al., 2001; Klicker, 2000; Sorensen, 1989; Thompson, 2004; Trump, 2000). A number of authors reported that children benefit from keeping school routines as normal as possible when they are experiencing upheaval in other areas of their lives due to a crisis (Brock et al., 2001; Celotta, 1995; Guthrie, 1992; Jimerson & Huff, 2002; Johnson, 2000b; Poland et al., 2001; Purvis et al., 1991; Toubiana et al., 1988; Trump, 2000). However, some concessions should be made following a significant school crisis. For example, the administrators should recommend postponing tests and modifying the demands for assignments in the days immediately following a crisis (Celotta, 1995; Greenstone & Leviton, 1993; Klicker, 2000; Obiakor et al., 1997; Petersen & Straub, 1992; Pitcher & Poland, 1992; Poland et al., 2001; Thompson, 1995, 2004). In addition, while the school routines should not be changed, the schedules of the administrators and other crisis team members may need to be rearranged so that the necessary supports and feelings of safety and security can be established. Administrators should make every effort to be visible throughout the school and members of the crisis team should be relieved of other regular duties so that they can dedicate their time to responding to the crisis needs of the students and staff (Celotta, 1995; Petersen & Straub, 1992; Poland, 1998; Thompson, 1995, 2004).

Identifying a Family Liaison

Many school teams identify a family liaison to act as the primary contact with the family of the individual or individuals directly involved in the crisis event (Brock et al., 2001; Klicker, 2000; Petersen & Straub, 1992; Roberts et al., 1998; Thompson, 1995; Underwood & Dunne-Maxim, 2000). Often the school team tries to choose an individual who already has an established relationship with the family to act as the liaison. The role of the liaison is to make the initial contact with the family of the injured or deceased person and then serve as the ongoing contact person for informational updates on the victim's health, the needs of the family, and any arrangements in the event of a death. Ideally, this will help the school crisis response team to receive verified, accurate, timely information that can be shared, as appropriate, with the school community. By forming this partnership as soon as possible following the crisis event, the school team is also available to help address any family needs and can receive input from the family on what information they are comfortable sharing with the school community.

Identifying a Media Liaison

As with the family liaison, numerous authors in the field of crisis response recommended naming one person at the school or within the school system to act as the media liaison (Brock et al., 2001; Caudle, 1994; Celotta, 1995; Croft, 2005; Hanna, 1998; Herman, 1994; HCPSS, 2004b; Johnson, 2000b; Klicker, 2000; Metzgar, 2002; Motomura, Iwakiri, Takino, Shimomura, & Ishibashi, 2003; Newgass & Schonfeld, 2000; Petersen & Straub, 1992; Pleviak & Milkevitch, 2001; Poland, 1998; Purvis et al., 1991; Quinn, 2002; Roberts et al., 1998; Siehl, 1990; Thompson, 1995; Underwood & Dunne-Maxim, 2000; Waddell & Thomas, 1999). In the event of a significant crisis at a school,

there will often be a media presence that, if uncontrolled, can take time and attention away from providing support for the students and staff. By assigning one person to proactively deal with the media, the school and school system can better maintain control over the flow of communication about the crisis and hopefully limit the distractions that may be caused by a media presence on or near the school campus. Ideally, a positive working relationship with the media will be established prior to any crisis (Poland et al., 2001). Poland, Pitcher, and Lazarus (2001) also recommended that staff and students be shielded from the media as necessary and be given strategies for responding to media requests in the event that media contact does occur.

Notifying School Staff Members

Another critical step in preparing for and managing a crisis is the notification of the school staff about the nature of the crisis. If at all possible, information regarding any crisis event should be shared with the school staff before students are notified (Guthrie, 1992; Petersen & Straub, 1992; Poland, 1994; Poland et al., 2001; Waddell & Thomas, 1999), as this gives staff members the opportunity to mentally prepare themselves to discuss the crisis with their students. Different procedures will likely be needed based on when and where the crisis occurs. However, regardless of the nature of the crisis, staff members should always be given accurate, verified information and be updated on impending steps or procedures that will be taken.

Crises that occur outside of the school day. When crises occur outside of the school day, the easiest way to notify staff is often by phone. The procedures for developing and implementing a phone tree have been described previously in this chapter. The school crisis responders must carefully monitor the application of the phone

tree procedures and develop a list of any staff members who could not be reached. The team must make plans for contacting these team members in other ways and/or meeting them as they enter the school so they are given the same information as the rest of the staff as early as possible. Likewise, the calls made using the phone tree can often be one of the first opportunities to identify staff members who are severely impacted by the crisis event. Often, an administrator or other crisis team member will be designated to call staff members who are likely to be very distressed by the news of the crisis.

Roberts (1995) described one such crisis, a student suicide, which occurred three weeks after the end of the school year. Roberts emphasized that the school's typical response plan was modified to reflect the fact that school was not in session and therefore the school environment was not directly impacted. As part of this response, the school's crisis team members notified faculty via phone, contacted the parents of the students' peer group, and visited the homes of highly impacted students as needed. In addition, the team prepared trainings and updates to support staff and students as they returned to school the following school year.

Crises that occur during the school day. School-based crisis teams often have difficulties accurately and rapidly notifying all staff about a crisis that occurs during the school day, especially if the crisis occurs within the building. When a crisis occurs during the school day in the building, the school-based crisis team has the dual role of managing the actual crisis while also trying to get accurate information out to all staff and students in an attempt to maintain a sense of safety and security. Some authors have recommended that staff members be informed about a crisis occurring during the school day by personally handing out a carefully worded statement that shares verified

information and discusses strategies for supporting students (Poland, 1994; Poland et al., 2001). However, this process has to be carefully monitored to ensure that all staff members receive the information about the crisis. In addition, the administrators should schedule a staff meeting at the end of the school day to update verified information, allow the staff members time to talk about their feelings and reactions, and to discuss the crisis response strategies to be implemented the next day (Poland et al., 2001).

This researcher has been involved in a number of school crisis responses that occurred during the school day. When crises have occurred within a school building and were witnessed by students and/or staff, the first step has been to ensure the immediate safety and security of those who were directly involved before attempting to share information about the crisis with the wider school population. One example of this occurred when a student suffered a head injury during recess. After paramedics attended to the student and transported her to the hospital, members of the school's crisis response team went to each class and shared information regarding what had happened. Students who witnessed the event and were especially upset were identified by the crisis team members or the classroom teachers and were given the opportunity to receive counseling supports.

When crises have occurred outside the school building but have had the potential to cause distress for students and staff, other procedures have been used to notify the staff members of the events. Two such examples were the terrorist attacks on September 11, 2001 and the sniper shootings that occurred in the Washington D.C. area during 2002. In these situations, this researcher's school-based team did notify all of the school's staff members before sharing any information with students. Because a full staff meeting

could not be held during the school day, the school-based crisis team met with each of the instructional team leaders and informed them of the crisis event. The team leaders were then asked to return to their teams and share this information with their other team members. Informational updates were provided in this manner as needed throughout the school day.

Updating staff on the crisis. In addition to initially notifying the staff about the crisis event, the school-based team should provide periodic updates about the condition or arrangements for the individual or individuals involved in the crisis. Often, staff meetings will be held before and/or after school on the days following the crisis to update the staff on any new information (Poland et al., 2001). Many school-based teams choose to hold brief staff meetings even if they have not received additional information so that they can check-in with all of the staff members and answer any questions about the crisis response.

Notifying Other Schools

In addition to notifying their own staff members, the school-based crisis team members should also notify other appropriate schools in their districts about the crisis (Brock et al., 2001; Klicker, 2000; Lichtenstein et al., 1994; Poland, 1998; Thompson, 1995, 2004). These schools can be impacted by the crisis in various ways. For example, siblings might attend other schools, students from other schools may have heard about or witnessed a crisis in the community, or students may be upset by the death of a former teacher. When crises directly affect multiple schools, it is even more critical that the school-based crisis teams work together to respond to crises. In this researcher's experience, school-based teams have worked together by sharing statements about the

crisis to ensure that consistent information is distributed to the community and to plan memorial activities following a crisis. Often, when multiple schools have been impacted by the same crisis, a crisis team member from each school has been assigned to act as the contact person with other schools to facilitate collaboration and clear communication.

Preparing Statements/Information to Share with the Students and School Community

An important task of the crisis response team is to determine what information will be shared with the staff, students, parents, and community. Speier (2000) stated, “Children are typically most fearful when they do not understand what is happening around them. Every effort should be made to keep them accurately informed, thereby alleviating their anxieties” (p. 13). Many authors have recommended sharing this information via prepared statements and letters so that the crisis team can ensure the information that is released is consistent and accurate for all of the recipients (Brock et al., 2001; Decker, 1997; Jimerson & Huff, 2002; Metzgar, 2002; Newgass & Schonfeld, 2000; Pitcher & Poland, 1992; Purvis et al., 1991; Thompson, 2004; Underwood & Dunne-Maxim, 2000).

There are a few important factors that should always be considered when preparing statements and/or letters sharing information with students, staff, and parents. First, the statements that are shared should always be based on honest, accurate, and verified information (Brock et al., 2001; Celotta, 1995; Croft, 2005; Hanna, 1998; Johnson, 2000b; Klingman, 1987, 1988; Newgass & Schonfeld, 2000; Obiakor et al., 1997; Petersen & Straub, 1992; Pitcher & Poland, 1992; Poland et al., 2001; Whiting, 1998). One benefit of providing accurate, honest information is that the team and school staff are then more ready and able to dispel any rumors that are not consistent with the

information that was shared (Brock & Jimerson, 2004b; Johnson, 2000b; Meagher, 2002; Newgass & Schonfeld, 2000; Petersen & Straub, 1992; Pitcher & Poland, 1992). In addition, any statements for students should be developed so that the information provided is developmentally appropriate (Decker, 1997). In some cases this may mean that the crisis team will need to develop multiple statements to share appropriate information across a range of developmental levels. The statements should also discuss normal grief reactions so that students and adults know what to expect (Celotta, 1995; Weinberg, 1990) and clearly outline the plans for the day, including how to access counseling supports (Celotta, 1995).

The Initial Staff Meeting

An essential step in effectively responding to a crisis in a school setting is to hold a full staff meeting at the first opportunity that the entire staff is present (Blom et al., 1991; Brock et al., 2001; Burns, 1990; Guthrie, 1992; HCPSS, 2004b; Jimerson & Huff, 2002; Johnson, 2000b; Klicker, 2000; Klingman, 1987; Kniesel, 1988; Metzgar, 2002; Newgass & Schonfeld, 2000; Petersen & Straub, 1992; Peterson et al., 1993; Pitcher & Poland, 1992; Poland et al., 2001; Purvis et al., 1991; Thompson, 2004; Underwood & Dunne-Maxim, 2000). An administrator or a member of the crisis response team typically facilitates the staff meeting. While not always possible, ideally this meeting would be held in the morning before students arrive at school. The facilitator should begin by thanking everyone for coming together during such a difficult time to support the students and each other. In addition, the facilitator should introduce the members of the school-based crisis team as well as any district- or regional-level crisis responders.

Holding a full staff meeting has a number of benefits. A key benefit is that the staff meeting gives the school-based crisis team members the opportunity to share verified, updated information about the crisis with all of the staff at one time (Brock et al., 2001; Klicker, 2000; Newgass & Schonfeld, 2000; Peterson et al., 1993; Siehl, 1990). This allows the school-based team members to maintain control over the flow of information about the crisis (Johnson, 2000b; Petersen & Straub, 1992) and dispel any rumors about the crisis event (Blom et al., 1991; Klicker, 2000; Kniesel, 1988; Siehl, 1990; Waddell & Thomas, 1999).

At the meeting, the staff can also be informed about the plans for the day (Brock et al., 2001; Celotta, 1995; Guthrie, 1992; Johnson, 2000b; Klicker, 2000; Newgass & Schonfeld, 2000; Siehl, 1990). The plans should include details about when and how to share information about the crisis with the students (Guthrie, 1992; Petersen & Straub, 1992), what rooms will be used for crisis support and how students and staff can access these supports (Klicker, 2000; Peterson et al., 1993; Underwood & Dunne-Maxim, 2000; Waddell & Thomas, 1999), and how updated information will be provided to students and staff during the school day (Klicker, 2000; Pitcher & Poland, 1992). Any other changes in the school schedule should also be discussed at this time. Due to the important nature of this information, the school's crisis team should identify any staff members who are not at the meeting to ensure that these staff members receive the same information (Thompson, 2004).

Next, all staff members should be given a copy of the statement that will be read to the students, with an emphasis placed on all teachers sharing the same information at the same time (Brock et al., 2001; Klicker, 2000; Petersen & Straub, 1992). Decker

(1997) recommended having the teachers practice reading the statement. When teachers read the statement multiple times, the first reading is to learn the statement's content. During the second reading, the classroom teachers are asked to imagine themselves sharing the statement with their classes. This allows teachers who feel they might have difficulties reading the statement in their classes the opportunity to request that a crisis responder be assigned to their rooms to help share the statement (Decker, 1997).

After the staff members have an opportunity to read the statement, the meeting facilitator should discuss possible student reactions to the crisis, warning signs to look for indicating that students need further intervention, any rumors that may be circulating, and possible responses to help dispel these rumors (Brock et al., 2001; Celotta, 1995; Johnson, 2000b; Klicker, 2000; Klingman, 1987; Newgass & Schonfeld, 2000; Petersen & Straub, 1992; Peterson et al., 1993; Thompson, 2004; Underwood & Dunne-Maxim, 2000). Often, crisis response teams have found it helpful to provide the staff members with a list of typical grief reactions. Likewise, in cases where many rumors are expected or staff members are unsure of how to respond, the school-based crisis team can provide a list of pre-developed responses to questions or rumors that can be attached to the general statement. These types of supports tend to help the staff members feel more comfortable and prepared when responding to students' questions and reactions.

After talking about general student reactions and questions, the meeting facilitator can discuss the list of individuals or groups who may be especially affected by the crisis. Often, this list will be generated while the school-based team is assessing the potential impact of the crisis event. The purpose of sharing this information with the entire staff is to ensure that any at-risk student is carefully monitored throughout the day. The person

presenting this list should ask the staff if there were any students who were missed and need to be added to the list to be monitored during the day. The staff also needs to know about any special procedures or strategies that will be taken with an individual or group. For example, sometimes close friends or teammates of a deceased student will be pulled out of class and have the statement read to them separately with only the immediate peer group present.

Another important component of the staff meeting is the validation of the staff members' reactions to the crisis. The teachers and other school staff should be given permission to show their grief and their grief reactions should be validated (Newgass & Schonfeld, 2000; Petersen & Straub, 1992; Poland, 1998; Thompson, 2004). In addition to showing support for the staff, taking this time to normalize the various staff grief responses also models for the staff appropriate ways of responding to students in grief. The staff should also be informed of what supports are available for them to access throughout the school day, as needed (Celotta, 1995).

The final two steps of the staff meeting are to answer any staff questions and review the plans for debriefing as a staff at the end of the day (Brock et al., 2001; Celotta, 1995; Klicker, 2000; Kniesel, 1988; Newgass & Schonfeld, 2000; Peterson et al., 1993). At this time it may be appropriate to discuss intervention strategies the teachers can use in the classroom to facilitate discussions about the crisis event. In addition, members of the school-based crisis team should take this opportunity to approach any staff members who seem to be very upset or distressed and see what, if any, supports they need.

Supports for Staff

While the primary concern in many crises is the safety and security of the students, the needs of the staff cannot be overlooked (Jimerson & Huff, 2002). There are a variety of strategies that can be used to support the school staff during a crisis. As has been previously mentioned, one critical strategy for supporting the staff is to regularly provide them with accurate, updated information about the crisis event. Some staff members may feel more comfortable if crisis team members are in their classrooms as information is shared and discussed with students (Celotta, 1995; Guthrie, 1992; Klingman, 1987, 1988; Siehl, 1990; Sorensen, 1989; Thompson, 1995). Another common strategy used to support staff during a crisis is to have extra substitute teachers available within the building to provide coverage for classes as needed (Brock et al., 2001; Celotta, 1995; Jimerson & Huff, 2002; Klicker, 2000; Poland et al., 2001; Thompson, 2004). These substitutes can be assigned to specific classrooms or can be made available throughout the day to cover classes if a teacher needs a break because he or she is upset. Poland, Pitcher, and Lazarus (2001) recommended that a list of reliable substitutes be identified ahead of time, and if possible, provided with some training on the school's crisis procedures. At times, other schools within the district or feeder system will send one of their staff members to the school to provide additional support for teachers (Klicker, 2000). This strategy has frequently been utilized to help provide coverage for a school when many teachers at the school request to attend a funeral or service held during the school day.

Other supports may be provided to meet the staff members' basic needs in the days following the crisis. Often, the school's PTA or the staff from other schools will

send food to be shared in the staff lounge. By providing this necessity, the staff members are reminded that others care about their situation and they have one less worry while grieving.

Finally, the school crisis team should provide for the long-term needs of the staff. While some of these supports will be discussed in more detail later, the school crisis team members should monitor the reactions of the school staff and make available a list of community resources for any staff members experiencing a severe or prolonged emotional reaction. Many school systems have employee assistance programs that can be utilized by staff members in need of further intervention and support.

Notifying Students

While the strategies for developing statements to read to students were discussed earlier in this chapter, the crisis team members should consider a few other critical factors when providing information to students regarding a crisis event. Ideally, students should be notified about a crisis as soon as possible (Brock et al., 2001; Klingman, 1987) once facts have been verified and the appropriate supports are available. Numerous authors recommended that every effort should be made to notify all students at the same time (Brock et al., 2001; Croft, 2005; Metzgar, 2002) and that the students should be given the information by a familiar adult or with a familiar adult present (Celotta, 1995; Decker, 1997; Kniesel, 1988; Metzgar, 2002; Newgass & Schonfeld, 2000; Stevenson, 2002), preferably in their classrooms (Brock et al., 2001; Celotta, 1995; Metzgar, 2002; Stevenson, 2002). The students should not be given this information over the public address system, as information about a crisis should be shared face-to-face so that the

adults can monitor the students' reactions (Brock et al., 2001; Celotta, 1995; Croft, 2005; Newgass & Schonfeld, 2000; Petersen & Straub, 1992; Weinberg, 1990).

Staff members should also be reminded that the manner in which they present the information about the crisis to the students could be very important. The staff members should feel comfortable modeling appropriate grief responses so that the students feel more comfortable sharing and expressing their reactions. Thompson (1995) emphasized this point, noting that students often looked toward the behavioral cues of familiar adults to guide their own responses.

Supports for Students

Following the schedule of the deceased. One of the key supports for both students and staff is to have a school-based crisis team member follow the schedule of the student or teacher who was the victim in the crisis (Brock et al., 2001; Celotta, 1995; Jimerson & Huff, 2002; Peterson et al., 1993; Pitcher & Poland, 1992; Poland, 1998; Thompson, 2004). Often, these classes include many of the students and teachers most impacted by the crisis, as they had daily interactions and established relationships with the victim or victims. The crisis responder following the schedule may be asked to take on extra responsibilities within the classroom and should be comfortable working on grief issues with groups of students. For example, this person often leads the class discussion and activities related to the crisis event. In addition, the crisis team member should continuously monitor the individuals in the class or classes in an attempt to identify anyone who may need to receive more intensive intervention or support. A member of the school-based team, who is able to provide a more familiar presence in the classroom as compared to a district- or regional-level responder, usually takes this role. Due to the

difficult and intense nature of this responsibility, school teams often assign pairs of responders to follow a schedule or rotate different crisis team members through the schedule throughout the school day.

Opportunities to express grief. Carter and Brooks (1990) emphasized the importance of giving individuals opportunities to express their grief, stating that “adequate affective processing is probably the single most significant aspect of postvention supporting healthy future responses” (p. 384). There are many different activities and opportunities that can be provided to students to give them structured methods for expressing their grief. For example, Petersen and Straub (1992), Klicker (2000), and Thompson (2004) have provided detailed descriptions of activities that can be done with grieving students in the classroom.

While these strategies will not be discussed in detail here, three of the most commonly used strategies include leading guided discussions about both the crisis event and student reactions (Croft, 2005; Finn, 2003; Greenstone & Leviton, 1993; Hawkins, 2002; Johnson, 2000b; Klicker, 2000; Newgass & Schonfeld, 2000; Nickerson & Zhe, 2004; Obiakor et al., 1997; Pitcher & Poland, 1992; Podell, 1989; Thompson, 2004; Toubiana et al., 1988), giving students the opportunity to make condolence cards (Jimerson & Huff, 2002; Klicker, 2000; Pitcher & Poland, 1992), and giving the students a chance to write, draw, or do other creative activities to express their feelings and reactions (Croft, 2005; Finn, 2003; Greenstone & Leviton, 1993; Hawkins, 2002; Johnson, 2000b; Klicker, 2000; Newgass & Schonfeld, 2000; Nickerson & Zhe, 2004; Pitcher & Poland, 1992; Thompson, 2004; Toubiana et al., 1988). These activities can be provided to students individually, in classroom settings, or in groups with other grieving

students who have been referred to a central area. These activities should stress sharing memories, honest reactions, and the validation of various grief responses (Klicker, 2000). The students' developmental levels play a large role in the usefulness and appropriateness of some activities, and this factor should always be considered before any intervention is provided (Brock et al., 2001; HCPSS, 2004b; Pfohl, Jimerson, & Lazarus, 2002). The crisis team members should directly contact the parents of any student who has had a severe reaction to the crisis and required individual counseling supports (Blom et al., 1991; Kniesel, 1988; Newgass & Schonfeld, 2000; Petersen & Straub, 1992; Siehl, 1990; Sorensen, 1989; Thompson, 1995, 2004; Waddell & Thomas, 1999).

Notifying Parents and the Community

As has been previously mentioned, the crisis team members must notify parents and in some cases the school community about the crisis event (Croft, 2005). Klicker (2000) recommended that a letter be sent to parents whenever a crisis response occurred at a school. The letter home should discuss the facts regarding the crisis event, describe the interventions made available to students, outline typical student reactions, and provide information on community resources (Waddell & Thomas, 1999). If available, information about funeral and/or memorial services can also be shared in the letter. In some cases, the school crisis team may choose to hold a parent/community meeting to share information about the crisis event and dispel any rumors, discuss response procedures, and address any questions or concerns from the community (Blom, 1986; Jimerson & Huff, 2002; Johnson, 2000b; Klicker, 2000; Motomura et al., 2003; Petersen & Straub, 1992; Poland et al., 2001; Toubiana et al., 1988).

Faculty Meeting at the End of the Day

One easily overlooked step in a systematic crisis response is the need to hold a faculty meeting at the end of the day to review the response outcomes and debrief with the school staff (Allen & Ashbaker, 2004; Celotta, 1995; Hazell, 1991; Petersen & Straub, 1992; Pitcher & Poland, 1992; Poland et al., 2001; Roberts et al., 1998; Siehl, 1990). At the beginning of this faculty meeting, the principal or meeting facilitator should thank the teachers and other staff for their dedication and effort during such a difficult time. If there is any new, confirmed information related to the crisis or any rumors that needs to be addressed, the principal should share this information as appropriate. The staff should also be given the opportunity to discuss the day, with a crisis response team representative briefly explaining the supports that were provided to students. During this time, the staff can discuss any students they have concerns about who may require additional follow-up. Finally, the administrator or a crisis team representative can briefly outline the plans for the next day, including whether or not crisis supports will continue to be offered if this decision has already been made.

Debriefing with the Crisis Team Following the Crisis

An important component of the crisis response is setting aside time to debrief as a school crisis team at the end of the day (Blom et al., 1991; Brock & Poland, 2002; Brock et al., 2001; Celotta, 1995; Collison et al., 1987; Croft, 2005; HCPSS, 2004b; Jimerson & Huff, 2002; Johnson, 2000b; Klicker, 2000; Kline et al., 1995; Metzgar, 2002; Newgass & Schonfeld, 2000; Obiakor et al., 1997; Petersen & Straub, 1992; Pitcher & Poland, 1992; Poland et al., 2001; Quinn, 2002; Thompson, 2004; Weinberg, 1989). There are a number of objectives to be completed during the debriefing. The crisis team members

should review and assess the day, identify at-risk students and staff in need of follow-up, and discuss what lessons were learned. In addition, the team can begin to plan for what resources and response strategies will be needed at the school the next day. The crisis intervention procedures in this researcher's school district recommend holding both a staff debriefing at the end of the day and a debriefing with just the crisis responders (HCPSS, 2004b).

Long-term Support and Follow-up

Providing supports following the funeral. One of the critical dates that will likely require additional supports and follow-up is the dates surrounding the funeral of a deceased student or staff member (Thompson, 2004; Underwood & Dunne-Maxim, 2000). In general, schools should not typically provide crisis supports to students or staff attending funerals or other religious proceedings, as these events occur off school grounds and are outside of the venue of the school's mission of providing a safe and secure learning environment (Waddell & Thomas, 1999). The school crisis response team should be prepared to respond to grief related issues following funerals or religious proceedings, especially if these events occur during the school day and students and staff choose to return to school afterwards. Poland, Pitcher, and Lazarus (2001) noted that school districts should clearly identify any policies regarding funerals ahead of time.

Identifying students or staff in need of long-term support. Gradually, most of the individuals in the school will return to a state of normal functioning following a crisis event. Some researchers have estimated that crises are time-limited events and people generally stay in a crisis state for no longer than four to eight weeks before returning to their level of previous functioning (Gilliland & James, 1993; Kanel, 1999). However,

some individuals in the school community will likely demonstrate more significant impairment over a longer period of time and may need to be referred for additional intervention outside of the school setting. Therefore, the school's problem solving team and/or crisis intervention/response team should meet regularly during the months following the crisis to continue to monitor and identify individuals in the school community who may need more intensive supports and may require additional intervention services inside or outside of school (Jacob & Feinberg, 2002; Jimerson & Huff, 2002; Peterson et al., 1993; Roberts et al., 1998). If students or staff do need more intensive supports than can be provided at school, the crisis team members can help identify potential community resources to provide this additional help (Croft, 2005; Kniesel, 1988; Thompson, 1995).

Important future dates to consider. As the school-based crisis team thinks about what long-term supports will be needed at the school, the team members should consider and plan for future dates and events that might lead to grief issues resurfacing. For example, anniversary dates of the crisis or of other crises that have occurred within the school community often lead to feelings of loss being revisited (Poland et al., 2001; Waddell & Thomas, 1999). Other important considerations include how the school chooses to handle remembrances at graduations and in school yearbooks. While there is no one right answer that fits every situation, the school crisis team, when consulting with the administrators on these topics, should always remember that decisions on these issues create precedents that can influence future crisis responses (Klicker, 2000; Poland et al., 2001).

Memorials. One of the last tasks of the crisis team will likely be consulting with the school community on the development of memorials following the death of a student or staff member. Issues surrounding memorials are likely to arise following any major crisis and must be addressed (Brock et al., 2001; Klicker, 2000; Newgass & Schonfeld, 2000; Petersen & Straub, 1992; Peterson et al., 1993; Poland et al., 2001; Underwood & Dunne-Maxim, 2000). Petersen and Straub (1992) recommended that schools select a memorial planning committee that includes members from various roles within the school, including staff, students, and parents. The goal of this committee would be to agree upon and develop a memorial as a remembrance to the deceased person or persons. One important consideration is that whatever is agreed upon sets a precedence for future crises, and thus the memorial committee should carefully consider the size and scope of the memorial before reaching a final decision (Klicker, 2000; Poland et al., 2001).

Considering the needs of the crisis responders. The crisis team leadership group must also monitor the needs of the crisis responders over time (Greenstone & Leviton, 1993; Johnson, 2000b; Petersen & Straub, 1992; Sandoval, 2002; Thompson, 2004). As with students and staff, the effects of responding to multiple crises can have a cumulative effect on grief responders. The grief responders should be reminded to take care of themselves and be given strategies and/or support in meeting this need. Depending on the crisis team structure within the district, crisis responders may not need to respond to all crises and may even be periodically rotated off of the team so that they do not experience burn-out or feel overwhelmed.

Evidence of the Effectiveness of Crisis Intervention

Overall, there is a significant lack of formal research demonstrating the effectiveness of crisis response in school settings, and various researchers and authors have stated that more systematic research is needed (Brock & Poland, 2002; Brock et al., 2001; Nickerson & Zhe, 2004; Pagliocca & Nickerson, 2001; Pagliocca et al., 2002; Poland, 1994). Currently, much of the research on school crisis responses consists of anecdotal accounts describing the steps taken and lessons learned following an actual crisis experience (Pagliocca & Nickerson, 2001; Petersen & Straub, 1992; Poland, 1994). Authors in the field of crisis intervention in schools have noted many difficulties with collecting systematic research data on school crises, including the unpredictable and infrequent nature of crises (Brock et al., 2001; Pitcher & Poland, 1992), the naturalistic environments of schools (Klingman, 1988), the difficulties assigning causality to specific intervention strategies due to multi-faceted nature of crisis response (Dziegielewski & Powers, 2000), and the concerns raised by conducting controlled research studies with populations in crisis, as the researchers couldn't risk hurting students by limiting their access to intervention (Poijula, Dyregrov, Wahlberg, & Jokelainen, 2001). Therefore, the following discussion will first consider the existing evidence of effective strategies for crisis preparation and response and then will explore the recommendations for future research.

Existing Evidence Regarding the Effectiveness of Crisis Preparation and Response

Croft (2005) recently completed one of the most comprehensive reviews of the research supporting school-based crisis preparation and response procedures. Croft systematically reviewed and coded evidenced-based research and/or experiential-based

practices related to school-based crisis intervention procedures to determine which specific crisis intervention procedures were supported by the existing literature. Then, based on this systematic review, Croft created lists of crisis intervention strategies that he felt could be strongly recommended, recommended, and not recommended given the existing research on school-based crisis intervention. In addition, Croft identified intervention strategies where more research was needed before a decision could be made about whether to recommend or not recommend using the strategy. The crisis preparation and response strategies and procedures identified earlier in this chapter included all of the strongly recommended and recommended practices identified by Croft. Likewise, most of the remaining crisis response strategies discussed previously in this chapter were considered to be promising practices, but with insufficient data available to conclude that the practices were effective (Croft, 2005).

Pagliocca and Nickerson (2001) also summarized the current crisis procedures supported by research efforts. They reported that previous research has demonstrated that children are impacted by crises and exhibit a variety of crisis responses, that having clear plans and procedures in place increased the organization of a response, and that the effectiveness of intervention strategies was dependent on both the nature of the crisis and the individual skills of the crisis responder. There was also some evidence that students demonstrated better coping skills following a crisis when the teacher discussed rather than ignored the traumatic event (Pagliocca et al., 2002). Similarly, Dziegielewski and Powers (2000) noted that research showed the relative effectiveness of crisis intervention using time-limited intervention techniques, but these techniques were not discussed in detail.

Recommendations for Future Research on Crisis Preparation and Response

Due to the overall lack of research, various authors in the field of crisis preparation and intervention have specified areas for future research. For example, a number of authors (Nickerson & Zhe, 2004; Pagliocca & Nickerson, 2001; Pagliocca et al., 2002) highlighted the importance of measuring the effectiveness of crisis management procedures, comprehensive crisis management programs, and/or crisis response teams. While there was a great deal of consistency in the crisis literature reporting that these aspects of crisis response are critical, there was no systematic research evidence clearly supporting these recommendations (Nickerson & Zhe, 2004; Pagliocca & Nickerson, 2001). Therefore, Pagliocca, Nickerson, and Williams (2002) have recommended that systematic evaluation practices should be included in every aspect of crisis preparation and response.

Brock and Jimerson (2004b) outlined some critical considerations for future research studies. They believed that more research was needed to study whether the initial level of concern regarding a crisis event was consistent with the actual needs of the school and to document what response steps were actually taken during crises. In addition, Brock and Jimerson recommended that researchers investigate the effectiveness of protective strategies that could be implemented before and during a crisis situation to reduce the trauma associated with the crisis. For example, they believed that the effectiveness of risk-screening and student referrals for crisis support could be evaluated to determine whether these steps helped control or alleviate the crisis state.

Klicker (2000) discussed crisis evaluation needs from a crisis plan perspective by recommending that post-evaluation procedures be built into all crisis plans. Ideally, these

evaluations would help to improve future responses by considering the effectiveness of specific crisis plan steps immediately following an actual crisis. Klicker advocated that crisis team members should assess the timeliness of the response, the appropriateness of the supports provided, and the effectiveness of the crisis plan procedures. By systematically evaluating these aspects of a crisis response, the crisis team could then identify future training needs and make any necessary changes to the existing crisis plan.

*Evidence of Crisis Preparation and Intervention Effectiveness in
Researcher's School District*

As with the larger body of research on the effectiveness of crisis preparation and response, the district-level crisis response team in this researcher's school system has only anecdotal evidence regarding the effectiveness of the crisis plan and crisis responses in the county. These verbal reports have been gained through debriefing meetings and conversations with school personnel involved in crises. While these anecdotal cases have all noted that the school-level and district-level crisis teams were usually effectively able to plan and respond to a variety of crises within the county, there is not systematic evidence measuring the effectiveness of these responses.

Training

The importance of quality training for crisis responders should not be overlooked. Due to the purpose of this research and the large focus on developing crisis trainings for working professionals, the literature reviewed here will include research on adult learning principles, the development of adult training programs, and the development of crisis trainings. As was noted earlier, numerous authors have highlighted the importance of high quality staff development activities regarding crisis preparation and response (Brock

& Poland, 2002; Brock et al., 2001; Eaves, 2001; Kline et al., 1995; Nader & Muni, 2002; Petersen & Straub, 1992; Poland et al., 2001; Trump, 2000). Jimerson and Huff (2002) stated, “Professional preparation will provide invaluable resources following a sudden, unexpected death at school” (p. 466). These training opportunities should be ongoing so that old and new school system staff members understand crisis plans, build their crisis response skills, and have a chance to practice these skills (Brock et al., 2001; Kline et al., 1995).

Before discussing the development of a training program on the specific topics of crisis preparation and intervention, some general principles regarding adult learning and the development of training programs for working professionals must be considered. While Tight (2002) noted that there is not a consensus among all theorists on effective strategies for teaching and learning among adults, there are some basic guidelines that are espoused by many researchers that will be discussed briefly here. Taylor, Marienau, and Fiddler (2000) summarized these common themes, finding that theorists frequently agreed that adult learners develop differently based on the individual traits and experiences they bring to learning and that adult learners want to interact with their environment, integrate newly learned information with previous learning experiences, and enhance their learning development by reframing their learning experiences. One must remember however that these learning principles are also influenced by other factors, such as the philosophical framework of the instructor, the context of the learning, the content of the material to be learned, and how the content is taught (Rogers, 1996).

General Considerations Regarding Adult Learning

Key Principles

One key principle of adult learning is that the teaching activities should incorporate active learning experiences (Costa & Garmston, 1994; Klatt, 1999; Kolb & Lewis, 1986; Lawson, 2000; Rogers, 1996). The process of active learning is thought to increase adult learners' motivation and engagement in the activities, as well as help to ensure that the material is retained in long-term rather than short-term memory. In fact, Rogers stated that "research and experience suggest that the more active the student-learners are, the more effective the learning process; the more passive they are, the less deep will be the learning." (p. 182). Adult learning theorists have also noted that motivation and learning increases when the learning gaps are manageable and connected to relevant experiences and outcomes (Burns & Gentry, 1998; Kolb & Lewis, 1986). Many instructors working with adult populations have attempted to meet this need by using a problem-solving approach that links the learning experiences to real-world situations so that the learners can practice applying skills that will be relevant to them in the future (Klatt, 1999; Kolb & Lewis, 1986; Taylor et al., 2000).

Another important principle of adult learning is that the adult participants bring a rich and varied base of previous real-life experiences to the learning environment (Klatt, 1999; Taylor et al., 2000). The instructors must always consider this when planning learning activities, as the activities should provide opportunities for the participants to integrate newly learned material with their previous experiences. Costa and Garmston (1994) reported that "the more meaningful, relevant, and complex the experience is, the more actively the brain attempts to integrate and assimilate it into its existing storehouse

of programs and structures” (p. 87). As with the previously discussed learning principles, the process of integrating previous experiences with new knowledge is thought to promote deeper learning (Taylor et al., 2000).

Lastly, Taylor, Marienau, and Fiddler (2000) emphasized the importance of giving adult learners the opportunity to reflect on their learning experiences. They believed that the reflection process was a critical component if adult learners were truly expected to integrate and apply the newly learned information to real world settings. Thus, by building time for reflection into the training experience, the possibility that deep learning would occur could be enhanced.

Relevant Limitations Regarding Adult Learning

There are also some specific limitations regarding adult learning that must be considered based on the purpose of this study. First, because of adults’ varied experience base entering any learning experience, the learning that occurs within a group of adults is often different for each person (Kolb & Lewis, 1986). This can increase the difficulties of measuring the true effectiveness of a training program. Second, most of the existing research on adult learning has investigated the learning experiences of individual adults rather than group learning (Tight, 2002). Since this study will be focusing more on the learning that takes place within a group of adults, the same learning principles may not apply.

General Considerations When Developing Training Programs for Working Professionals

There are many factors that must be considered when developing a training program for adult learners. Klatt (1999) reported that training programs for adult learners focus on helping the individuals learn, develop, integrate, and practice skills that can be

applied to real-life situations to improve their job effectiveness. The instructor should have a clear set of goals and objectives for the training experience that, when met, help ensure that the adult learners can successfully apply the learned skills within their job settings (Angelo & Cross, 1993; Klatt, 1999). The literature review below will first expand on some of the key strategies for developing trainings for working professionals. Given that the present study will use simulations extensively, a more detailed review of the development and use of simulation activities with adult learners will follow.

Strategies for Developing Training Programs for Working Professionals

Klatt (1999) provided many suggestions for developing effective trainings and workshops for working professionals. As with the previously reviewed literature on adult learning, Klatt emphasized that trainings for adults should involve many opportunities for active learning, provide a safe learning environment in which the participants could practice and build confidence in new skills, and leave ample time for feedback on the learning objectives. Klatt noted that there should be sufficient time to give feedback to participants as well as to receive feedback from participants regarding the training.

Initial steps in planning training programs for working professionals. Klatt (1999) outlined a few key steps that were considered critical to the development of a successful training program. He recommended that the training leader begin the process by clearly outlining the learning goals and objectives of the training. Next, the trainer needed to establish a contract with the client or sponsor of the training activity, such as a business, school system, or other organization. Klatt stated that the trainer should have a strong technical competence and experience base regarding the training material. Often these initial steps go hand-in-hand, as an experienced facilitator with a clearly outlined

training program is more likely to be approached and/or approved to conduct trainings for working professionals.

Klatt (1999) also emphasized that training facilitators should strongly consider co-leading trainings. Klatt felt that there were many benefits of co-led trainings, including a greater combined expertise on the subject matter, the ability to offer various perspectives, and more opportunities to provide help and feedback to the participants during learning activities. In addition, this researcher has noted that many of the simulation activities that will be discussed in the next section of this chapter flow more smoothly when multiple trainers help to lead the simulation and subsequent debriefing activities.

Strategies for opening training programs with working professionals. Training facilitators can use a number of strategies to help ensure a successful beginning to a training program. Klatt (1999) reported that the facilitators should provide a detailed agenda of the training activities and verbally review the purpose of the training as well as the learning goals and objectives. Recommended introductory activities included casual group conversations, welcoming statements, and brief introductions to establish group rapport (Klatt, 1999; Lawson, 2000). Klatt and Lawson both strongly believed that the trainer should use an activity as a “hook” to get the participants immediately invested in the training and engaged in the learning objectives. The hook activity should be highly interesting so the participants will want to learn more about the primary topic. Klatt felt that these types of activities set the tone for the rest of the training, and that the facilitator needed to carefully plan out these activities to ensure a successful start to the training. Klatt also warned that the training should not start with a “failure exercise”. This type of

exercise was considered to be any activity that created the likelihood of failure and thus hurt the participants' confidence in their skills.

Clearly defined learning outcomes. Klatt (1999) stressed the importance of having clearly defined learning outcomes for each of the training activities and/or sessions. Rogers (1996) agreed, noting that the goals and objectives for each training experience guided both the learning activities and how the participants' progress was measured. While both authors recommended identifying these learning outcomes ahead of time, they also stressed that the trainer needed to remain flexible and adapt the course objectives based on participant feedback, trainer observations, and ongoing evaluation.

Teaching approaches for training programs for working professionals. Various teaching approaches have already been discussed with regard to adult learning. These approaches have included the use of active learning techniques, respecting and building on the previous learning experiences of adults, giving the participants opportunities to practice and integrate learning in safe environments, and providing time for reflection. In addition to these key concepts, some specific teaching strategies have been noted that tend to be effective with adult learners.

For example, Rogers (1996) emphasized the need to reduce lectures with groups of adults, reporting that lectures were best used when introducing new material and summarizing complicated topics. Klatt (1999) highlighted the importance of presenting topics in fifteen to twenty minute bursts to maintain the attention and energy of the group. These shorter "sub-sessions" also built in natural breaks for reviewing and integrating the learning objectives and for frequently reflecting on the topics with the participants.

Klatt (1999) also pointed out the importance of using other techniques during training sessions such as visual aids, multi-media presentations, frequent participation from the learners, and anecdotes or stories that could be applied to their real-life situations. Klatt cautioned that adult learners must be given the choice of whether or not to participate in activities. Likewise, the training participants should be given an opportunity to have questions answered as needed, either during scheduled breaks or by using a “parking lot” format for questions and concerns. Time should also be allocated at the end of the training to do a more extensive review of what was learned and to evaluate the overall training experience.

Simulation Activities and Adult Learning

There have been many advocates for using simulations to enhance adult learning experiences. Zachert (1978a) was a strong proponent of using simulation activities with adult learners. Zachert stated, “In simulation study the learner is doing what he will be doing on the job, he is doing it in a situation that is as job-like as possible, and he knows that this is what he is doing” (p. 1). In fact, Zachert recommended that adult trainings should begin with a simulation activity so that the adults would be more accepting of both the theoretical and more conventional teaching methods to follow.

Palmer and Snyder (1986) stated that “learning through simulations, usually done as a group, is effective for learners of varying backgrounds, levels of experience, life stages, and value sets” (p. 16). Likewise, Hertel and Millis (2002) reported that simulations were appropriate for groups with various professional backgrounds, and that having these heterogeneous groups improved the learning experience. With group simulations, the participants had the opportunity to practice critical skills and could be

involved in problem-solving activities while collaborating with others (Adams, 1973; Hertel & Millis, 2002; Hoff & Adamowski, 1998; Pollack, 1973; van Ments, 1989; Zachert, 1978a). Because specific skills and objectives could be targeted, the simulation activities could also be used to identify the strengths and weaknesses of individuals and groups based on the specific skills being measured (Adams, 1973).

Within the literature on simulations, a variety of definitions and terms have been used to describe experiential learning activities, including simulations, games, simulation games, and role-plays. Gredler (1994) discussed the differences between these activities, and for the purposes of this study, the author will be using a similar set of definitions to those of Gredler. From this point forward, simulations will be considered to be any structured experiential learning activity completed by individuals or groups that attempts to model reality by providing a problem situation and allowing the participants to practice their problem solving skills by responding to the various tasks and information made available during the learning activity. Games and simulation games differ in that these activities include score keeping, winners and losers, and other aspects of competition that are not present in a simulation. In addition, Gredler reported that role-plays are typically shorter, less structured, less complex, and include less background information than simulations. Role-plays allow individuals or small groups to practice a discrete skill or set of skills that they have just learned, often with an observer, while simulations give participants the opportunity to apply and integrate more complex skill sets to solve problems they will face in a real-world situation.

Developing simulation activities. There are a number of steps that must be considered when beginning to develop a simulation activity. The first step is to clearly

define the situation that is to be simulated and specify the desired learning objectives (Evans, 1979; Hertel & Millis, 2002; Klatt, 1999; Lederman, 1992; Peters Vissers, & Heinje, 1998; Randel, Morris, Wetzel, & Whitehill, 1992; van Ments, 1989; Wood, Foster, & Hardy, 1997; Zachert, 1978b). To do this, the simulation designer must have a thorough understanding of the characteristics of the real-world situation that is being simulated (Peters et al., 1998).

Next, the simulation designer must determine the number of students who will be participating in the simulation and decide whether more than one group will be involved in completing the given scenario (Hertel & Millis, 2002). After completing this step, the designer should have a good idea of the possible roles that can be assigned as well as the relationships between participants (Evans, 1979; Gredler, 1994). Once the number and experience base of the participants has been identified, the simulation designer should have a better understanding of how easy or difficult to make the simulation.

After clearly identifying the goals and objectives for the simulation activity and considering the skills and learning needs of the simulation participants, the simulation designer can begin to develop the materials and resources that will be needed to conduct the simulation. This information should include a detailed, written explanation of the simulation background information or introduction, the step-by-step procedures, including the time expectations and any needed documents/materials, the inclusion of any impediments or distractors, and the feedback, if any, that will be given to the participants during the actual simulation based on their actions (Evans, 1979; Gredler, 1994; Hertel & Millis, 2002; Zachert, 1978b). Hertel and Millis (2002) warned that the scenario must be

developed so that the right information is provided in the right order with the right level of challenge based on the participants' background knowledge and skills.

Another critical aspect of the simulation design is the facilitator's guide (Gredler, 1994; Hertel & Millis, 2002). This document should provide step-by-step instructions outlining the simulation directions, materials, and timeline. In addition, this guide can outline the decision rules that the facilitator may have to use and can discuss procedures for debriefing and evaluating the simulation activity.

Improving the validity of simulations. Peters, Vissers, and Heinje (1998) outlined specific strategies for improving the validity of simulation activities. Likewise, Borodzicz (2004) discussed validity issues with crisis simulations. They all noted that the validity of a simulation increased as the situation being simulated accurately approached the "reality" of the real world situation serving as the model for the activity. Threats to validity tended to occur when the simulation designers attempted to reduce a real world situation to a manageable activity but left out less critical elements, made the simulation activities too abstract, leaving out necessary details, or changed the qualitative nature of the real-world situation. Peters et al. (1998) discussed strategies for improving the validity of the simulation by accounting for these factors. Specifically, they reported that the simulation designers should systematically develop the simulation by defining the learning objectives and then taking small, clear steps toward each of those objectives.

Peters et al. (1998) recommended that the developers should have other experts on the real-world topic being simulated review the simulation and then conduct focus groups or test runs on the simulation before implementing the activity as part of any training. They felt that the simulation designers could further test the validity of the

simulations by considering the psychological reality of the activity as well as the congruency between the simulation objectives and the real-world model with regard to the structure of the objectives and the process by which these learning objectives were presented. In addition, simulation designers could consider whether the potential outcomes of the simulation corresponded to similar real-world outcomes.

Other authors have discussed strategies for increasing the reality of the simulation experience, thereby improving the validity. Zachert (1978a) reported that the participants involved in the activity should have some understanding of the reality on which the activity had been based. If the simulation had been developed to closely model the participants' "reality", the participants would be more likely to take the activity seriously (Gredler, 1994). In addition, researchers noted that the simulation participants needed to clearly understand their simulation roles and should be expected to play roles as they would in a real-world situation (Gredler, 1994; Hertel & Millis, 2002). Other simulation design features that increased the validity of the activity involved how the flow of information and the simulation time elements were managed (Borodzicz, 2004; Gredler, 1994; Hertel & Millis, 2002; Zachert, 1978b). For example, simulations could be made "more real" by setting time limits, adding off-task interruptions, providing different information to the participants, and/or providing incomplete or inconsistent information that changed or was updated over time. Wood et al. (1997) felt that these techniques for controlling the flow of information and the time when information was given more accurately simulated a crisis situation and forced the participants to prioritize their decisions.

Facilitator's role during simulations. Various authors have discussed the facilitator's role during a simulation, with a great deal of agreement across authors regarding the facilitator's responsibilities (Hertel & Millis, 2002; Klatt, 1999; Zachert, 1978a). These responsibilities included explaining the directions, rules, and structure for the activity, outlining the tasks to be completed, playing various roles during the actual simulation, introducing new information and materials at appropriate times, and keeping the simulation on time and flowing. The teacher or facilitator was typically also responsible for leading the debriefing session following the simulation.

Debriefing activities following a simulation. A critical step in any simulation is the debriefing that occurs immediately following the activity. Even though the impact of debriefing following a simulation activity has not been systematically studied (Randel et al., 1992), most authors stressed the importance of completing a debriefing session for any experiential learning activity (Borodzicz, 2004; Gredler, 1994; Hertel & Millis, 2002; Lederman, 1992; Peters & Vissers, 2004; Petranek, Corey, & Black, 1992; Stewart, 1992; Thiagarajan, 1992; van Ments, 1989; Westwood, 1994; Zachert, 1978a). The debriefing period following the simulation was considered to be a key element in participant learning, as the session allowed participants to reflect on and integrate their learning experience with previous knowledge (Gredler, 1994; Hertel & Millis, 2002; Peters & Vissers, 2004; Petranek et al., 1992; Stewart, 1992; Thiagarajan, 1992). Another reason that debriefing was seen as a critical component of the simulation process was due to the anxiety-provoking nature of many simulations. The debriefing period was one method thought to be helpful in reducing this anxiety in a safe setting (Hertel & Millis, 2002; Peters & Vissers, 2004; Stewart, 1992). In fact, the American Psychological

Association's guidelines for research ethics require debriefing following any experiential-based learning activities, especially if the activities are anxiety provoking or involve deception (Peters & Vissers, 2004; Stewart, 1992). Due to these factors, Gredler (1994) argued that the "post-simulation activities should be planned as carefully and thoughtfully as the simulation itself" (p. 141).

The structure of the debriefing session is very important. A number of authors emphasized the importance of providing adequate time for debriefing (Gredler, 1994; Hertel & Millis, 2002; Steinwachs, 1992; van Ments, 1989), with recommendations regarding the time allotted for the debriefing session ranging from at least 25% as long as the simulation to as long as the actual simulation. To help differentiate the simulation from the debriefing, the facilitator could change the layout of the room or conduct the debriefing in a circle (Hertel & Millis, 2002; Steinwachs, 1992). The facilitator should have prepared questions and lead a guided discussion during the debriefing (Hertel & Millis, 2002; Steinwachs, 1992). Preferably, the debriefing would be done as a whole group, although the individual experiences of participants could also be recognized and discussed (Gredler, 1994). When multiple groups have completed the simulation simultaneously, additional learning may take place from having the groups discuss their differing experiences and provide feedback to each other (Klatt, 1999).

The debriefing session should include a review of the events that occurred and a discussion of the participants' reactions and emotions during the activity (Gredler, 1994; Hertel & Millis, 2002; Klatt, 1999; Lederman, 1992; Petranek et al., 1992; Steinwachs, 1992; Thiagarajan, 1992; van Ments, 1989), while also providing a link between the simulation experiences and future real-life generalizations and expectations (Gredler,

1994; Hertel & Millis, 2002; Klatt, 1999; Lederman, 1992; Peters & Vissers, 2004; Steinwachs, 1992; van Ments, 1989). If the participants were provided with different information during the simulation, these differences should be clarified and discussed so that the reasons for different responses are clear to everyone (Hertel & Millis, 2002). In addition, the participants should highlight any key lessons that were learned as a result of participating in the simulation (Hertel & Millis, 2002; Steinwachs, 1992; van Ments, 1989).

Research regarding the effectiveness of simulation activities. Westwood (1994) stated that simulations, when done correctly, “facilitate the development of the adult learner beyond what can be expected in either of the didactic or skills process approaches” (p. 101). Researchers and authors have documented some benefits of simulation-based learning activities for adult learners. Numerous authors have maintained that simulations can be used to teach and practice critical real-world problem-solving skills (Evans, 1979; Hendricks, 1985; Hertel & Millis, 2002; van Ments, 1989; Zachert, 1798a). Randel, Morris, Wetzel, and Whitehill (1992) completed one of the most comprehensive research reviews of simulation and gaming designs as compared to traditional teaching approaches, investigating 68 simulation studies that were conducted over a 28-year period. These studies were conducted across a range of ages and topics. While the authors noted that only some of these studies used truly empirical measures, they did find evidence favoring simulation approaches over conventional instruction in many cases. For example, Randel et al. found that over one third (37%) of the studies favored a simulation/game approach when indicators of student performance were measured. In comparison, only 5% of the studies demonstrated stronger student

performance for conventional instruction techniques. The remainder of the studies (56%) did not demonstrate differences favoring one approach over another.

Randel et al. (1992) also looked at a subset of these studies where the retention of information over time and student interest in the topic was measured. Fourteen studies were included in this subset. In ten of the fourteen studies, students participating in simulation activities demonstrated greater retention of information over time based on delayed posttest measures, with no differences noted between simulation and traditional approaches in the remaining four studies. Likewise, the participants reported more interest in simulation and gaming activities as compared to traditional teaching approaches in twelve out of fourteen studies. Similar research findings have been cited by others (Kolb & Lewis, 1986; Petranek et al., 1992). In fact, Kolb and Lewis (1986) stated that simulation learning “is at least as effective as other methods in facilitating subject matter learning and may be more effective aids to retention” (p. 104).

Gosen and Washbush (2004) conducted a more recent review of studies measuring the effectiveness of simulations as experiential learning activities in comparison to more traditional learning approaches (i.e., lecture formats). They concluded that while participants in simulation studies seemed to show greater learning outcomes, there was not enough evidence to clearly endorse this finding due to the less rigorous research designs employed and the overall lack of studies on the topic. In part, they believed that these limitations were due to the difficulties researchers face trying to truly measure learning as well as the time demands required to rigorously conduct these studies. Gosen and Washbush recommended that future studies include control groups and/or pre- and post-test designs to better solidify the research in the field.

Benefits of simulation activities. A number of benefits of simulations were discussed in the literature, although these benefits were not always clearly supported by rigorous research. The research on adult learning emphasized the importance of developing trainings that employed active learning techniques, were motivating to the participants, and provided time to practice and integrate learned skills. Authors in favor of using simulations reported that these activities typically emphasized experiential learning and were very motivating (Adams, 1973; Evans, 1979; Hertel & Millis, 2002; Klatt, 1999; Palmer & Snyder, 1986; Stewart, 1992; Thiagarajan, 1973; van Ments, 1989; Westwood, 1994; Zachert, 1978a, 1978b). In addition, simulations were thought to promote knowledge integration by giving the learners the opportunity to practice and transfer the skills to realistic situations (Adams, 1973; Hendricks, 1985; Hertel & Millis, 2002; Palmer & Snyder, 1986). Specifically, Hertel and Millis stated that “using education simulations weaves substance-specific information into real-life problems in meaningful ways that students can understand” (p. 1).

Additional benefits from simulation activities related to the training facilitator’s ability to control the simulation variables to allow the participants to practice specific skills and objectives. Because simulations were seen as models of real-world situations, the developers had the ability to remove extraneous variables and streamline the learning experience so that only specific skills were targeted for practice (Hertel & Millis, 2002). The facilitator also had complete control over time during the simulation, and could either compress time to “speed up” the learning activity or create time deadlines to increase the authenticity of the experience as time pressure forced the participants to prioritize their decisions (Hertel & Millis, 2002; Thiagarajan, 1973; Zachert, 1978b). In

addition, the simulation developers could lessen the complexity of real-world situations so that the training participants were not overwhelmed by the experience and were more willing to practice the identified skills (Peters et al., 1998). Thus, simulations could provide a structured, safe experiential learning environment where training participants could feel comfortable practicing new skills without needing to fear that individuals would be harmed, allowing them to take more learning risks (Gilliland & James, 1993; Hendricks, 1985; Hertel & Millis, 2002; Klatt, 1999; van Ments, 1989; Westwood, 1994).

The use of simulation activities in adult trainings can have other benefits, especially when the training topics involve rare or potentially risky situations (Klatt, 1999; Peters et al., 1998; Pollack, 1973). Specifically, Quanjel, Williams, and Talen (1998) recommended using simulations to help crisis responders gain skills, as they likely would not have many opportunities to practice and apply these skills at actual crisis events. Other researchers believed that simulations could be substituted for real-life situations that occurred rarely or were difficult to measure so that the simulation facilitator could draw conclusions about the participants' ability to apply the necessary skills in a real-life situation based on their performance during the simulation (Peters et al., 1998). By debriefing following the simulation activity, the participants could immediately see the impact of their decisions and could get detailed feedback on their performance that would hopefully enhance the effective application of the skills in real-world situations (Adams, 1973; Evans, 1979; Hertel & Millis, 2002; Klatt, 1999; Pollack, 1973; van Ments, 1989).

Limitations of simulation activities. While adult learners may benefit greatly from participating in simulations, the instructor developing and facilitating a simulation must

also consider the limitations of these types of activities. First, simulation activities can be very time consuming, both during development and implementation. Thus, time restraints and other resource limitations may impact the development and implementation of simulations (Klatt, 1999; Sancu, Day, Coffey, Patton, & Bowes, 2002; van Ments, 1989). Second, predicting and measuring the actual effects of the simulation on learning can be very difficult. For example, simulations of very complex or abstract concepts might lead to learning gaps and difficulties applying new or unfamiliar information, especially when the participants have varying degrees of background knowledge and experience about the topic (Thiagarajan, 1973). As a result of this limitation, Evans (1979) recommended that for certain topics simulation activities can not be taught in isolation but instead should be combined with other learning modalities. Other researchers noted that because simulations must be of a limited scope as compared to real world situations, the activities might end up being too far removed from or even distort reality (Adams, 1973; Pollack, 1973). Similarly, many real world situations, due to their complexity or uniqueness, are difficult to accurately simulate. Finally, due to the intensity of some simulations, participants might experience anxiety or have negative reactions to the experience (Klatt, 1999; Pollack, 1973). Therefore, all of these limitations must be considered during the development and implementation of any training including simulation activities.

Developing Crisis Preparation and Response Trainings

After considering key principles related to adult learning and the development of training programs for adults, the recommendations for developing crisis preparation and response trainings must also be reviewed. Numerous authors have highlighted the

importance of holding periodic trainings with school staff to build their crisis preparation and response skills and familiarize staff with school crisis plans (Brock & Poland, 2002; Brock et al., 2001; Caudle, 1994; Celotta, 1995; Croft, 2005; Decker, 1997; Hoff & Adamowski, 1998; Klicker, 2000; Kline et al., 1995; Klingman, 1988; McGlenn & Jimerson, 2004; Nader & Muni, 2002; Newgass & Schonfeld, 2000; Obiakor et al., 1997; Peterson et al., 1993; Quinn, 2002; Schonfeld, 1993; Trump, 2000, 2002; Waddell & Thomas, 1999; Zenere, 1998). There are many reasons why school personnel might benefit from these training opportunities. Nader and Muni (2002) noted that “a well-prepared staff can reduce the adverse effects of trauma” (p. 405). Other authors have also reported that preparation and training can reduce chaos and improve team functioning during a crisis (Brock et al., 2001; Celotta, 1995; Jimerson & Huff, 2002). Likewise, crisis team members, as well as all school personnel, need to have a strong foundation of basic intervention skills to successfully respond during crisis situations (Brock, 2002a; Brock et al., 2001; France, 2002; Pitcher & Poland, 1992). Eaves (2001) indicated that high quality training helped to overcome many of the obstacles faced when developing school-based crisis response teams. Often, school personnel who have expertise and experience with crisis preparation and response in school settings can lead these trainings (Brock et al., 2001; Eaves, 2001).

Frequency of Crisis Trainings for School Personnel

Researchers have not specified how frequently crisis trainings must occur to be effective. Instead, they have emphasized that crisis training should be ongoing so that new team members can learn the basic skills of crisis response and returning team members can maintain and practice their existing skills (Brock et al., 2001; Jimerson &

Huff, 2002; Kline et al., 1995). Based on this recommendation, crisis trainings should probably occur at least once per year so that new school personnel can learn and practice the crisis preparation and response procedures.

Recommended Teaching Strategies for Crisis Trainings

When developing crisis trainings for school personnel, certain teaching strategies may help to ensure that the critical skills are learned and that the participants are able to apply the skills effectively. Many of the recommended teaching strategies are consistent with the key principles of adult learning. For example, learning objectives should be clearly stated (Hoff & Adamowski, 1998) and activities should be planned that include the development of individual and group crisis response skills (Kline et al., 1995). Crisis trainings should be taught using a range of learning formats such as lectures, readings, role-plays, practice drills, and simulations (Allen & Ashbaker, 2004; Brock & Poland, 2002; Eaves, 2001; Hoff & Adamowski, 1998; Poland, 1994, 1998). The participants must also be given time to debrief these experiences so that they can receive feedback and further integrate the newly learned skills with their existing knowledge base (Poland, 1994).

Recommended Skills to be Covered During Crisis Trainings

There are many steps and skills that need to be covered to develop an effective crisis-training curriculum. In school settings, the trainers may not be able to teach all of the skills at one time, so a continuum of skill development activities will need to be considered. Likewise, the potential training participants, due to their varied roles and experiences within the school environment, will likely possess a wide range of existing skills prior to any training. Therefore, before beginning to plan and develop a

comprehensive crisis-training curriculum, the training facilitators should complete a needs assessment to accurately identify the skill gaps of their training participants (Brock et al., 2001; Petersen & Straub, 1992).

One of the critical learning objectives that must be covered as part of any crisis training is the school's crisis plan, which should include any school system policies and procedures for responding to a crisis (Brock et al., 2001; Klicker, 2000; Kline et al., 1995; Petersen & Straub, 1992; Poland, 1994; Purvis et al., 1991; Trump, 2000). In addition to knowing the proper procedures to take, the team members must also be trained on how to implement these procedures effectively. Poland (1994) gave many examples of procedural issues that must be covered as part of these training objectives, including the use of the phone tree and other communication procedures, methods for dispelling rumors, and considerations when assessing the impact of the crisis.

Crisis responders also need training on crisis theory and the nature of school crises (Brock et al., 2001; Hoff & Adamowski, 1998; Klicker, 2000; Lichtenstein et al., 1994; Newgass & Schonfeld, 2000; Poland, 1994; Weinberg, 1989). This aspect of the training should include information on how crises impact individuals, groups, and organizations and how different types of crises create various response needs. As part of this training, the trainers should also cover grief and trauma reactions from both a developmental and a cultural perspective (Brock et al., 2001; Hoff & Adamowski, 1998; Jimerson & Huff, 2002; Klicker, 2000; Kline et al., 1995; Lichtenstein et al., 1994; Meagher, 2002; Newgass & Schonfeld, 2000; Pfohl et al., 2002; Poland, 1994; Sandoval & Lewis, 2002; Weinberg, 1989). In addition, the school staff should be made aware of warning signs of high-risk behaviors so that individuals having difficulty managing their

grief can be properly identified and receive support (Brock et al., 2001; Purvis et al., 1991).

After learning about the nature of crisis and how students and staff react to crisis situations, the participants will need to be trained on how to effectively respond in these situations. Potential crisis responders should possess and practice good communication and consultation skills (Gilliland & James, 1993; Hoff & Adamowski, 1998; Pitcher & Poland, 1992). These responders will also need training on specific crisis intervention skills that can be used with individuals and groups (Brock et al., 2001; Hoff & Adamowski, 1998; Klicker, 2000; Meagher, 2002; Newgass & Schonfeld, 2000; Poland, 1994).

A final area of training mentioned by some authors emphasized the importance of self-awareness when working with grieving individuals (Kline et al., 1995; Meagher, 2002). Therefore, some training activities should explore the responders' individual crisis experiences and personal grief issues. Since crisis responders must be prepared to give emotional support during a crisis (Trump, 2000), these types of reflective learning activities should help the training participants identify their own strengths and needs before they are expected to take the role of crisis responders.

The Use of Simulations in Crisis Trainings

Numerous authors have supported using experiential learning activities during crisis trainings for school-based personnel. For example, experts in the field of school crisis prevention and intervention have discussed the importance of using crisis drills, role-play activities, scenarios, and crisis simulations during crisis team trainings (Brock et al., 2001; Decker, 1997; Guthrie, 1992; Hendricks, 1985; Kanel, 1999; Kline et al.,

1995; Klingman, 1988; Nader & Muni, 2002; Pagliocca & Nickerson, 2001; Poland, 1994, 1998; Purvis et al., 1991; Trump, 2000; Weinberg, 1989). Kline et al. (1995) noted, “The best preparation occurs under conditions that most closely approximate an actual crisis. Reading and discussing crisis intervention issues may help, but readiness is enhanced by talking through a simulation exercise, and through rehearsing a crisis drill” (p. 248). In addition to being used as skill building activities, these training techniques could be used to help identify gaps in crisis procedures (Brock et al., 2001; Pitcher & Poland, 1992; Trump, 2000) and test the team’s response readiness (Decker, 1997; Pitcher & Poland, 1992; Poland, 1994).

Klingman (1988) briefly described the use of crisis simulations in the training of school professionals. As part of a larger research study, Klingman used written crisis simulations as a training tool. The preliminary findings, while not rigorously researched, indicated that the educators who participated in a training using a crisis simulation activity reported more positive behavioral changes and better follow-up in day-to-day activities related to crisis prevention and response as compared to a group that covered similar skills using a guided lecture and discussion format. Klingman concluded that more research was needed to further investigate the effectiveness of using crisis simulations in the training and preparation of crisis responders.

Brock, Sandoval, and Lewis (2001) outlined a number of steps for developing a crisis drill or simulation to test the readiness of school-based crisis teams. The first step was to select and carefully develop a crisis scenario that was realistic to the school setting. Then, the crisis simulation developers could chose a format for the drill and announce that a drill was going to occur. The purpose of announcing the drill was to

allow the team to be ready to give their best effort, to allow the school to provide coverage for their crisis team members, and to arrange for observers at the school to monitor the team's progress. Brock et al. emphasized that all participants must be serious about the crisis drill for the activity to be effective. After running the crisis simulation with the school-based team, the crisis responders should have the opportunity to debrief the activity.

Other authors have discussed using crisis simulations as a training tool with large organizations, health care systems, and/or government agencies in order to practice and assess crisis preparedness and management skills (Boin, Kofman-Bos, & Overdijk, 2004; Borodzicz, 2004; Quanjel et al., 1998; Smith, 2004; Wood et al., 1997). Many of the benefits of using simulations discussed previously have been strongly supported by these authors with regard to organizational crisis simulations. For example, Smith (2004) stated:

Simulations provide organizations with the opportunity to engage in trial-and-error learning and therefore give managers the opportunity to learn within a safe environment in which they can be exposed to a range of crisis conditions and learn the limits of their own, and their organization's, capabilities. (p. 361)

Smith noted that simulations had commonly been used to help pilots and nuclear facility employees learn to better respond to potential crisis situations.

In addition, Smith (2004) reported that crisis simulations must challenge the problem-solving skills of the participants involved in the training. A crisis simulation must model the complexity of the real world so that the participants work through multiple, complex task demands. Smith has found that simulations can't completely

recreate the complexities of crises that occur in large organizations, but can provide an opportunity to experience “lessons learned” that may not otherwise be available until after a crisis has occurred. Likewise, Smith noted that the use of crisis simulations has proven to be a more effective and less costly method of learning about crisis response procedures than waiting for an actual crisis to occur. However, providing crisis trainings for large organizations and government agencies has proven to be difficult because of the uniqueness of crises and the different skill sets needed to respond.

Researchers who have discussed the effectiveness of using crisis simulations as training tools in large organizations have also highlighted the benefit of having the opportunity to practice communication skills during the simulation. Communication skills among crisis response teams are considered critical (Borodzicz, 2004; Smith, 2004). Simulations can give these responders the opportunity to practice these skills within a safe setting and may provide insight into ways that communication can be improved in an actual crisis situation.

Boin et al. (2004) made recommendations for developing effective crisis training simulations that were similar to the previously reviewed research on developing simulations in general. For example, they noted that good simulations modeled the detail and complexity of real-world crisis situations without being too rigid. They emphasized the need for open-ended simulations where the participants were able to influence the activity outcomes rather than using simulations that were very linear and did not change regardless of the decisions the participants made. Boin et al. also highlighted the importance of having detailed scripts and simulating some of the stressors of responding

to an actual crisis. At the same time, they saw crisis simulations as a safe learning environment in which to practice crisis skills.

Wood et al. (1997) reported many of the same benefits in using crisis simulations in the field of disaster management. Due to the rarity of actual large-scale disasters, disaster simulations were seen as a viable alternative for helping to practice and prepare crisis responders for these situations. They believed that participating in these simulations helped the responders build their experience base, improve problem-solving skills, and increase their coping abilities so that they would be better prepared when a real crisis occurred. The simulation activities had the added benefit of demonstrating any flaws in the crisis response plan while the skills were being practiced in a safe environment.

Barriers to Developing and Implementing Crisis Trainings

Many of the barriers impacting the development and implementation of crisis trainings exist for any new initiatives in a school environment. These concerns include not having the necessary time and resources to develop and implement crisis trainings, territorial power struggles over who is responsible for the trainings, and possible administrative resistance (Eaves, 2001; Kline et al., 1995; Poland, 1994). With many school personnel, there is also still the belief that responding to a crisis will only make the situation worse, leading to the tendency to ignore the crisis and crisis preparation activities (Eaves, 2001; Poland, 1994). Finally, some schools or school systems may choose to avoid crisis preparation and response training because of the concern that these activities draw negative attention to the school (Eaves, 2001).

Previous Crisis Trainings in the Researcher's School District

The district-level crisis team in the researcher's school district has been involved in systematic training activities over the past seven years. The district-level crisis team leadership group has led these trainings for the school-based and district-level crisis teams. The leadership group, which has been composed of nine to thirteen staff members during the last seven years, has including school psychologists, counselors, pupil personnel workers, and cluster nurses. During the last five years the leadership group has led two different types of trainings each year. One set of trainings has been conducted with the school-based crisis teams, comprised of administrators, Student Services staff, and teachers. These trainings have occurred twice per year and have been divided into separate trainings for elementary, middle, and high school teams. The other set of trainings has been given to the district-level crisis team members to help them maintain and improve their crisis response skills. The trainings for the district-level team members have also been given twice per year.

A wide variety of training objectives have been covered during this time span. A key component of the training has been differentiating the learning activities, as the trainings always included both new team members and previously trained members. Therefore, the fall trainings have included a review of basic crisis team procedures and supports to ensure that all new members have the same foundation of skills.

The trainings have also covered a variety of other topics related to crisis preparation and response. For example, student grief responses following a crisis have been reviewed in detail, including the basic principles of grief and trauma, developmental grief responses, extreme grief responses, and cultural factors impacting grief. Other

training objectives covered specific steps of crisis preparation and response, such as the nature of crises, assessing the degree of impact following a crisis, individual and group intervention strategies, and debriefing activities. Many of the teaching strategies used in these trainings have provided time for the participants to practice skills with other members of their teams during role-play and simulation activities.

The district-level crisis team trainings have also been held twice a year and have focused on more advanced crisis response skills, since these trainings are for the responders that are called in to support schools during especially difficult crisis periods. These crisis trainings have covered a variety of topics and have included sessions led by the cluster leadership group as well as guest speakers. These trainings were also developed so that the participants would have many opportunities to work with their team members practicing actual critical crisis response skills. The district's crisis team leadership group has also met quarterly throughout this period to plan trainings and debrief the crisis responses that occurred during the previous quarter.

Evaluating Adult Training Programs

Klatt (1999) stated, "To succeed and grow as a workshop leader you need to be self-aware and open to feedback. This means you must *evaluate*" (p. 121). Evaluation is a critical component of any training activity. Klatt explained that there were many different purposes for evaluating trainings, as well as many techniques that could be used to carry out the evaluations. Once the trainer decided what aspects of the training he or she needed evaluation data on (purpose of evaluation), the appropriate evaluation tool/s could be implemented.

Rogers (1996) also discussed how the purposes of the evaluation influence the method of evaluation by describing the differences between formative and summative evaluation. Formative evaluation techniques were described as methods that “looked forward”, or helped to plan for future learning, while summative evaluation techniques “looked backwards”, measuring the learning that had already taken place. Moran (1997) believed that both formative and summative techniques were needed to effectively assess learning and learning activities.

For the purposes of this study, the researcher considered both formative and summative evaluation techniques. The formative evaluation strategies were used to evaluate the effectiveness of the training program with the goal of improving the training curriculum. The summative evaluation methods were used to investigate the actual learning that took place among the training participants.

Formative Evaluation Techniques for Adult Trainings

Formative evaluation techniques, as mentioned previously, are often designed to look at ways to improve the teaching practices and/or curriculum for future trainings (Angelo & Cross, 1993). Authors have noted that the evaluation of the teaching process is critical and that formative measures can help to increase the quality of the teaching, identify and remove any barriers to learning, and assess the rate of participant learning so that the existing curriculum can be adapted to meet the learners’ needs (Moran, 1997; Oosterhof, 1999; Rogers; 1996). In fact, Rogers stated, “Evaluation will be effective only if we are prepared to alter or even scrap our existing programme when we detect something wrong and begin again” (p. 220). Likewise, Klatt (1999) believed that the trainer must solicit feedback throughout the training. Klatt (1999) provided examples of

numerous strategies that can be used throughout a training to conduct formative assessments. These strategies included the facilitator's observations of specific participant behaviors as well as a variety of scales and measures that could be completed by participants throughout the training sessions.

Formative evaluation data collected from facilitator observations of participant behaviors. Klatt (1999) specified a number of participant behaviors that could be evaluated by the training facilitator to provide information on the effectiveness of the teaching and the appropriateness of the learning objectives. For example, Klatt reported that the trainer could observe the engagement level of the learners by noting whether everyone participated during training sessions, asked questions, and followed through with task demands. In addition, by analyzing the types of questions participants asked, the training facilitator could further identify learning objectives and teaching strategies that were confusing or challenging. Finally, the facilitator could also carefully observe the development and application of the critical skills being taught via the training. By continuously reflecting on these observed behaviors, Klatt felt the training facilitator could improve his or her teaching as well as the design of the curriculum.

Formative evaluation data collected from participant feedback. Klatt (1999) provided a number of specific examples of data collection tools that could be used to collect feedback from participants throughout the training. Klatt recommended that these data tools be used during and after every training session to ensure that the facilitator received comprehensive feedback on the teaching and the training curriculum. Some of the most commonly used examples of these evaluation techniques included reaction measures and temperature checks. These measures can be used throughout the training to

investigate the feelings, attitudes, and interest levels of the participants. Klatt believed that the training facilitator should provide a level of structure to this type of feedback, and suggested using T-charts and critical incident evaluations to collect this data.

The T-chart design recommended by Klatt (1999) was very basic. The participants received a sheet of paper broken into two columns. In the first column, the participants were asked to identify aspects of the training that went well, while in the second column they were asked to report on what could have been done differently. The critical incident evaluation collected similar information in a question and answer format. The example provided by Klatt asked respondents to report on when they were most and least engaged in learning, when they were most and least interested, and what was most helpful, most confusing, and most surprising about the training session. Other examples of questions included the session highs and lows as well as suggestions for improvement.

Klatt (1999) also discussed less formal strategies for gathering participant feedback. He believed that the facilitator should have one-to-one conversations with the participants before the training sessions, during breaks, and after training sessions were over to get feedback. Klatt felt that these discussions were important in that the information was very timely and gave the facilitator a chance to make immediate adjustments to the curriculum.

Klatt (1999) emphasized the importance of collecting participant feedback at the end of the training. While there were a number of questions that have already been discussed that could be asked at this time, Klatt suggested that the end-of-training feedback include questions about the relevance and usefulness of the training, how confident the participants felt about their skills, and how challenging they found the

curriculum. By soliciting various types of formative participant feedback throughout the training sessions, Klatt believed that both the training and the skills of the trainer could be improved.

Summative Evaluation Techniques for Adult Trainings

There are a variety of summative evaluation techniques that can be used to measure participant learning. Within the literature on adult learning, these techniques were broken down into two key types of measures. The first group of measurement tools relied on the participants to rate, evaluate, or test their own learning. The second set of techniques assessed the learning of the participants by measuring their ability to apply the targeted skills during practice situations. Klatt (1999) suggested that the trainer use objective measures such as paper and pencil tests to assess gains in knowledge and use performance assessment techniques for measuring actual skill changes.

Summative evaluation techniques using measures completed by participants.

There are a variety of evaluation tools that can be completed by the training participants to measure their learning (Angelo & Cross, 1993; Klatt, 1999). For example, pre- and post-testing of the training objectives using paper and pencil tests can be used as one measure of learning across time. Klatt also recommended that follow-up post tests be completed a month or more after the training is over to measure whether the knowledge is retained. Quizzes during the training can be used to investigate specific topics as they are taught. Likewise, the participants can complete surveys and Likert-style rating scales after training so that they can rate their learning. Ideally, the participants would also be given the opportunity to complete evaluation data a few weeks after the training session was over to limit some of the possible immediate response bias.

Summative evaluation techniques using applied practice situations. Rogers (1996) stated, “The only fully satisfactory mode of assessment as to whether the learners are learning the right things and at the right level is the performance of the student participants after the end of each stage of the learning programme” (p. 230). Klatt (1999) reported that these types of evaluations tended to be a better way of measuring changes in actual skills than the previously discussed evaluation methods, as the ability of the learner to accurately apply the learning objectives to problem situations was the best measure that actual learning had occurred, and increased the likelihood that the learning would generalize from the classroom to the workplace environment. Within the classroom, these evaluation techniques can be utilized by measuring the participants’ performance during role plays, simulations, drills, and other activities that involve the integration and application of the course goals and objectives.

Sanci, Day, Coffey, Patton, and Bowes (2002) further discussed these types of evaluation strategies in their study using simulation activities to measure doctor effectiveness with patients. They stated that the evaluator should focus on measuring specific training outcomes, as participants frequently rate trainings highly even when deep learning did not take place. By using simulation methods to measure learner effectiveness, the researchers were able to measure whether or not the training participants were able to integrate and apply the training content effectively. Sanci et al. (2002) noted that “high competency has not always been found to be associated with high performance, however, low competency has been found to be associated with low performance” (p. 36). Thus, the development of evaluation strategies that help to demonstrate the competency of the learners applying the targeted skills are likely more

reliable measures of deep learning as compared to participants' ratings of the learning experience.

Peters and Vissers (2004) reported that researchers should use closed simulation designs with well-defined learning objectives and outcomes to train participants and assess their skills. Through the use of these types of designs, researchers can more clearly determine whether or not the participant met the specified learning outcomes. By using these types of closed designs in combination with the pre- and post-testing recommended by Gosen and Washbush (2004), the researchers should be able to more rigorously measure the participants' ability to apply the taught skills.

Limitations of collecting evaluation data during trainings. Klatt (1999) specified a few important limitations that might arise when collecting evaluation data during trainings. First, the training facilitator was asked to encourage the participants to give honest feedback, as there might be a tendency to rate the training more highly when the feedback was asked for immediately. Similarly, if the facilitator was well liked, the participants were considered more likely to rate the training highly, while if the facilitator was not well received, the training ratings would likely suffer. Therefore, the facilitator must ask for any evaluations of the curriculum in neutral terms by emphasizing that the goal of the feedback is to improve the curriculum for future trainings rather than as a rating of the facilitation skills of the training leader. Finally, Klatt (1999) noted that the evaluation of any changes in individual or group behaviors is limited by the difficulty assigning causality, as there may be many factors that have led to the observed changes.

General Recommendations for Evaluating Crisis Training Effectiveness

Just as there is little literature on the development of crisis training programs, there is even less literature on how these crisis training programs should be evaluated. Hoff and Adamowski (1998) gave suggestions for evaluating the effectiveness of crisis trainings by provided two specific strategies that could be used to test participant learning. First, they recommended using pre- and post-testing before and after the training to measure what new skills were acquired. In addition, Hoff and Adamowski stated that the training participants should be asked to evaluate their own experiences during the training. These two evaluation options, when combined, would help the trainer collect information on both the participants' perceived learning as well as their actually learning during the course of the training.

Brock and Poland (2002) discussed other aspects of crisis training in need of additional research. Specifically, they stated that more research was needed to determine whether staff development activities prepared crisis responders to respond effectively, and if so, which training activities improved their crisis response skills the most. Brock and Jimerson (2004b) agreed that the important elements of crisis preparedness should be systematically identified, but also said that more research was needed to determine if crisis preparedness training activities were even worth the time, effort, and cost.

Other authors have recommended evaluating the effectiveness of crisis drills and table-top simulations to determine whether or not these practice activities improve a school's crisis readiness (Brock & Poland, 2002; Pagliocca & Nickerson, 2001; Pagliocca et al., 2002). In fact, some authors were concerned that not only might these types of activities not demonstrate effectiveness, but that these techniques also might lead to

negative consequences such as scaring staff and/or not making school personnel take real crises seriously enough. Thus, all of these factors associated with crisis drill activities should be studied in more detail.

Previous Methods for Evaluating Crisis Training Effectiveness in the Researcher's School District

The district-level crisis team in the researcher's school district has evaluated the effectiveness of the various trainings offered to team members over a number of years using Likert-style rating scales completed by the training participants. The scales ranged from scores of one to five. A score of one corresponded to a rating of "not effective", while a score of five meant the training was rated as "very effective". In addition, the evaluation forms provided opportunities for the training participants to list pluses and wishes following the trainings.

Training data was available from the last three years of school-based crisis team trainings and the last two years of district-level crisis team trainings. As was previously mentioned, both the school-based teams and the district-level teams received training in the fall and spring each year. During the last three years the school-based team trainings have been very highly rated, receiving averaged ratings of 4.7 (fall, 2002), 4.6 (spring, 2003), 4.8 (fall, 2003), 4.4 (spring 2004), 4.5 (fall, 2004), and 4.9 (spring, 2005). Generally, anywhere from 30 to 80 people participate in a given training.

The district-level crisis team members have provided similar feedback following their trainings. Data was available from the last three district-level crisis team trainings. These trainings were also rated highly, and included averaged ratings of 4.96 (fall, 2003),

4.8 (spring, 2004), and 4.4 (spring, 2005). Typically, 20 to 40 district-level team members attend these trainings.

The open-ended feedback collected during these evaluations has typically been very positive as well. Generally, the participants have asked for more training in similar formats and additional time to work together as teams, specifically praising the benefit of practicing crisis planning and response skills using simulations. Participants have also consistently requested that all members of their school-based team be required to come to the training because they see the training as both beneficial and critical.

Summary

In summary, there are numerous factors that must be considered when developing and implementing a curriculum for training school-based professionals in crisis preparation and response. Many of these essential steps in preparing for and responding to crises in schools have been clearly identified in the literature, despite the fact that there has been little research-based evidence supporting the use of these strategies when responding to actual school crises. Likewise, there has been minimal research outlining effective curricular strategies for training school-based professionals to respond to crises. By carefully considering both the recommended strategies for responding to crises in schools and by developing a crisis-training curriculum based on current recommendations as well as the key principles for effective adult learning, this researcher hoped to create, implement, evaluate, and fine-tune a comprehensive crisis preparation and response curriculum that could be used to increase the crisis response capabilities of school-based professionals.

CHAPTER III

METHODOLOGY

The purpose of this study was to develop, deliver, and assess a comprehensive training curriculum for working professionals on the topic of school crisis prevention and intervention. The first key aspect of this study was the development of the crisis training curriculum used in the course. The second key component of the study was the implementation of the crisis curriculum. Specifically, the researcher obtained district and state permission to teach the course to working professionals for continuing professional development credit, and then implemented the crisis curriculum in his school district. The final goals of the research included improving the effectiveness of the curriculum based on participant feedback and demonstrating that the participants improved their ability to apply critical crisis prevention and intervention skills during simulated crisis situations. This chapter will describe the procedures that were used to develop the curriculum, select participants, implement the crisis course, evaluate and fine-tune the curriculum, and measure the learning of the training participants.

Development of the Crisis Preparation and Response Curriculum

A number of steps were taken to develop the crisis preparation and response curriculum. The researcher conducted an extensive review of relevant literature, examined training components and participant feedback from previous crisis trainings in his district, and piloted specific curriculum components. The steps taken to develop and implement the curriculum are delineated in Table 1.

Table 1:

Steps Taken During the Planning and Development of the Curriculum

Curriculum Planning/Development	Date Started
Review of literature regarding simulations	December 2004
Review of literature regarding crisis preparation/response	January 2005
Review of literature regarding adult learning	March 2005
Review of literature regarding trainings for working professionals	March 2005
Develop CPD class application and submit to State Dept. of Education	June 2005
Review of previous district crisis trainings	June 2005
CPD application approved by state Dept. of Education	July 2005
Develop course description for the district's Fall Professional Development Catalog	August 2005
CPD course registration begins – contact enrollees	September 2005
Develop curriculum for 1 st and 2 nd class	September 2005
Human subjects approval from University of MD and district	October 2005
Develop crisis simulations for class	October 2005
Pilot crisis simulations/rubrics	October 2005
Feedback on curriculum from crisis cluster leadership	October 2005
Develop curriculum for 3 rd through 7 th classes	October 2005
Crisis course begins	October 2005

Literature Review

The results of all aspects of the literature review, discussed below, are presented in Chapter II: Review of Literature. Various authors have highlighted the importance of increasing the rigor of qualitative studies by connecting the underlying assumptions and guiding principles of the research to the existing literature base (Liamputtong & Ezzy, 2005; Marshall & Rossman, 1989). The crisis prevention and intervention curriculum implemented for this study was developed using a variety of materials and resources, including a thorough review of the existing literature. First, the researcher systematically reviewed the literature on school-based crisis preparation, intervention, and response from the last twenty years. The researcher searched large literature databases such as ERIC, PsycINFO, and PsycABSTRACTS for possible books and/or journal articles on the topics of interest. A number of key words were used in these searches, both individually and in a variety of combinations. Some of the key words used during these searches included *crisis, school/s, school-based, crisis intervention, crisis preparation, crisis management, crisis response, grief, crisis counseling, school crises, crisis training, crisis prevention, adult learning, simulations, crisis simulations, experiential learning, and adult training*. The resources that were found via this literature search were then carefully reviewed to help determine the critical aspects of crisis preparation and intervention, adult learning, and training development that needed to be considered when developing the crisis-training curriculum.

Review of the Literature on Developing Crisis Trainings for School-based Professionals

A specific focus was given to articles and books that made recommendations for developing and implementing school-based crisis trainings. Unfortunately, there was

little research on this topic. In fact, very few authors outlined curriculum recommendations for comprehensive training programs. Instead, most of the authors tended to give one or two suggestions or strategies for what should be included in a crisis-training curriculum.

Review of the Literature on Crisis Preparation and Response Procedures

The researcher found much more available literature on the topics of crisis preparation and response. The researcher carefully reviewed this information so that the critical elements of school-based crisis preparation and response could be identified and included in the curriculum. As has been previously stated, there was a great deal of agreement across authors on the critical elements for crisis preparation and response in school settings despite the lack of research supporting these strategies.

Due to the general lack of comprehensive research on school-based crisis preparation and response procedures, the researcher gave careful consideration to the recent findings by Croft (2005), whose research was summarized in Chapter II: Literature Review. Based on a review of Croft's findings, the researcher in this study concluded that all of the highly recommended and recommended crisis intervention strategies from Croft's study had been included in the curriculum for the current study. Likewise, many of the other strategies that had frequently been discussed in the crisis intervention literature were included in the curriculum despite the lack of current research substantiating the effectiveness of these strategies. Just as importantly, the crisis intervention strategies that were not recommended by Croft due to their demonstrated lack of effectiveness were not included in the curriculum in this study. Therefore, the

researcher concluded that the curriculum developed and implemented in this study reflected the most recent comprehensive review of crisis intervention procedures.

Review of the Literature on Adult Learning and Developing Trainings for Adult Professionals

The researcher also investigated literature on adult learning and the development of adult trainings as part of the development of the curriculum in this study. From this literature, the researcher was able to identify key principles of adult learning that formed the basis for many of the experiential activities in the curriculum. Likewise, the literature on developing training programs for adults was used to help determine the strategies for organizing, implementing, and assessing the curriculum.

Review of the Literature on Simulations and the Development of Crisis Simulations

The researcher extensively reviewed the literature on simulations as part of this study. The use of simulations in this training was critical for a number of reasons, but most importantly because of the applied practice and assessment opportunities that the simulations provided. Based on the review of the literature and the researcher's own crisis response experiences, a number of real-time simulations were developed and included in the training curriculum. The researcher relied on his experiences as a crisis responder to help ensure that the topics and strategies used in the simulation activities were realistic and aligned with the purpose for the training. As part of the simulation development process, the researcher needed to create simulation activities that were intense and complex enough to potentially elicit participant responses across all of the sections of the scoring rubric. The researcher's range of crisis experiences helped him organize the scope and sequence of the training curriculum, especially with regard to the

simulations, in a meaningful and realistic way. Sanci et al. (2002) discussed the importance of using actual real-life situations to develop simulations, thereby improving the face and content validity of the simulation activities. Thus, the researcher's real-life crisis response experiences were critical in developing valid simulation activities for this training. The pre- and post-simulation activities are included in Appendices A and B respectively.

Review of Previous Crisis Trainings and Crisis Response Experiences

As a result of the researcher's role as a school psychologist and a district-level crisis team leader in his school system, the researcher had a wide range of experiences developing and implementing crisis trainings and responding to actual school crises. The researcher relied on these experiences, in addition to the literature review, to help identify and develop the training curriculum. For example, the researcher carefully reviewed previous trainings conducted in his school district as well as the response recommendations set forth in the district's crisis response guide. Because multiple brief trainings had been conducted with the school-based crisis teams and the district-level crisis team for the district, the researcher was able to review training topics and teaching strategies that had been used previously and consider the efficacy of including these approaches within the curriculum developed for this study.

Piloting the Curriculum Components and Simulations

Feedback on the Scope and Sequence of the Curriculum

The researcher took a number of steps to ensure that the crisis-training curriculum was both thorough and appropriate. Other members of the crisis leadership team in the researcher's school district reviewed the individual training sessions for content and

clarity. These reviewers were considered experts in the field of crisis preparation and response, as combined, they had thousands of hours of experience responding to school crises and developing and implementing trainings for crisis teams. The individuals reviewing the training particularly focused on the scope and sequence of the curriculum to ensure that the topics covered were comprehensive, followed a logical training sequence, and targeted the critical crisis intervention skills necessary to successfully manage a school crisis.

Overall, the feedback from the individuals who reviewed the curriculum was positive. They reported that the scope and sequence of the curriculum was appropriate and covered the necessary topics to prepare school-based personnel for crisis preparation and response procedures in the school district. These reviewers did make a few suggestions to improve the curriculum, including adding a section on being aware of personal grief issues and clarifying the directions for one of the brief simulation activities.

Piloting the Pre- and Post-Simulations

Due to the importance of the simulation activities as a learning experience and as an assessment tool (Hertel & Millis, 2002; Klatt, 1999; van Ments, 1989), the crisis simulations that were used as part of the curriculum were piloted before the crisis course began (Peters et al., 1998; van Ments, 1989; Zachert, 1978b). Peters et al. (1998) reported that certain piloting procedures reduced threats to validity in simulations, and these procedures were followed when developing the simulation activities used for this study. Initially, other district-level crisis team leaders reviewed the simulation activities. These team members had experience implementing, debriefing, and participating in

similar simulation activities at previous district crisis trainings. The team members reviewed the simulation activities to make certain that they followed a logical sequence, used realistic crisis scenarios, and included informational updates that were consistent with actual crisis responses.

The researcher then piloted the simulation activities to further ensure that they were clear, realistic, and targeted the desired outcomes. Specifically, the researcher conducted the simulations with school system staff members who were not enrolled in the course being offered. These staff members, some of whom were previously trained school-based crisis team members and others who had limited or no crisis training, participated in a simulation and then provided the researcher with specific feedback on the clarity of the directions, the sequence with which information was presented during the simulation, and the realism of the experience. A different group piloted each simulation. The researcher used this feedback to fine-tune the simulations before they were used in the actual training. Likewise, the researcher collected feedback from the crisis course participants following the simulation activities to identify ways in which the simulations could be improved for future trainings (Hertel & Millis, 2002; Thiagarajan, 1992).

Overall, the feedback the researcher received when the simulations were piloted was very positive. Both groups of participants reported that the directions and expectations were generally clear, with only a few recommended changes. Likewise, the participants stated that the simulation activities were very realistic and stressful. They noted that many of the simulation components included by the researcher to add a sense

of realism, such as limited time and informational updates, effectively met this intended purpose.

A number of changes were made to the simulations based on these piloting procedures. While the group who piloted the first simulation thought that the directions were generally clear, they did recommend changing a few of the words or phrases that had been confusing to them. For example, they suggested that the phrase “principal’s morning agenda” be changed to “topics to be covered by the principal during the morning staff meeting.” Additionally, they asked that the amount of time that they were given to work on the crisis preparation procedures be clarified. Specifically, they felt that the time updates written on the chalkboard should have told them how much time was left in the simulation as opposed to how long they had already been working. Finally, the participants in the first simulation felt that the researcher needed to place more emphasis on the importance of writing down all of the steps and strategies that were discussed, as sometimes they forgot to write down procedures they had decided to implement and needed to go back a few minutes later to write down what they had previously discussed.

Based on the feedback received during the piloting session for the first simulation, the researcher used the suggestions to fine-tune the second simulation before piloting the activity. When the second simulation was piloted, the participants did not recommend any changes. They reported that the directions were clear, that they understood the tasks that they needed to complete, and that they were aware of how much time was left in the simulation activity. Therefore, the changes recommended during the piloting of the first simulation appeared to be effective, as the participants who piloted the second simulation did not raise concerns about any of the simulation activities and expectations.

Implementation of the Crisis Preparation and Response Curriculum

Participant Characteristics

The sample used in this study included twelve public education professionals enrolled in a continuing professional development course on comprehensive school-based crisis prevention and intervention. The course was listed in the school district's Fall Professional Development Catalog and was open to Student Services staff members, teachers, administrators, and central office staff members interested in taking the course. The twelve professionals who registered for and took the course include four school psychologists, one school psychology graduate-level intern, three school counselors, one high school special education teacher, one elementary school regular education teacher, a home and hospital teacher, and a parent liaison. Of these twelve participants, ten were Caucasian and two were African-American. The sample included eleven females and one male.

The participants in the course had a wide assortment of experiences in school settings. Their various levels of experience as school-based educational professionals ranged from a participant completing an initial internship to an individual with over fifteen years of teaching experience. Similarly, the previous crisis training experiences of the individuals in the sample were mixed. Four of the participants had no previous training in school-based crisis preparation and response, while the other eight participants had received limited crisis training prior to taking this course. Five of the participants indicated that they had received some crisis response training as part of their graduate school curriculum, but noted that this training was not comprehensive and had usually only been covered in one or a few sessions of a larger course. Five of the school-based

professionals in the course had participated in other brief crisis trainings in the district as members of their school-based teams. Finally, eight of the twelve course participants reported that they had experienced a previous crisis or crises at their schools, and seven of these individuals said that they had been involved in supporting the school community in some manner during these crises.

Participant Recruitment

The participants were recruited for the course in two ways. First, the training program was advertised in the district's Fall Professional Development Catalog. The training was described in the catalog and participants signed up for the course through the Human Resources office. The course was submitted to and approved by the district's state Department of Education as a professional development class, so the participants received one Continuing Professional Development (CPD) credit for completing the fifteen-hour training. The course required a minimum of eight enrollees, with a maximum of sixteen seats available for the class.

The training participants were also recruited via an e-mailed description of the course. Specifically, each of the Student Services facilitators for the school district were asked to forward a description of the training program to their staff members. An emphasis was placed on ensuring that all of the new Student Services staff members were aware of the course. This e-mail was sent to the personnel in the various Student Services departments, which included school psychologists, school counselors, pupil personnel workers, health care personnel (cluster nurses and health assistants), family support services, home and hospital teachers, and the staff from the black student achievement program.

The researcher discussed the course requirements with each of the participants before or shortly after they registered for the class. This step was taken for a number of reasons. First, the researcher wanted to ensure that the participants clearly understood the purpose and teaching objectives for the course. Second, the researcher needed to explain the assessment procedures that would be conducted throughout the course as a result of this study. Each of the course participants reported that they understood and were willing to participate in the various assessment procedures. All of the participants also read and signed an informed consent form outlining their participation in the research portion of the class during the first class session.

Setting for Training

Background on the School District

The training described in this study was implemented in a large suburban school system located in the mid-Atlantic region. Over 45,000 students were enrolled in the school system's schools during the 2005-06 school year. A diverse mix of students attended school in the district during that time, as 61% of the students were White, 20% were African American, 13% were Asian, and 4% were Hispanic. The school system has maintained an excellent academic reputation throughout the state, with the district's students consistently earning outstanding scores on state assessments. Historically, a large majority of the students have opted to continue their formal education after graduating from high school.

Crisis Response in the School District

The school district's crisis response model. The district's crisis response model has evolved over time. The initial district-level crisis response team model was

developed in the early 1990s. This district-level crisis team was made up of selected Student Services personnel from throughout the county. The members of this team, in addition to their regular school duties, were called upon to help with crisis responses as crisis events occurred throughout the county. The responders were divided into various clusters based on geographic regions throughout the county to increase the likelihood that the crisis responders would lend a familiar presence at neighboring schools and to ensure that crisis supports could be accessed in a timely manner. In the mid 1990s, the leaders of the district-level crisis team began offering yearly trainings and developed other resources for the crisis team members to use to improve their individual and group skill levels.

The philosophy regarding crisis response procedures, as well as the crisis response model being used in the school district, shifted slightly during the 2001-02 school year. First, a comprehensive manual was developed to help the members of the school community deal with crises in their schools. This manual has continued to be used as a resource during crisis responses and team trainings through the most recent school year. The manual and procedures were revised in 2004. The second philosophical shift that occurred during the 2001-02 school year was that an emphasis was placed on developing school-based crisis response teams at each school in the district. At that time, the school system began using a two-tiered model for crisis responses. The school-based team members were expected to be the primary responders for any crises at their schools. The district-level crisis team also remained in place, with these more highly trained team members taking on the role of secondary responders for larger crises and consultants for smaller crises that did not require a response outside of the school-based team.

To further support the development of this two-tiered model of crisis response, the district's crisis leadership group began offering differentiated trainings for school-based crisis response teams and the district crisis team each school year beginning in the 2001-02 school year. A description of the frequency, content, and outcome data from these various trainings can be found in Chapter II: Literature Review. An emphasis was placed on developing a consistent base of crisis response skills across both individuals and teams throughout the county. Additional trainings were offered twice a year for the district team members, and these trainings typically covered more advanced topics in crisis preparation and response.

Recent crisis history of the school district. The school system where the training took place has experienced numerous events requiring crisis responses in the district's schools over the last decade. As has likely been the case with many large suburban school districts over a similar time period, school communities in the district have experienced deaths of students, staff members, and community members (i.e., parents, siblings) as a result of accidents, long-term illnesses, homicides, and suicides. Since adapting a multi-tier crisis response model, the district-level crisis team has responded directly to 8-10 crises per year and provided consultative services to school-based teams for an additional 10-20 crises. School-based teams have also responded to some crisis situations completely independently, with no direct or indirect support from the district-level crisis team.

While all crises have an impact on members of the school community and each school crisis brings its own challenges, the district has experienced some major crises impacting entire school communities and/or multiple school communities within the

district. Although this should not be considered an exhaustive list, some of these major crises have included the murder of one current student by another current student in a school, the murder of a student that was witnessed by other students, the death of a staff member in the building during the school day, accidental deaths of students witnessed by friends and classmates, and the death of one student and serious injury of other students on the way to a school-wide event. These crises impacted the various school communities for many days and weeks due to a variety of factors, including the unexpected, sudden, and/or violent nature of the deaths, often with witnesses present.

In addition to these individual crisis events, a number of school communities in the district have lived through multiple significant crises in a short period of time. These multiple crises occurring in fairly quick succession have increased the intensity of the reactions and needs within the impacted school communities as well as the magnitude of the response required. For example, one high school experienced the deaths of five current or former students over a five-year period, while a second high school community had five students in the school's feeder system die in a four-year period. A third high school had two students murdered approximately one year apart. Likewise, every school in the district provided supports for their staff and students during the terrorist attacks on September 11, 2001 and other regional crisis events. These larger scale responses demonstrated the importance of having a multi-tier model of crisis response in the county, as district level supports were needed for major and/or multiple crises in a school community, while school-based crisis response teams were required in crisis situations that impacted all of the district's schools simultaneously.

Implementing the Course Curriculum

The course curriculum was implemented as a fifteen-hour course taught over seven sessions. The sessions met once a week for seven weeks. The first six sessions were 2 hours, 15 minutes long. The participants filled out a critical incident questionnaire following each of these sessions. The seventh session lasted for 90 minutes. This session was immediately followed by the 60-70 minute focus groups. A detailed curriculum guide outlining the scope and sequence of the curriculum can be found in Appendix C.

The class participants all gave their informed consent before participating in the research aspects of the course. During the first class, the participants were asked to read the informed consent form and had the opportunity to ask any questions. The researcher repeatedly emphasized that the participants could choose to not participate in any of the research components or stop participating in the research components at any time without any penalties. Specifically, they were told that they could still take and receive Continuing Professional Development (CPD) credit for the course without participating in the research components. All twelve participants signed the informed consent form and participated in the research-based data collection procedures throughout the course.

Implementing the Pre- and Post-Simulations

A detailed discussion of the use of simulation activities as learning experiences and assessment tools can be found in Chapter II: Literature Review. A variety of steps were taken to develop and implement realistic simulations. The procedures for conducting the simulations were written and piloted ahead of time to help ensure that the procedures were clear and were consistently followed across groups and times. Once

these procedures for running the simulations were piloted, the following steps were taken to implement the simulations. First, a general description of the purpose and procedures for the simulation was read to the participants. The participants were then asked if they had any questions. Once any questions were answered, the participants were given a scenario sheet providing them with the background information for the simulation and outlining their roles and responsibilities as the responders. Specifically, they were told that as the group planning the response to the simulated crisis, they were expected to identify the procedures/strategies needed to respond at the school that day, write any statements needed to start the school day, and prepare an agenda for the principal outlining all of the key topics to be covered at a morning staff meeting. The groups were given sheets of papers with these headings (e.g., principal's agenda for morning staff meeting) on which to record their information.

The researcher and co-teacher explained that the participants were being asked to write the specific steps that they would take for two reasons. First, the district's crisis team leaders have found that school teams that write down the actual steps that they will take during a crisis have been more likely to complete those steps throughout the day as compared to teams that talk about the critical steps but do not write down what these steps are or who will complete each one. Second, the participants were told that their written responses would be used for the scoring rubric, and that the researcher needed them to write down each key item they discussed or developed so that these items could later be scored using the rubric.

After ensuring that the participants did not have further questions about their task requirements, the simulation began. The participants were told that they had 45 minutes

until the morning staff meeting and needed to identify all of the necessary steps by that time. To better simulate a real school crisis, additional information was provided during the 45 minute time period to update the crisis information and add distractions. When new information was provided, the facilitators recorded the remaining time for the activity on a board in the classroom so that the participants could see how much time remained to finish planning their response. The facilitators debriefed the simulated crisis activity with the participants following each simulation.

Evaluation of the Crisis Preparation and Response Curriculum

The training curriculum was evaluated using a variety of techniques. Data for this evaluation was collected through the researcher's field notes, the critical incident questionnaires completed by the course participants following each training session, the district's professional development feedback form, and the two focus groups conducted with the course participants following the completion of the course. Many researchers stressed the importance of collecting multiple sources of data through multiple methods of data collection in qualitative studies to triangulate the data points and thus improve the validity and reliability of the information collected (Banister, Burman, Parker, Taylor, & Tindall, 1994; Borg & Gall, 1989; Liamputtong & Ezzy, 2005; Marshall & Rossman, 1989; Morgan, 1998a; Munby, Lock, Hutchinson, Whitehead, & Martin, 1999). Denzin and Lincoln (1998) also believed that triangulation was critical, but took a slightly different stance, stating, "Triangulation is not a tool or a strategy of validation, but an alternative to validation . . . as a strategy that adds rigor, breadth, and depth to any investigation" (p. 4). The evaluation techniques used to assess the curriculum and teaching strategies are included in Table 2. The data coding techniques used to identify

patterns and themes within and across the participants' responses on the various data collection tools will be described in detail at the end of this section.

Table 2:

Methods Used to Assess the Curriculum and Teaching Strategies

Assessment Method	When Collected	Data Source
Field notes	After each class session	Researcher
Critical incident questionnaires	After each of the first six class sessions	Participants
Focus groups	After last class session	Participants
District's professional development feedback form	After last class session	Participants

Field Notes

The researcher took detailed field notes throughout the implementation of the crisis-training curriculum. Field notes have long been seen as a critical data collection tool in qualitative research involving the observation of participants (Bogdewic, 1999; Jorgensen, 1989; Liamputtong & Ezzy, 2005; Marshall & Rossman, 1989; Mason, 1996; Miller, Hengst, & Wang, 2003). The following procedures were used to record the field notes. All of the field notes were recorded on an observation sheet that specified the date, time, and place of the training, as well as the activities conducted during the training that day (Bogdewic, 1999; Jorgensen, 1989). The researcher completed the field notes immediately or soon after the training session had ended so that critical information and observations were not forgotten (Bogdewic, 1999; Jorgensen, 1989; Liamputtong &

Ezzy, 2005). The field notes were divided into two columns. The main column included the researcher's descriptions of what was observed during the training session, while the second column provided a space for the researcher to record his perceptions, feelings, and interpretations regarding these observations (Bogdewic, 1999; Jorgensen, 1989; Liamputtong & Ezzy, 2005; Marshall & Rossman, 1989; Miller et al., 2003). These reflections focused on how the session could be improved for future trainings. In addition, the researcher recorded any informal feedback received from the participants via discussions during breaks and before or after each session (Klatt, 1999). A copy of the field notes log can be found in Appendix D.

The field notes were used to improve the crisis-training curriculum in two ways. First, the researcher reviewed the notes to determine any key changes that could be made in either the curricular content or the teaching techniques used to implement the curriculum to improve the course content and delivery. Then, the researcher coded the data from the field notes using a variation of the cut-and-paste data coding method described by Stewart and Shamdasani (1990). These coded observations were then compared to the coded responses from the other data collection tools to look for patterns and/or themes that could be used to further improve the curriculum content and implementation.

Critical Incident Questionnaires

The researcher collected participant feedback on the course curriculum following each training session using critical incident questioning techniques (Klatt, 1999). Other authors and researchers have described similar versions of this type of data collection tool (Angelo & Cross, 1993; Millis & Cottell, 1998; Moran, 1997). The purpose of the

critical incident questionnaires was to identify the strengths and weaknesses of the curriculum content and delivery. The critical incident items included questions about the most and least interesting content in the day's session, what topic or topics were most helpful, what part of the training was most confusing or "muddiest", what was most surprising, and what teaching techniques and strategies were most and least effective for learning and practicing the content. The researcher used this feedback to improve the course from session to session (i.e., adding a parking lot for questions after session one) and to evaluate and improve the curriculum content via the method described in the data coding section of this chapter. A copy of the critical incident questionnaire can be found in Appendix E.

School District's Professional Development Feedback Form

This measure was a questionnaire that has been used following many of the professional development activities conducted in the school district where the crisis curriculum was implemented. The questionnaire included open-ended and Likert-style items on a variety of topics related to the participants' experiences and attitudes regarding the course, including the course content, the skill level of the instructors, and the usefulness of the coursework for their day-to-day job performance. This evaluation tool can be found in Appendix F.

Focus Groups

The researcher used data from two focus groups held at the end of the crisis course to further investigate strategies for improving the curriculum content and delivery. The two focus groups were conducted immediately following the last class. All twelve of the course participants actively took part in the focus groups, with six course members in

each focus group. The twelve course participants were divided into two separate focus groups to ensure that they all had ample opportunity to participate. Each focus group was scheduled to last for 60 minutes, and in reality lasted for 60-70 minutes.

Use of Focus Groups for Data Collection

Often, focus groups are preferred over questionnaires because of the depth and detail of the responses provided (Bader & Rossi, 1998; Hendershott & Wright, 1993; Jayanthi & Nelson, 2002; Liamputtong & Ezzy, 2005; Morgan, 1998b; Panyan, Hillman, & Liggett, 1997). The group interactions during a focus group are also thought to increase the number of ideas and opinions that are shared (Panyan et al., 1997).

Liamputtong and Ezzy (2005) noted that focus groups “are particularly useful when a researcher wishes to explore people’s knowledge and experiences” (p. 78).

There is a substantial research base supporting the use of focus groups for reviewing and improving adult training programs. Focus groups have been recommended as a technique for collecting feedback on the content and delivery of curriculum in a variety of training fields (Feather, 2001; Millis & Cottell, 1998). For example, researchers have used focus group methodologies similar to the one being used in this study to evaluate and restructure curricular practices in teacher education programs (Munby, et al., 1999; Panyan, et al., 1997), other college courses (Hendershott & Wright, 1993), and intensive training programs for drug counselors (Tsiboukli & Wolff, 2003). As was the case in this research, these other authors described focus groups that were conducted using class participants who had recently finished a shared training experience. One of the key purposes for administering focus group interviews in each of these studies (Feather, 2001; Hendershott & Wright, 1993; Munby et al., 1999; Panyan et al., 1997;

Tsiboukli & Wolff, 2003) was to get feedback from the course participants regarding their perceptions of the course curriculum, recommendations for improving or changing the course, and in-depth, detailed reflections on specific teaching strategies and techniques that were used during their training experience.

Stewart and Shamdasani (1990) provided further rationale for using a focus group methodology with training participants. Stewart and Shamdasani viewed a focus group as a group of people who shared some common interest area and agreed to be led by a moderator in an in-depth discussion of focused topics, usually related to this common area of interest. They found focus groups to be a valuable tool for investigating how a program worked, noting that a researcher could have people who knew each other participate in a focus group together as long as their participation was for a purpose that was consistent with the goals of the research. In fact, Stewart and Shamdasani stated that there were certain benefits to running focus groups with people who had shared a positive common experience. These potential benefits included good group cohesion, more support for the goals of the focus group, and more comfort interacting with fellow group members. All of these factors were thought to improve the buy-in of the focus group participants.

A review of Stewart and Shamdasani's (1990) discussion of various group experiences provided further support for the use of focus groups in this study. Specifically, the methodology used in this study most closely matched their description of focus groups. The other group data collection experiences described by Stewart and Shamdasani did not use a methodology comparable to the one used in this research. Examples of these other group techniques discussed briefly by the authors included

nominal group techniques, the Delphi technique, brainstorming, synthetics, and leaderless group discussions.

Considerations in Developing the Focus Group Structure for this Research

Group size. Various authors have commented on the appropriate number of participants for focus groups (Bader & Rossi, 1998; Brown, 1999; Feather, 2001; Jayanthi & Nelson, 2002; Liamputtong & Ezzy, 2005; Morgan, 1998a; Stewart & Shamdasani, 1990; Templeton, 1994). Generally, these authors have recommended that focus groups provide the richest discussions and most opportunities for participation when the groups include between six to twelve members. Focus group outcomes may differ based on the size of the group. Typically, with smaller focus groups, the individual participants each have a greater opportunity to participate and share in-depth opinions of the topics being discussed. In comparison, members of larger focus groups may be less impacted by group conformity due to the greater diversity in opinions and personal experiences. Morgan (1998a) reported that focus groups with less than six members could be conducted, but noted that this put more of a burden on these members to participate at a high level throughout the group.

Number of focus groups. Morgan (1998a) believed that researchers should generally conduct from three to five focus groups to collect a range of opinions and data. However, he did note that there were situations when less than three focus groups were appropriate. For example, Morgan felt that less than three focus groups could be used when the participants were not providing diverse or varied responses. Likewise, when all of the focus group participants were discussing a shared experience, such as with this crisis course, there might be less need for multiple groups. Morgan warned that there are

certain limitations to running only one focus group and stated that the researcher must be cautious when interpreting data from only one group. If this situation was to occur, Morgan recommended that the researcher collect additional information from other sources to triangulate the data. Stewart and Shamdasani (1990) discussed similar limitations of focus groups, noting that each focus group was equivalent to one observation or data source, and that focus group responses should be interpreted within the context of other data. Based on these recommendations, the researcher divided the class into two groups of six to give everyone the opportunity to participate and to collect a wider depth and breadth of responses.

Focus group facilitators. A skilled facilitator/moderator often is needed to run a focus group effectively (Bader & Rossi, 1998; Brown, 1999; Feather, 2001; Krueger, 1998b; Liamputtong & Ezzy, 2005; Panyan et al., 1997; Templeton, 1994). Munby et al. (1999) suggested using a neutral focus group facilitator when collecting information on curricular issues. Templeton (1994) recommended using a moderator with an advanced degree in psychology or a related field, to ensure that the individual had a comfort level with feelings and emotions and effectively used communication skills during group discussions. Given the purpose of this study, the researcher employed two neutral facilitators with advanced degrees in school psychology to moderate the focus groups in this study. Both facilitators were school psychologists and experienced members of the school district's crisis intervention team. One of the facilitators also had previous experience leading focus groups on the topic of crisis intervention. Strategies for limiting participant conformity were discussed with the facilitators. These strategies included

requesting and valuing differing viewpoints and ensuring that all of the focus group members were given a chance to participate in the discussion (Morgan, 1998b).

Preparing the focus group questions and focus group guide. The first and most important step in preparing for the focus groups was to clearly define the purpose for the activity (Bader & Rossi, 1998; Feather, 2001; Morgan, 1998a, 1998b). This purpose statement guided the development of the focus group questions and script. For this study, the purpose of the focus groups was to evaluate and improve the crisis training curriculum content and teaching strategies.

The researcher developed the focus group questions and guide using a semi-structured funnel approach based on the research questions in this study. Following recommendations made by Krueger (1998a) and Feather (2001), the questions were short, clear, and understandable, and moved from general to more specific inquiries. The facilitator asked single questions and then waited for a response. The questions were worded in an open-ended manner so that the participants would provide more detail. The focus group guide and questions can be found in Appendix G.

Facilitating the focus groups. Various authors have provided input on how to run a focus group (Brown, 1999; Jayanthi & Nelson, 2002; Krueger, 1998b; Millis & Cottell, 1998; Morgan, 1998a, 1998b). These recommendations were used to develop the focus group script for this study. The following steps were included in the script. In each group, the focus group facilitator began by thanking the participants for their participation. After introductions were made, the purpose of the focus group was discussed. The facilitator then outlined the participants' roles in the process and reminded the participants that their responses would be anonymous. The facilitator

emphasized that there were no right or wrong answers and highlighted the importance of providing truthful responses so that the curriculum could be improved for future trainings. After reviewing the ground rules, the facilitator asked the questions listed on the prepared focus group guide. These questions were asked directly as they appeared on the guide to increase the efficiency and consistency of the focus groups. After all of the questions were asked, the facilitator concluded the focus group, again thanking the participants.

Piloting the focus group guide and questions. The focus group guide and questions were piloted ahead of time to increase the validity and clarity of the procedures and questions (Jayanthi & Nelson, 2002; Krueger, 1998a). The researcher first reviewed the guide and questions with the other lead trainer for the course and the focus group facilitators. The goal of this review process was to make sure the questions were clearly stated and directly pertained to the research objectives. The researcher then completed a similar review with school staff members who had previous crisis training experience but were not enrolled in the course that was developed for this study.

Collecting and Coding Focus Group Responses

For the purposes of this study, the focus groups were audio taped and videotaped. The videotapes were used to transcribe the focus group responses, with the audiotapes serving as a backup in case the videotaped content was unclear or the video camera did not work correctly. This decision was consistent with the focus group literature, which discussed two possible techniques for collecting focus group responses. Some authors have advocated for having an additional moderator present to take notes during the discussions (Jayanthi & Nelson, 2002; Krueger, 1998b; Liamputtong & Ezzy, 2005).

Most authors have reported that focus group discussions should be audio taped and/or videotaped (Brown, 1999; Jayanthi & Nelson, 2002; Krueger, 1998b; Liamputtong & Ezzy, 2005; Millis & Cottell, 1998; Morgan, 1998b; Munby et al., 1999; Panyan et al., 1997; Stewart & Shamdasani, 1990; Templeton, 1994).

After the focus groups were completed, the videotaped discussions were converted to transcripts (Brown, 1999; Morgan, 1998b). The transcribed responses were then coded to systematically analyze the findings and look for themes or categories among the responses (Feather, 2001; Jayanthi & Nelson, 2002; Panyan et al., 1997). The data coding technique used to explore the focus group responses, as well as the responses collected from the other data collection tools discussed previously, is described below.

Data Coding Techniques Used During the Evaluation of the Curriculum

The information from the researcher's field notes, the critical incident questionnaire responses, the professional development feedback forms, and the focus group transcripts was recorded and/or transcribed prior to coding. The data was then coded using a variation of a cut-and-paste technique described in detail by Stewart and Shamdasani (1990). The researcher has successfully used this data coding technique in the past to organize and identify important themes in large amounts of qualitative data (Ridgely, 1999).

Following the general method described by Stewart and Shamdasani (1990), each key research question identified by the researcher was written at the top of a legal pad. As the researcher reviewed the transcripts and recorded notes, he attempted to identify key responses that could be used to answer each research question. Each research question was assigned a different color, and the responses corresponding to the research

questions were coded using a highlighter of that color. The researcher reviewed the field notes, critical incident questionnaire responses, professional development feedback forms, and focus group transcripts multiple times to ensure that all of the research questions were considered. In addition, the researcher noted any key observations, comments, and recommendations that were not directly addressed by the research questions but still pertained to the improvement of the curriculum content and delivery.

After reviewing and color-coding the field notes, critical incident questionnaire responses, professional development feedback forms, and focus group/s transcripts in isolation, the researcher grouped these responses on the appropriate legal pads for each research question. The researcher reviewed the data multiple times to ensure that all of the data sources were accurately summarized on the legal pads. The coded responses were then further grouped by themes within each research question to serve as a guide for refining the crisis-training curriculum.

Evaluation of Participant Learning

The participant learning during the training was measured in a number of ways. These methods are outlined in Table 3. Specifically, pre- and post-training simulation activities were designed to measure the participants' ability to apply crisis response skills to real-time scenarios. The participants' self-reported attitudes and beliefs regarding their learning were collected using various self-report measures, as well as through participant feedback via the focus groups. Even though some authors have questioned the accuracy of self-reported measures of learning, other authors have noted that student feedback on their learning experience is critical (Taylor et al., 2000). Therefore, a number of

Table 3:

Methods Used to Investigate Participants' Learning

Assessment Method	When Collected	Data Source
Simulation activities:		
Pre- and post-test simulations	First and last class	Participants
Participants' self-reported learning:		
Personal learning goals activity	First and last class	Participants
Critical incident questionnaire responses related to participant learning	After first six classes	Participants
District's professional development form - selected items	After last class session	Participants
Focus group responses related to participant learning	After last class session	Participants

researchers have recommended using mixed-method assessment approaches in simulation-based studies (Hertel & Millis, 2002; Sanci et al., 2002). For example, Sanci et al., in their investigation of physician learning using simulated encounters, reported that the use of both simulations and questionnaires was one way to improve the validity and reliability of a study.

Evaluation of Learning Through Simulation Activities

The course participants were divided into two groups of six by their profession to complete the simulations. These smaller groups were more reflective of the size of the school-based teams in the district, adding another element of realism to the activity. Each

group was divided so that it included at least one of the teachers, school counselors, and psychologists. Group One included two school counselors, a school psychologist, a school psychology intern, a parent liaison, and a home/hospital teacher. Group Two was made up of three school psychologists, one school counselor, one special education teacher, and an elementary teacher. This ensured that the groups each included members with diverse experiences and thus more closely resembled the composition of an actual school-based crisis team. The groups remained consistent from the first to last simulation so that their pre- and post-course responses during the simulation activities could be explored using the scoring rubric. The researcher facilitated the simulation for Group One during both pre- and post-simulation activities, while the co-teacher for the course facilitated the simulations for Group Two. Both the researcher and co-teacher had extensive experience facilitating and debriefing crisis simulations through previous trainings in their district.

The researcher measured the participants' ability to apply critical crisis response skills by collecting data on the problem solving strategies identified by each group during the real-time simulations. Major simulations were completed on the first day of the training (pre-test) and as the last training activity on the last day (post-test). Additional shorter simulations were also conducted and videotaped during other training sessions. While these shorter simulations were not scored using a rubric, the researcher reviewed the videotapes to look at the responses of the participants and the effectiveness of these activities for use in future trainings.

The researcher developed the pre- and post-training simulations using the method previously discussed in this chapter. The written responses from the participants were

scored for critical elements using a scoring rubric developed by the current researcher. Arter and McTighe (2001) identified rubrics as tools for the “valid and reliable assessment of student learning on . . . complex and hard-to-assess student outcomes” (p. ix). They found that rubrics could be beneficial when scoring complex performance-based activities and/or problem-solving tasks because the rubrics led to more consistent scoring practices while also helping to improve instruction by identifying critical instructional objectives (Arter & McTighe, 2001). Steffy (1995) noted that the use of these detailed scoring guides often improved the validity and reliability of authentic assessment measures.

The scoring rubric used in this study was designed by the researcher to measure the critical elements of crisis response that were identified in Chapter II and targeted via the simulations. The researcher followed procedures outlined by a variety of authors to develop these rubrics (Arter & McTighe; 2001; Moran, 1997; Oosterhof, 1999). Initially, the researcher outlined the essential skills and traits that were to be targeted by the simulation. The researcher wrote value-neutral definitions of each of the identified skills/traits. This basic outline of critical skills and traits was then modified so that the wording more clearly allowed for the scoring of written responses.

The rubric was then refined over time using a variety of strategies. First, the researcher shared the preliminary rubric with the other crisis team leaders in his district to get their feedback on the various measures. Based on their feedback and suggestions, the researcher clarified the directions for scoring each section of the rubric and changed some of the wording on the sections addressing at-risk students and at-risk staff.

Next, the researcher and the course co-teacher tested the rubric by scoring the responses given during the piloted simulation activities. A number of changes were made to the rubric after these piloting activities to clarify the directions and increase the user-friendliness of the scoring system. These changes to the scoring system were especially important, as this was the first opportunity that the researcher and co-trainer had to improve the future reliability of the scoring procedures. In addition to the changes to the scoring system, seven items were added to the rubric based on the responses that were received from the groups participating in the piloted simulations. These seven items were crisis response strategies that had not been included initially but were considered important enough to add to the rubric (e.g., The team identified one or more crisis responders to support at-risk students who have been previously identified).

The researcher piloted the rubric again during a district-level crisis team training in his school system. At the training, the school system's district-level crisis team members completed a simulation activity within their four response clusters. The researcher took these four sets of written simulation responses and scored them using the scoring rubric. Since these team members had additional previous training and experience as crisis responders, their responses provided valuable information for improving the rubric. The rubric was updated again following this activity, as the researcher again was able to identify critical response procedures that could be added to the rubric. A total of nine new items were added to the rubric based on the patterns of responses from this training. The final crisis simulation scoring guide/rubric used to score the class participants' written responses is attached in Appendix H.

The reliability and validity of the rubric as an assessment tool was further addressed using a double coding method supported by Boyatzis (1998) and Moran (1997). Using this method, two raters (the researcher and the course co-teacher) independently reviewed the written procedures, agendas, and statements developed by the groups participating in the simulation. Next, the two raters used the rubric to independently score the groups' responses regarding the written procedures, agendas, and statements. The raters then compared their rubric scores to look for inter-rater agreement. Any differences in scoring were revisited and discussed until a consensus was reached between the two raters. When needed, the raters reviewed the videotapes of the simulations to determine the context for the written products. This double coding technique was initially used when the rubrics and simulations were piloted, and then used again when the actual training simulations were scored. The inter-rater agreement after scoring the pre- and post-simulations independently is shown in Table 4. The inter-rater

Table 4:

Inter-rater Agreement on Rubric Scoring After Scoring the Simulations Independently

Simulations	Group/s	Agreement
Pre-simulation	Group 1	.95
	Group 2	.94
	Groups 1 & 2 combined	.94
Post-simulation	Group 1	.92
	Group 2	.89
	Groups 1 & 2 combined	.90

agreement was calculated by dividing the total number of rubric items scored the same before any discussion between the raters (items could be scored as 0 points, 1 point, or 2 points) by the total number of possible items scored.

Participants' Self-Reported Evaluations of Learning

Personal Learning Goals Activity

The participants completed a variation of a goal ranking and matching activity described by Angelo and Cross (1993) to help assess their beliefs about their own learning throughout the course. For this measure, the training participants individually identified and rank-ordered their top three learning goals on the first day of the training. The researcher then collected these ranked learning goals, typed the goals for each participant, and returned the goals to the participants on the last day of the class. At that time, the participants reviewed the personal learning goals that they had each identified at the beginning of the class. They were then asked, in writing, to indicate how well they felt that their personal learning goals had been met during the course and why they felt that way. The participants' responses to these self-identified critical learning objectives provided valuable information regarding their perceptions of their own learning that occurred throughout the course. Since some of the personal learning goal responses addressed various aspects of the course content and teaching strategies, the researcher was also able consider these responses when looking for themes and patterns that could be used to fine-tune the course curriculum. The personal learning goals form can be found in Appendix I.

Other Measures Used to Identify Themes and Patterns Related to the Participants' Self-Reported Learning

A number of measures that were discussed in previous sections of this chapter also provided valuable information regarding the participants' self-reported beliefs about what they learned as a result of taking the crisis course. Specifically, many of the participants' comments on the critical incident questionnaires, the professional development feedback forms, and the focus group transcripts included responses related to their perceptions about their personal growth. The researcher used the data coding method described earlier in this chapter to identify any themes and patterns that emerged across these data collection tools (Stewart & Shamdasani, 1990).

CHAPTER IV

RESULTS

The purpose of this study was to develop, implement, and evaluate a comprehensive crisis preparation and response curriculum. The first two steps of this study, developing a comprehensive crisis preparation and response curriculum and implementing the curriculum in a course for school-based professionals, have been addressed in previous chapters and in the appendices of this dissertation. The results discussed in this chapter will focus on the three primary research questions outlined in Chapter I. These three research questions focused on whether changes were seen in the course participants' learning and behaviors based on multi-method evaluation techniques, the effectiveness of using real-time simulations to help practice and develop crisis preparation and response skills, and what adjustments and modifications could be made to the content and teaching strategies of the developed curriculum to improve the course for future trainings.

The results in this chapter are presented by research question. The results for each of the three research questions include summaries of the patterns and themes found across the participants' responses and the observations of the researcher. This data included information from the focus groups, critical incident questionnaire responses, personal learning goals feedback, researcher's field notes, and the district's professional development feedback form. In addition, the course participants' performance on the pre- and post-test simulation activities were considered when answering research questions one and two.

Research Question One Findings

Research Question One: To what extent did the training help to facilitate changes in learning and behavior when measured at the group and individual participant level using multi-method evaluation techniques?

Changes in Learning and Behavior as Indicated by Group Rubric Scores on the Pre- and Post-test Simulation Activities

The two groups of school-based professionals both demonstrated considerable improvements in their rubric scores from the pre-test simulation conducted at the beginning of the course to the post-test simulation held during the seventh and final session. Group One, which was made up of two school counselors, a school psychologist, a school psychology intern, a parent liaison, and a home/hospital teacher, earned a total of 37 points on the initial simulation. The score on the post-test simulation for Group One was 57 points, an improvement of 54% from pre-test to post-test. The improvement from pre-test to post-test for Group Two was even greater. Group Two, which included three school psychologists, one school counselor, one special education teacher, and an elementary teacher, received 27 total points on the pre-test and 56 total points on the post-test simulation. This improvement of 29 points from pre-test to post-test equaled an increase of 107%.

The improvement of the two groups from the pre-test simulation to the post-test simulation was further investigated by looking at the groups' scores for each of the nine sections of the scoring rubric. The groups' performances and score changes from pre- to post-simulation for each section of the rubric can be found in Table 5. Group One's

scores improved for seven of the nine sections from pre-test to post-test. This group's scores remained the same on one section and went down by one point on another section on the post-test simulation. Group Two earned higher scores on the post-test simulation on eight out of the nine sections, with no change on one section. Overall, the two groups improved on fifteen of the eighteen sections, showed no change on two sections, and went down on one section. The sections for which the scores remained the same or went down for the post-test activity did not correspond across the two groups.

Table 5:

Groups' Rubric Scores for the Pre- and Post-test Simulations, by Section

Rubric Section (Total possible points for section in parenthesis)	Group One		Group Two	
	Pre	Post	Pre	Post
Verify facts (6)	4	6	0	6
Notify appropriate personnel (6)	2	6	2	4
Identify at-risk staff members (4)	2	3	3	3
Identify at-risk students (6)	1	4	3	5
Assess number of crisis responders needed and how they will be used (7)	5	5	2	3
Identify other school resources needed and how they will be used (8)	4	3	1	4
Develop necessary statements (11)	5	6	4	5
Plan agenda for staff meeting (21)	12	14	9	13
Miscellaneous Steps (11+) (More than 11 points can be earned based on the number of "other steps" identified)	2	10	3	13
Total Score (80+)	37	57	27	56

*Changes in Learning and Behavior as Indicated by the
Personal Learning Goal Feedback*

All of the class members identified their personal learning goals at the beginning of the course using the procedures identified in Chapter III. Eleven of the twelve course participants turned in personal learning goals feedback at the end of the course. For this activity, the individuals in the class were asked to write and rank-order their top two or three personal learning goals for the course. This initial phase of goal identification was completed during the first class session. At the end of the last class session, the participants were asked to indicate, with brief written responses, whether or not they felt that their personal learning goals had been met. The eleven course participants who returned feedback set a total of thirty personal learning goals, with each person writing two or three goals.

The researcher examined the participants' written responses on their personal learning goals to determine whether or not they felt their goals had been met through the course content and teaching strategies. For the researcher to conclude that the learning goal was met, one of two criteria needed to be present in the written response. First, the researcher concluded that a learning goal was met if the participant clearly stated that the goal had been met and then explained why he or she felt this way. The second way in which the researcher determined whether a learning goal was met was if a participant did not clearly state that the goal had been met but did provide examples of strategies and/or learning that occurred to help meet the identified goal. When either of these two response styles was present, the researcher noted that the learning goal had been met. A summary of the goals and whether each goal was met can be found in Table 6.

Table 6:

Participants' Personal Learning Goals

Participant / General Goal	Was Goal Met?
Participant 1:	
Goal 1 – Learn strategies for supporting staff during a crisis	Yes
Goal 2 – Learn different intervention ideas for all stages of crisis response	Yes
Participant 2:	
Goal 1 – Learn how to take a leadership role in a crisis	Yes
Goal 2 – Learn strategies for teachers to use with students following a crisis	Yes
Goal 3 – Learn how to support adults in the building who are grieving	Yes
Participant 3:	
Goal 1 – To be able to present information to staff members in an objective manner without becoming overly emotional	Unsure
Goal 2 – To be able to prioritize the information that needs to be presented	Yes
Participant 4:	
Goal 1 – To feel more comfortable (responding to a crisis)	Yes
Goal 2 – Deciding when a crisis is a crisis and who makes that decision	Yes
Participant 5:	
Goal 1 – To assist with handling any school-wide/local/county crisis	No Chance Yet
Goal 2 – Learn how to handle adult grief (in a crisis situation)	No Chance Yet
Goal 3 – To ensure each crisis is handled correctly from a legal/ethical/procedural perspective	No Chance Yet
Participant 6:	
Goal 1 – Understand the functioning and tasks of the school-based team	Yes
Goal 2 – Learn how the school-based and Central Office staff work together	Yes
Goal 3 – Role-play different types of crises and approaches teams would take	Yes
Participant 7:	
Goal 1 – Learn comprehensive strategies/procedures for managing a school crisis	Yes
Goal 2 – Learn strategies for following up after a crisis	Yes
Goal 3 – Learn about additional resources to use when working with students following a crisis	Yes
Participant 8:	
Goal 1 – To practice the skills needed to be an effective crisis team member	Yes
Goal 2 – Learn a framework of responses to apply once a crisis has occurred	Answer Unclear
Goal 3 – Learn debriefing skills and obtain resources for long-term support following a crisis	Yes
Participant 9:	
Goal 1 – Good understanding of steps to take in a crisis without manual	Yes
Goal 2 – Know about specific steps and topics for consulting with students	Yes
Goal 3 – Awareness of body of research supporting district's crisis procedures	Yes

Table 6 continued:

Participant / General Goal	Was Goal Met?
Participant 10:	
Goal 1 – To become more confident and fully knowledgeable in any crisis	Yes
Goal 2 – Learn about strategies that can aid parents in a crisis	Yes
Goal 3 – Learn about strategies that can be used to assist staff in a crisis	Yes
Participant 11:	
Goal 1 – To apply crisis response procedures with limited use of crisis manual	Yes
Goal 2 – To obtain ideas for crisis response/professional development prior to crisis taking place	Yes
Goal 3 – Learn about strategies that can be used by teachers/crisis team members to work with groups of students following a crisis	Yes

Based on a review of their written responses, the course participants reported that 25 out of their 30 personal learning goals (83.3%) had been met or exceeded by the end of the course. For example, one of the school-based professionals had set the goal of being able to learn how to take a leadership role in a crisis. By the end of the course, she stated:

I feel that I have met this goal . . . in becoming so much more aware of the procedures and issues surrounding a crisis will allow me to take on a leadership role. Also, I will be the most trained person in my building at this point.

Likewise, another course participant reported that one of his or her goals was to better understand the roles and responsibilities of the school-based crisis team. At the end of the course, this person indicated that he or she had “definitely” met this goal and would feel comfortable explaining these roles and responsibilities to other staff members at his or her school.

Participant 11’s response to her first personal learning goal served as a good example of how the researcher concluded a learning goal was met when the participant

described the strategies she had learned but did not clearly state whether or not her goal was met. For this goal, the participant had indicated that she wanted to be able to apply crisis response procedures with limited use of the crisis binder. In her personal learning goal response, Participant 11 noted, “The various Power Points, discussions, and activities have really helped me to build up my crisis response skills. With each passing week, I become more comfortable using the steps involved.” While this respondent did not clearly state that the goal had been met, she did provide concrete examples of how crisis response procedures were learned and at the same time reported that her comfort level applying these procedures had increased.

Five of the thirty responses did not meet the criteria developed by the examiner for concluding that the learning goal had been positively met. In each of these cases, the participants did report that some progress had been made toward the learning goal, although they did not indicate that the goal was clearly met. For example, Participant 5, for each of her learning goals, stated that she would not know how successful the course had been in helping her meet her goals until she had a chance to apply the skills in an actual crisis situation. Since her school had not had a crisis during the semester the course was taught, she felt that she couldn’t clearly answer whether or not her learning goals had been truly met. Likewise, Participant 3 was unsure about how she would fare emotionally in an actual crisis situation, although she did feel that she learned to be more objective in assessing a crisis event. She stated in her response, “I believe this class has helped me to look at certain situations objectively, but I’m not sure I’d be able to be objective enough to leave all of my emotions on the inside.” The final learning goal that was not clearly met was a goal set by Participant 8. This individual did talk about

specific information that was learned during the course in his or her response, but the information that was discussed in the response did not seem to relate to the initial learning goal set by the participant.

*Changes in Learning and Behavior as Indicated by the District's Professional
Development Feedback Form*

The course participants' responses on the district's professional development feedback form were collected at the end of the course and clearly documented that the participants felt that the course had met or exceeded their professional development expectations. On the short answer responses, the twelve participants all listed numerous ways in which the course met their needs and described various strategies that they learned in the course and hoped to apply in future crisis situations. The course participants were also asked to rate their experiences in the course using Likert-style rating scales. For the various questions, the participants could reply with *Strongly Agree* (SA), *Agree* (A), *Somewhat Agree* (SwA), *Disagree* (D), *Strongly Disagree* (SD), and *Not Applicable* (NA). Some of the terminology used in this data collection tool was common to the school district's guiding principles (i.e., know the learner, know the curriculum, know the pedagogy) and these terms were likely familiar to the participants prior to this training, based on their participation in other professional development activities in the district. The participants' responses to the various questions are listed in Table 7 and act as another strong indicator of the learning they feel occurred during the seven-session course, as they consistently reported that the course was effective, applicable, and met the intended outcomes while increasing their knowledge and/or skills in crisis preparation and intervention strategies. In fact over 90% of their responses to

these prompts indicated that they *Strongly Agreed* that the course was effective in increasing their knowledge/learning. As all of the participants agreed that the course applied directly to his or her role as a school-based professional, the impact of taking this course appeared to have positive implications for future practices for each of the class participants.

Table 7:

Participants' Self-reported Learning on District's Professional Development Form

Overall, this professional development . . .	SA	A	SwA	D	SD	NA
Was effective	12	0	0	0	0	0
Met the intended outcomes	12	0	0	0	0	0
Increased my knowledge and/or skills regarding the learner	11	1	0	0	0	0
Increased my knowledge and/or skills regarding the curriculum/content	11	1	0	0	0	0
Increased my knowledge and/or skills regarding the pedagogy	9	2	0	0	0	1
Applied directly to my situation	10	1	1	0	0	0

Changes in Learning and Behavior as Indicated by Themes and Patterns Found

Throughout the Course Feedback

Using the procedures described in detail in Chapter III, the various data collection tools used in this study were carefully reviewed to look for themes and patterns that further indicated possible changes in the participants' learning and behaviors. The researcher found three themes throughout the various evaluation tools that consistently highlighted changes in the participants' behavior and/or learning as a result of taking the course. These three themes were the participants' willingness to take a larger role on the

crisis teams at their school following the training, their increased comfort and confidence applying the crisis skills, and their increased knowledge of the critical skills necessary to prepare for and respond to a school crisis.

The Participants' Plans to Increase Their Roles on Their School-based Crisis Teams

The course participants made a number of comments throughout the focus groups and on their critical incident questionnaires, personal learning goal feedback, and professional development feedback forms about their intentions to increase their participation on their school-based crisis teams as a result of taking this course. For example, the course participants discussed their plans to increase their leadership responsibilities as members of their schools' crisis response teams. A number of individuals reported that they had already told their existing school teams that they would like to become team members this year or next year, with two of the course participants stating their willingness to take on leadership roles on their teams. Another of the school-based professionals talked about how she offered to join the team, and at the same time, questioned why the school's crisis phone tree had not been developed yet. She then worked with the existing team members at her school to ensure that an accurate crisis phone tree was distributed within a month of her initial inquiry.

Similarly, a number of the respondents indicated that they would also become more involved in professional development opportunities at their school related to crisis preparation and intervention. These participants' responses ranged from general statements to the discussion of specific strategies they could implement at their schools. One of the general themes identified was that a number of participants said they had learned about possible ideas for future professional development activities with their

teams. More specific strategies for professional development that were discussed included developing packets for crisis bins, clarifying the roles and responsibilities of crisis team members with other staff members, and reviewing the crisis response checklist with their school-based teams to help determine what strategies and procedures the team members may need further training on. Thus, the school-based professionals who took this class planned on using the skills they learned throughout the course to increase their future involvement on their school-based crisis teams.

The Participants' Increased Comfort Level with and Confidence in Their Crisis Preparation and Response Skills

A second theme apparent throughout the various feedback collected was the increased confidence and comfort level the participants expressed when discussing their ability to respond to future crises. In total, the focus group responses, personal learning goals, critical incident questionnaires, and professional development feedback forms included more than 20 different comments about the participants' increased comfort levels and/or confidence in responding to future crises. Some of these comments were general in nature, while others identified specific skills and strategies the course participants now felt more confident using in a crisis situation.

The most revealing feedback in this area was the participants' responses related to their increased comfort level when completing the final simulation activity. A number of the course participants indicated that they felt much more confident in their ability to successfully and effectively manage the last simulation activity. For example, one participant stated, "It was validating to feel that it wasn't as anxiety provoking. It wasn't so stressful. I felt confident." Likewise, another person, when discussing their increased

confidence responding to the last simulation, reported, “So then at the end it was nice to see, like wow! I have learned stuff! And we can handle this better!” Therefore, the school-based professionals clearly noted positive improvements in their own comfort and confidence levels in responding to potential crises.

The Participants’ Increased Knowledge of Skills and Procedures and the Internalization of These Skill Sets

The most frequently reported theme in the participants’ feedback regarding their learning and behaviors was their feeling that they had learned and could apply critical strategies and procedures for effectively responding to a crisis situation. The participants made over 30 comments across the various data collection tools about their improved competencies in knowing the steps and procedures needed to effectively respond to crises. Most importantly, a number of the school-based members discussed their belief that they now had internalized the skills needed for responding flexibly to various crisis situations. For example, one individual stated that he or she was now able to apply the crisis response skills with limited use of the crisis response manual. Other individuals talked about knowing the steps in their heads or having a mental plan, a mental map, and/or an internal framework that they could rely on when faced with a crisis situation.

One course participant succinctly summarized this theme during a focus group discussion as she talked about her growth from the first to the last session of the course. She noted that early in the course she felt she needed and relied on the district’s crisis manual to make decisions and “wanted to have that book handy.” When she found out during the first class that one of the goals of the course was to be able to respond to a crisis without relying on the manual, she said her response was, “Can we have our crutch

please? Can we just have the book?” However, by the end of the course she reported she had a mental map in her head and that she was very pleased to see how effectively she was able to apply this mental map during the last crisis simulation, especially as the crisis manuals were not available to use as a reference. In summary, her comments were just one example of how the various school-based professionals in the course felt that the crisis preparation and intervention strategies had become engrained from the first to the last class session.

Research Question Two Findings

Research Question Two: To what extent did participants view the use of real-time crisis simulations as contributing to their learning and comfort level applying crisis preparation and response skills?

The researcher, using the procedures discussed in detail in Chapter III: Methodology, investigated the effectiveness of the crisis simulations as a learning tool by analyzing the participants’ responses on the various data collection tools used in this study. Specifically, the responses collected via the focus groups, critical incident questionnaires, personal learning goals, field notes, and the district’s professional development feedback forms were all reviewed to find comments and suggestions related to the participants’ simulation experiences. After all of these comments and suggestions were identified, they were reviewed again to look for patterns and themes that emerged from the responses of the twelve participants across all of the data collection tools. The researcher found a number of themes and patterns during this review process. The themes and patterns that became apparent based on this review included the participants’

beliefs that the real-time simulations were effective teaching tools, that the participants benefited from seeing their strengths and weaknesses change over time as they responded to the simulations, and that the simulations effectively modeled many of the feelings and reactions felt during actual school crisis responses. In addition, the course participants shared similar feedback on the smaller simulations and role-play activities used throughout the crisis preparation and response curriculum. These brief experiential activities included the impact scenario, the follow-up activity, and the individual and group counseling role-plays.

*Using the Simulations as an Effective Teaching Tool for Learning
and Practicing Crisis Response Skills*

Practicing the Skills and Strategies Discussed During the Course

The course participants consistently reported that the real-time simulation activities were an effective method for learning and practicing their crisis preparation and response skills. The class members described a number of ways in which the simulations helped them hone these skills. There were many statements across the various feedback tools that referred to the simulation activities as being effective methods for learning and practicing the steps and strategies discussed during class lectures and presentations. In total, the researcher found over 35 references across the various feedback tools related to this theme. One of the key patterns noted in these responses was that the simulations provided a framework for identifying and applying specific crisis response procedures. As was previously discussed when answering research question one, many of the course participants reported that they felt the simulations helped them develop and practice a mental map or internal guide rather than relying on the crisis manual.

Practicing the Management of a Crisis Response

Another critical theme that arose from the feedback was that the school-based professionals in this study found that they learned a great deal about managing a crisis response from their participation in the two real-time simulations. The skills that they reported learning while managing the simulations were not related to any specific strategies or steps discussed in the review of the crisis response procedures, but instead included other skills that greatly influence a team's ability to effectively manage a crisis response. The types of crisis management skills mentioned by the participants included practicing group communication and time management strategies, prioritizing what steps to take during the simulation, and delegating tasks efficiently.

The school-based professionals discussed the importance of these critical crisis management skills during the focus group discussions. For example, one participant, when talking about her simulation experience, noted, "I think it really taught us how to break things down and prioritize." A member of the other focus group shared a very similar viewpoint, highlighting that learning a process for handling a crisis situation was just as important as knowing the steps needed for a response. Specifically, she stated, "The simulations really helped us to develop a *process* for handling [a crisis situation] in a short amount of time, so that by the end of the course, that last simulation . . . we were able to handle that a lot more efficiently." The other members of this focus group all strongly agreed with her assessment that learning to prioritize what steps needed to be taken and how to work as a group during the simulation activity taught them a process for handling future responses more effectively and efficiently. In fact, one of the participants asked if the co-trainers could offer quarterly simulations that the members of the class

could participate in to ensure that they maintain their crisis management and response skills over time. Based on this feedback, the course participants clearly indicated that they had learned critical crisis management skills through their participation in the simulation activities offered throughout the curriculum.

Using the Simulations as a Measure of Current Skills and Growth in Skills Over Time

The researcher briefly discussed the use of the real-time simulations to measure changes in the participants' learning and behaviors while addressing research question one. As was previously noted, the course participants demonstrated substantial progress in their application of crisis response strategies and crisis management skills from the pre-test simulation to the post-test simulation based on their performances on the scoring rubric. In addition, another key theme related to the participants' growth as measured via the simulation activities was found across the feedback the participants provided throughout the course. Specifically, the school-based professionals taking this course felt that the real-time simulations were important tools for helping them to measure and feel more confident in their own growth over time. A number of the participants made comments on their personal learning goals, critical incident questionnaires, and during the focus group discussions about the importance of the final simulation activity in demonstrating their learning to themselves, regardless of their performance on the scoring rubric.

Of the many examples of these comments about the importance of the simulation activities in demonstrating progress, a few stood out that highlighted this theme. During one of the focus groups, a participant noted that she would not have felt as confident about her skills or believed that she actually could respond to a real crisis if she had not

seen her own growth while responding to the last simulation. A classmate from her focus group agreed, reporting that she felt “validated” by her ability to respond effectively during the second real-time simulation activity compared to her feeling of being overwhelmed during the first simulation. Members of the other focus group discussion reported similar feelings about the importance of demonstrating their personal growth. For example, one participant, while talking about the last real-time simulation activity, stated:

It does develop your confidence. You see it from the first simulation to the second. I remember the first one, I felt nervous, just so unsure, and now this one . . . I felt comfortable enough to respond to it. Like I knew what I was talking about.

Another participant provided an excellent summary of this theme by noting, “The simulations, going from the first one to the next one, we all saw our growth from the beginning to the end [of the course], and that was nice.”

The Effectiveness of the Real-time Simulation Activities in Simulating an Actual Crisis

The researcher found that the use of the real-time simulation activities did serve as an opportunity to practice crisis preparation and response skills that somewhat modeled the environment many school teams experience during a crisis, one that is stressful, intense, and demanding. Based on the feedback of the participants, the crisis simulations developed for this course appeared to effectively elicit many of the feelings and reactions people tend to experience in a real crisis situation. In fact, the course participants often used specific words and phrases commonly heard during crisis responses as they described their reactions to the simulation activities. These words are

listed below. The number of times each word was found in a participants' comment about their simulation experience is in parenthesis beside the descriptor. A number of participants described feeling anxious (used 7 times) and nervous (4 times) during the simulations. As the simulations were discussed during a focus group, one person summarized these feelings, saying, "I felt the practices were effective and challenging. They were a bit unnerving and created some anxiety while going through the simulations. Even when they were over, I couldn't help thinking about them and what to do." Other words used by the participants to describe the real-time simulations included stressful (4), intense (3), overwhelming (2), and eye opening (2). For example, during a focus group one participant stated, "I remember doing the first simulation, not knowing where to start, feeling really overwhelmed." In fact, some of the participants who previously had crises occur in their schools reported that they felt that the crisis simulations were more stressful and intense than the actual crises they had experienced in their schools. These participants attributed these elevated reactions to the time constraints involved in the simulations and their belief that many elementary schools do not typically experience crises as complex as the simulations.

The course participants indicated that there were a number of ways in which the real-time simulations accurately modeled an actual crisis situation. As was mentioned before, the use of time constraints seemed to help create a "real-life" feel to the activities. This was concisely summarized by one of the participants during a focus group discussion, who stated, "Having the feeling I described above [limited time] was eye opening. I do feel more prepared already, just in practicing such a scenario in real-life time." Similarly, the course participants frequently mentioned that the various distractors

and interruptions built into the simulation activities added a sense of realism. These distractions and interruptions were based on normal situations that arise throughout the school day, such as a demanding phone call from a parent or a decision about whether or not a class should go on a field trip if a crisis has occurred within the school community.

Another theme highlighted by many of the participants was that working through the real-time simulations as a member of a group, rather than individually, added to the realism of the activity, as they responded like they were actually members of a school team. On a few different occasions, participants in the course noted that these group interactions created environments that were similar to working on actual school teams, since they needed to consider the communication skills and response style of the group while making decisions. Interestingly, a few of the participants felt that working within these class groupings was more challenging than working with an actual school team given that there was no clear administrator or leader who took charge. However, a few other participants reported that they felt more comfortable working through the simulations with their classmates by the end of the course because they knew that everyone had participated in a similar crisis training experience, which made them more willing to share the various tasks and responsibilities while working through the final crisis simulation activities.

The Effectiveness of Brief Simulation and Role-play Activities in the Curriculum

While the main focus of this research question was to explore the influence of the real-time simulation activities on participants' comfort level learning and applying crisis response skills, there were some other experiential learning activities that used similar methodologies to practice various skills targeted by the curriculum. Specifically, the

course participants practiced applying crisis intervention procedures and strategies during a degree of impact scenario, while considering the short- and long-term crisis response needs for various crisis scenarios, and while working on basic crisis counseling skills during small group role-plays. As with the real-time simulations, the participants worked on these activities in groups, practiced skills that had been covered during the class, and debriefed as a group following the experience.

The participants' feedback on these three experiential learning activities mirrored many of the themes and patterns found for the larger, real-time simulations. The responses from the critical incident questionnaires collected at the end of each session consistently identified these simulation and role-play activities as the most interesting and informative part of the class sessions. The school-based professionals taking this course indicated that these activities led to many of the same initial reactions of anxiety and stress, but that the presence of these feelings was often beneficial when various crisis response skills were practiced, as working through the simulations despite these feelings made the participants feel like they were gaining experience practicing the critical skills in crisis-like situations. For example, one participant, following the counseling role-plays, stated, "Doing the role-play, it was hard! It was really helpful to have this experience in this setting, because it helps to anticipate the way it feels and my strengths and weaknesses."

As with the longer real-time simulations, these shorter simulation and role-play activities also provided the course members with an opportunity to practice the skills they had just learned in a realistic manner. The participants consistently reported that these realistic activities helped them improve their problem solving skills. The participants felt

they learned better time management and the importance of prioritizing, and through these practice activities were able to engrain the strategies and procedures that were presented and discussed during the course. One participant summarized this view very succinctly. When asked on the critical incident questionnaire what teaching strategies were most effective that week, she said the degree of impact simulation, which provided an opportunity for “practice, practice, practice, and more hands-on practice.”

Research Question Three Findings

Research Question Three: To what extent did the evaluation of the training lead to suggestions or modifications of future training efforts?

The researcher used the data analysis techniques described in detail in Chapter III: Methodology to identify patterns and themes from the various participant responses that could be used to fine-tune the curriculum for future training efforts. For the purposes of this study, the researcher explored these patterns and themes starting from a broader perspective and moving toward more detailed feedback on specific curriculum content and strategies. First, the researcher reviewed patterns and themes linked to the overall curriculum by looking at general feedback on the course and any feedback related to the key principles of adult learning that were used to help design the curriculum. These key principles included providing active learning experiences with opportunities for reflection, creating a safe learning environment for adult learners, and linking new learning to previous experiences. This review also identified themes and patterns related to specific teaching strategies emphasized in the adult learning literature that were built into this curriculum, such as using hook activities, implementing multiple training

formats, using simulation and debriefing exercises to enhance learning, and leading co-taught trainings. Then, the researcher considered the effectiveness of the scope and sequence of the curriculum based on the patterns and themes found across the various data collection tools. Finally, the researcher considered the feedback and suggestions on specific content areas and/or teaching strategies within the curriculum.

Patterns and Themes Linked to General Feedback on the Curriculum and to the Key Principles of Adult Learning Used to Develop the Curriculum

General Feedback on the Course

The general feedback on the course was very positive based on participant responses across all of the data collection tools. Some of this feedback has already been reviewed when the themes and patterns related to the first two research questions were considered. For example, the responses on the personal learning goals and the district's professional development feedback form were very positive and indicated that the participants all felt that they had learned a considerable amount about crisis preparation and response as a result of taking this course. In addition to the responses that were previously discussed, the course participants made a number of statements during the focus group discussions that indicated that their general reactions to the course curriculum and teaching strategies were very positive. For example, participants described the course as informative, interesting, important, helpful, and useful. They generally reported that the course met or exceeded their expectations. There were a number of positive quotes based on these experiences. One person stated:

To take something that is this huge, monstrous training and to find a way to bring it down to a level where it could be just a framework . . . that we can use so directly now. I thought it was very effective.

A second person said, “In light of going through this, boy does it make sense now. I can walk away and use the manual and use my experience here to really effectively handle situations.” Another participant reported, “It is like the feedback form never worked, because all of our feedback was, ‘This is great!’.” Thus, when all of the data from the various feedback formats was considered, the researcher concluded that the curriculum and teaching strategies used in this study were received very positively and generally met or exceeded the participants’ expectations.

Developing a Training with Opportunities for Active Learning and Reflection

The patterns and themes that emerged from the various data collection formats clearly demonstrated that the course participants appreciated and had ample opportunity to participate in and reflect on active learning tasks. Of all of the various teaching strategies and activities used throughout the training, the active learning tasks always received the most positive feedback. These types of activities included the real-time simulations (sessions one and seven), the i-movie with debriefing (session two), the scenario on assessing the degree of impact of a complex crisis (session four), the scenarios for following-up after a crisis (session five), the crisis manual scavenger hunt (session five), and the counseling role-plays (session six). The participants also made numerous positive references to the various opportunities they were given to work together in small groups. These activities were consistently described as the most

interesting, most helpful, and most effective teaching strategies on the critical incident questionnaires.

During the focus groups, the participants noted that the simulation and role-play activities helped them to engrain and apply the steps and skills that they had learned in other parts of the training. Likewise, a number of participants indicated that the debriefing sessions after each of the experiential learning tasks were very helpful. These participants felt that they needed the emotional release provided by the debriefing as well as a chance to further discuss and integrate the skills and strategies they had just practiced in the various activities. In fact, on a few occasions the class members asked for more time to debrief or requested further modeling of the skills by the co-trainers, and were willing to stay after class to get this extra opportunity for discussion and practice. Therefore, based on the consistent, positive nature of all of the feedback, the researcher concluded that these active learning tasks were an essential part of the crisis preparation and response curriculum.

Developing a Training that Creates a Safe Environment in Which Learning Can Occur

Another key principle discussed in the adult learning literature was the need to create a safe learning environment where the adults could openly discuss and reflect on their learning experiences. Since this was more of an abstract concept that was not directly targeted by the curriculum content, there was less information found across the various data collection tools related to this key principle. However, given the emotionally charged and sometimes difficult content covered during a course on crisis preparation and response, the researcher felt that any possible themes and patterns related to this key principle should be identified.

At different times throughout the course, various participants discussed their increased comfort talking about the difficult subjects covered in the curriculum. One participant noted, “I think the opportunity to really go through what we had done in a comfortable environment and debrief the difficult things you were talking about was a good way to learn.” The course participants seemed to appreciate always having the opportunity to stop during an activity and ask questions if an idea or topic was not clear without feeling that their classmates or the co-trainers would judge them. For example, one participant reported:

I think particularly with the discussion part there was a lot of opportunity to just raise questions and get their feedback and hear what they were thinking about different scenarios and kind of talk through as opposed to, ‘and here is the right answer’.

Another school-based professional commented:

This is a pretty anxiety-provoking thing we are talking about. But with every opportunity there was a lot of making sure that everyone was comfortable and providing a safe environment to be able to be open and really not afraid of saying the wrong thing.

The course participants also were very clear on the fact that they preferred a collaborative model to learning rather than an expert model. There were many comments made throughout both of the focus group discussions about how the co-trainers talked about their own continuous learning as they responded to various crisis situations. This implied attitude about learning, that as adults everyone continues to learn from different experiences, seemed to resonate with the course participants and increased their comfort

level as they interacted with the difficult topics covered in the course. For instance, one of the focus group members stated:

I like that fact that they [the co-trainers] would be honest and say they had to find this out through trial and error. A lot of the things that they found worked was through them actually being in a crisis and not really getting it from a textbook.

When talking about the presentation style of the co-trainers as they discussed crisis responses, another school-based professional said:

They do come across very easy going and that it is very easy for them in a sense, as far as knowing what the steps are and carrying them through. But it is good that they did say, ‘Gee, some of the times, in retrospect, we probably didn’t do it right’.

A third focus group member summarized this overall theme very well, noting:

This is a tough subject to talk about, and they just presented it in a safe way.

They were genuine in lessons learned. Like, they didn’t make it out like, ‘We didn’t make any mistakes in this . . . Even when *we* are in a crisis situation, at the end we come together as a staff and say, O.K., what worked well and what do we need to improve?’ We’re allowed to make mistakes, and that’s O.K. . . . because often, that’s a big thing.

Thus, the manner in which the course curriculum was presented seemed to provide a safe learning environment for the school-based professionals taking the course. The use of a collaborative learning approach rather than an expert-based model, combined with frequent opportunities for discussion and questions, set a foundation for a safe environment where learning and exploration could occur.

Developing a Training that Provides Opportunities to Integrate New Knowledge

There were many opportunities throughout the curriculum used in this study to practice skills and integrate new knowledge. Many of these opportunities have been discussed in other sections of this chapter. Therefore, this topic will only be covered briefly in this section by providing a few direct examples from the participants' perspectives on their learning. These participants commented on numerous ways in which they were given the opportunity to integrate new information, highlighting the way the course was organized so that one skill built on the next, the multiple chances to learn and practice new skills, the real-life examples provided from other school crises, and the frequent opportunities to ask questions and have group discussions and debriefings until all questions were addressed.

The opportunities to practice new skills were critical for many of the participants. While talking about her improved counseling skills, one class member said, "The role-plays, I know that was the thing that engrained it to me. That didn't just make it [only] a PowerPoint presentation on the topic." A member of the other focus group shared a similar view, stating, "I feel like we got the information and then we got a chance to practice it. We got some more information, and then we got a chance to practice it." She went on to report how all of the practice helped her to feel more confident that she could apply the skills in an actual crisis situation. Based on the various feedback, this chance to frequently practice the crisis response skills, when combined with ongoing opportunities for discussions, questions, and the provision of real-life examples from actual school crises, seemed to help the course participants integrate new information.

The Use of Specific Key Teaching Strategies in Adult Trainings

Co-taught trainings. The adult training literature recommended that adults preferred co-taught trainings as opposed to courses led by only one trainer. The patterns and themes identified across the various feedback tools supported the use of co-trainers for the curriculum used in this course. Participants in both focus groups commented on the benefits of having two different presenters co-leading the training. For instance, a member of one focus group stated, “It worked well to have two different presenters with two different styles.” A few of the participants’ comments on the critical incident questionnaires similarly highlighted the value of having co-trainers for the course.

The district’s professional development feedback form also included Likert-style questions related to the performance of the presenters. Specifically, the participants were asked to respond to four questions about the skill and effectiveness of the presenters. As can be seen in Table 8, the course participants provided very positive feedback on the co-trainers. For each of the questions listed in Table 8, the participants could reply with *Strongly Agree (SA)*, *Agree (A)*, *Somewhat Agree (SwA)*, *Disagree (D)*, *Strongly Disagree (SD)*, and *Not Applicable (NA)*.

Table 8:

Participants’ Feedback on the Presenters on District’s Professional Development Form

Overall, the presenters . . .	SA	A	SwA	D	SD	NA
Were knowledgeable and skilled	12	0	0	0	0	0
Modeled good instruction with effective, engaging experiences	11	1	0	0	0	0
Addressed the learning style of participants	11	1	0	0	0	0
Attended to physical comforts	10	1	1	0	0	0

The use of multiple training formats. The participants' feedback on the various data collection tools supported the use of multiple training formats throughout the course sessions. Responses from the critical incident questionnaires following each session and the focus group discussions emphasized that the different training formats used throughout each session increased the engagement and interest of the learners. For example, on the critical incident questionnaires and the district's feedback form, the participants reported that the use of real-life examples/stories, group discussions, simulation and role-play activities, group interactions, and PowerPoint lectures were all effective teaching strategies. In fact, the participants did not identify any patterns of ineffective teaching strategies on the critical incident questionnaires.

The focus group discussions supported this theme. Participants in one of the focus groups made comments related to the multiple training formats used, noting that the co-leaders did a good job of mixing up the ways in which the information was presented and "providing classes that were not just direct instruction the whole time." During the other focus group, a participant clearly summarized the benefits of using multiple training formats by stating:

I think they were tuned in to what we needed to remain focused. You know, present us with some information; tell us a real-life story. Provide us with some more information, tied into something that really happened. I think jumping back and forth between the visuals, the stories, and sharing experiences really made the class just fly by.

The use of hook activities. Another recommendation that was implemented in this curriculum based on a review of the adult training literature was the use of "hook"

activities early in the training sessions. A hook activity was considered to be a high-interest activity that immediately engaged the course participants in the key training objectives early in the course and motivated them to be heavily invested in the future learning opportunities throughout the course. The researcher planned two hook activities early in this training. The first hook activity was the pre-test real-time crisis simulation that was completed during session one. The second hook activity was the i-movie on the nature of school crises that was presented near the beginning of session two.

The feedback on the pre-test simulation during the first session clearly indicated that this hook activity met the intended purpose. All of the course participants, based on their critical incident questionnaire responses, reported that this simulation activity and the subsequent debriefing were the most interesting and most helpful aspects of the first session. One respondent described the simulation as eye opening and said that she already felt more prepared by having such a life-like experience. Another adult learner, at the end of the first session, said that she now wanted to use the training she would receive throughout the rest of the course to help internalize the steps needed to effectively respond to a crisis at her school. A third participant summarized the key purpose of this hook activity, stating, “I think that through today’s simulation, I now have new questions regarding a crisis that I look forward to finding answers for as the class continues.” Clearly, this individual was “hooked” on the course objectives as a result of participating in the pre-test simulation activity.

The use of the i-movie as a hook activity during the second session did not meet with such clear results. The content in the i-movie has been described in detail in Appendix C. In summary, the i-movie, which was developed by the course instructors,

used a video format to demonstrate the nature of school crises and the feelings and reactions experienced by students and staff in the school communities impacted by actual crises. The i-movie combined interviews, writings, and songs from students and staff members in the school district and covered topics related to the experience of loss, the impact of loss, coping and helping, changes due to loss, and memories.

On a positive note, the i-movie on the nature of school crises was well received by all of the class members. Based on the critical incident questionnaire responses collected at the end of the second session, most of the participants indicated that the movie was the most interesting part of the class and was one of the most effective teaching techniques for that session. For example, one of the respondents stated, “The video was powerful! [The i-movie] set the mood for the seriousness involved and the range of impact.” Another person called the i-movie profound and recommended that segments of the movie be shown to students and teachers at every grade level.

However, as the course participants reflected on the scope and sequence of the course activities during their focus group conversations, the i-movie was a key topic of discussion. Although all of the participants indicated that the i-movie was highly interesting and powerful, some of the class members believed that the video would be more effective later in the course. There were various reasons for this recommendation.

First, some of the class members reported that they were not comfortable discussing their feelings and reactions to the movie so early in the course, as they did not know everyone that well. They felt that the movie led to a wide range of emotional reactions that they could have discussed, but did not have the comfort level to talk openly about that early in the course. One of the participants described this feeling very well,

noting, “It took me a lot to recover from that movie. I was afraid if I opened my mouth, I would fall apart. So I just didn’t open my mouth.” The members of this focus group remembered that the class was uncharacteristically quiet during the debriefing following the i-movie and concluded that people did not yet feel comfortable discussing their emotional reactions so early in the course.

The course participants also felt the i-movie would be even more powerful and lead to more group discussion if it was shared later in the course when the class members had a greater knowledge base about crisis preparation and response. A number of the focus group respondents said that they understood many aspects of the i-movie but did not have a good context for all of the key points that were discussed throughout the movie. These individuals believed that if they had watched the movie toward the end of the course, they would likely have gained more from the experience and would have benefited from a much richer discussion about the various topics covered in the movie.

Patterns and Themes Related to the Scope and Sequence of the Curriculum

The focus group discussions were the critical data collection tools used to help identify themes and patterns related to the scope and sequence of the curriculum. Overall, the feedback on the curriculum scope and sequence was very positive. With regards to the scope of the course, the participants consistently reported that the topics covered in the class were comprehensive, thorough, and provided a wealth of important information. After the participants were asked about the sequence of the course in the focus groups, the members of both focus groups agreed that the sequence made sense and the lessons built on each other. One person mentioned, “By building [the course] in a very logical way, it didn’t seem as overwhelming.” Another participant stated, “I think

they did a nice job overall of taking all of the information that is available on crisis . . . and distilling that down into a nice sequence.”

The participants did make a few recommended changes regarding the sequence of specific activities or content areas in the course. First, as was previously mentioned, some of the course participants thought the i-movie presentation and debriefing would be more effective later in the course rather than during the second session. The second suggested change involved the counseling components of the course. Since some of the participants wanted to spend more time on the counseling components, they felt that the key counseling concepts should follow the same sequence as the pre- and post-test simulation activities. Specifically, they thought the key counseling concepts should be introduced earlier in the course with opportunities to practice the skills from the beginning to the end of the course. By using this type of sequence, some of the class members believed they would feel more comfortable with their counseling skills exiting the course. Other factors related to this suggestion will be discussed in more detail later in this chapter.

*Patterns and Themes Related to Feedback and Suggestions on Specific Content Areas
and/or Teaching Strategies*

The researcher then looked at the feedback on specific content topics and teaching strategies to gather more suggestions for improving various components of the curriculum. As with the other feedback discussed in this chapter, the participants were overwhelmingly positive about almost all aspects of the curriculum and teaching techniques. Based on the positive feedback that was received, many of the course participants seemed to share the view of the participant who stated, “I wrote the same

thing every week. I said [change] nothing. I didn't feel anything was a waste of time or a useless few minutes even. I felt everything was appropriate, and I enjoyed it." Since most of the positive comments on the curricular content and teaching strategies have been covered elsewhere in chapter four, these areas will only be covered briefly here. More emphasis will be placed on the specific strategies or topics where changes were recommended.

Important Content Areas

All of the main content areas covered in this course were identified by most of the participants as being important and/or informative. There were many key content areas that were mentioned frequently by the participants as being critical and where no changes were recommended. These content areas included the topics of developmental grief responses, the steps and strategies for preparing for and responding to crises, supports for staff members during a crisis, lessons learned, requirements for verifying information about a crisis event, and methods for developing appropriate memorials. Some of the counseling skills and strategies covered in the curriculum were also consistently well received by the participants. The participants reported that the content related to counseling strategies for working with students was very helpful, as well as the discussion of the National Organization of Victim Assistance (NOVA) and Critical Incident Stress Management (CISM) group crisis response models.

Suggested Changes to Content Areas

Based on a review of all of the feedback from the course, there was only one theme found across the participants' responses on the assorted data collection tools that related to a suggested change of a content area. This theme centered on session six,

which covered the various counseling skills and strategies. The theme that emerged from the participants' responses did not focus on removing or changing specific content, but instead emphasized the need for more time and practice on the various counseling skills and strategies covered in this session. The participants in both focus groups suggested that more time be spent on these counseling topics and activities. Specifically, the members of each focus group wanted more time to discuss the various counseling skills and strategies, the skills to be presented across more sessions, and more time to practice the different counseling skills that were discussed. For example, one of the focus group participants noted:

If [the counseling] was offered earlier in the course then it could be a developed skill . . . with continued practice . . . just as in our team planning a crisis response we feel so comfortable now after going through all of the simulations, we would also feel more comfortable with the counseling too.

As a result of these discussions in the focus groups, both groups, independent of each other, suggested that the class could be offered as a longer course. One focus group recommended that the course be extended, with at least one or two additional sessions covering the counseling skills. The members of the other focus group suggested that the crisis curriculum be offered as two separate one credit courses. Based on this recommendation, they felt the first one credit course could cover the crisis preparation and response strategies, with the additional time used to cover the content in more detail and to practice the skills with more simulations. The second one credit course could focus on the developmental grief responses and expand on the counseling content that was covered briefly in session six. By separating the counseling content and skills into a

separate course, the respondents felt that there would be many more opportunities to practice the individual and group crisis counseling skills in-depth. This would give the psychologists and counselors in the class more time to hone their crisis counseling skills in a safe environment and would help any teachers taking the class feel less overwhelmed, as counseling skills that might be new to them would be introduced more gradually, with more opportunities for discussion and practice.

Important Teaching Strategies to Enhance Learning

Most of the teaching strategies that were identified by the course participants as being effective have already been identified and discussed in this chapter. For example, the participants' responses on the critical incident questionnaires consistently listed the simulation activities, the PowerPoint handouts with space for notes, the many opportunities for discussions and questions, and the variety of teaching formats used throughout each session as being highly effective. Because these strategies have been mentioned and/or discussed elsewhere in this chapter, they will not be discussed in detail here. Two other themes related to important and effective teaching strategies emerged based on a review of the feedback provided by the participants. These two themes involved the importance of using real-life examples from actual crises to emphasize key points and the benefit of providing the participants with resources they could use at their own schools after the course was over.

The importance of sharing experiences from previous crises. The school-based professionals participating in this course continuously emphasized the value of the real-life examples from previous crises that were shared by the co-trainers. In fact, this teaching strategy was the second most mentioned effective strategy across the various

data collection tools, trailing only the simulation activities in the number of positive references. As one participant stated, “It helped having two people who were involved in crisis response, just from the perspective that they could kind of sprinkle stories from actual crises throughout each lecture.” The course participants reported that in addition to making the class more interesting, the storytelling and real-life examples helped enhance the learning experience by making the material in the course more meaningful and relevant and by providing a structure for learning and remembering key points.

While the benefit of the examples from previous crises was frequently mentioned in the critical incident questionnaires responses, the focus group discussions led to many of the comments about the importance of the real-life examples in increasing the relevance of the overall training. For example, one of the course participants said that examples taken from actual school crisis responses “happening at other schools right down the street” made her realize that these situations could happen at her school at any point. A member of the other focus group noted, “When things are going on in your own backyard, you have a tendency, I think, to identify more.” Another person in this group then added, “I definitely had the feeling that I could be dealing with this at any point.” Thus, the relevance that these actual examples brought to the training seemed to help the participants focus on the key concepts related to crisis preparation and intervention.

Likewise, a number of the class members indicated that the real-life examples from actual school crises enhanced their learning of key concepts. One focus group participant shared this view when she said, “You never got tired of listening to the stories . . . and it kind of helped in the remembering. So when we sat down today to do [the post-test simulation] it was part of their storytelling that really helped.” Another school-

based professional from the course had a similar reflection on his or her personal learning goals, stating, “To hear about what has happened at other schools and how they have handled the situations has been great. It definitely helped with the learning process.” Based on this theme, the use of real-life examples and storytelling by the co-trainers seemed to help the participants engrain the key concepts that were covered in the class. Ultimately, the stories may help the course participants apply some of these concepts as they respond to future crises, as was noted by the focus group member who said:

I think that is just one of the things we all got from this class . . . going in our different directions, we have sort of a framework and an expectation and an understanding of what the county’s learned from so many of their experiences, so if we are at an actual crisis, we can say, ‘based on some other things that have happened . . .’.

The importance of providing resources for the course participants. The other theme that became apparent while reviewing the feedback on the teaching strategies was the importance of providing the course participants with various resources that they could use at their schools in the future. The class members discussed these various resources during the focus groups, on the critical incident questionnaires, and while responding to their personal learning goals. Some of the resources that seemed most appreciated were sharing the crisis kits from a few schools in the district (session three), the lessons learned handout (session five), and the examples of literary resources for helping children and adults in crisis (session six). One focus group participant found this to be a very important part of the class, as she felt she benefited from the co-trainers “providing resources for things that maybe they weren’t able to go as in depth on . . . on where you

could find additional information, or where additional supports from within the county would be if you needed them.” Based on the various responses related to this theme, the course participants valued having actual examples and copies of materials that they could take back to their schools to use for future crises and/or crisis trainings with their teams.

Suggested Changes to Teaching Strategies to Enhance Learning

As has been mentioned before, the overall feedback on the course content and teaching strategies was very positive. As a result, there were very few patterns or themes in the feedback related to changes that should be made to the teaching strategies used in the course. There were some minor issues that were touched on by a few course members at different times during the course. For two sessions, a few participants mentioned that a PowerPoint presentation and discussion seemed long or had duplicated some content covered the previous session. The researcher had also indicated similar concerns in his field notes and altered the PowerPoint presentations to address this concern for future trainings. Likewise, a few of the participants requested that breaks be more consistent, as they did not want to miss the content being discussed but sometimes had a hard time sitting for long periods of time in an evening class.

There were two other important suggestions that could definitely be applied to future trainings. First, a number of the course participants wanted there to be time for a more structured debriefing following the different simulation activities. Specifically, these participants were interested in having the co-trainers outline what a “good” response would look like by talking about the various steps and strategies that should have been implemented. However, if this technique is used in future trainings, the co-

trainers will need to ensure that the course participants don't feel that their performances on the activities are being compared or evaluated.

The second suggested teaching strategy that could definitely be applied during future trainings might address this concern. During the focus group discussions, the members of both focus groups talked about the benefits of seeing the co-trainers model certain counseling skills. As one participant stated:

One thing that was really helpful that maybe they would look to build on a little bit more is at the end of one class they did a role-play for us, and how they would handle it . . . and that was just helpful to see how they would handle that situation.

Based on this feedback, the researcher could look for more opportunities to model difficult skills throughout the experiential learning activities. By modeling the skills rather than just analyzing what a "good" response would look like, the co-trainers could provide the same type of feedback in a less evaluative manner.

Summary of Research Findings

Overall, the patterns and themes that emerged throughout this study were very positive. As the effectiveness of the course was evaluated, the findings from the three research questions consistently demonstrated that the participants learned a great deal and that their ability to successfully identify and apply crisis response skills improved throughout the course. In addition, the crisis simulation activities that were designed and implemented as a critical aspect of the curriculum appeared to be highly effective tools for learning, practicing, and assessing crisis response skills in a realistic, yet safe way. Finally, the participants all indicated that the overall scope and sequence of the

curriculum was well organized and effectively met the intended purposes of both the researcher and the course participants.

The participants also provided feedback that could be used to improve the course curriculum by making minor changes to the curriculum content and teaching strategies. Many of these changes involved fine-tuning the length and content of the PowerPoint presentations. Other suggestions for improving the course included having the co-trainers provide examples of “good” simulation responses and building in more time for the co-trainers to model the various skills that were practiced by the course participants. Likewise, the course participants reported that they would have liked more time to discuss and practice certain topics, especially during the session covering crisis-counseling skills.

CHAPTER V

DISCUSSION

This study reviewed the development, implementation, and evaluation of a comprehensive crisis preparation and response curriculum. The first key goal of this research focused on designing a comprehensive training curriculum for school-based professionals. This goal was achieved following a thorough review of the existing literature on school-based crisis preparation and response, as well as the research on effective strategies for enhancing adult learning. Based on the information found in the existing literature and the researcher's own crisis response and training experiences, the guiding principles and objectives for the training were outlined (Liamputtong & Ezzy, 2005; Marshall & Rossman, 1989). After the scope and sequence of the curriculum were developed, a group of experienced crisis responders and trainers from the researcher's school district reviewed and provided feedback on the curriculum. Critical components of the curriculum, such as the real-time simulations, were also piloted before the curriculum was implemented to ensure that the activities were realistic and the directions were clear so that the participants would be able to effectively practice and learn critical crisis response skills (Gosen & Washbush, 2004; Peters et al., 1998; van Ments, 1989; Zachert, 1978b). In addition, a scoring rubric for measuring the simulation responses was developed and piloted prior to the implementation of the course curriculum.

The second key goal of this study was to implement the course curriculum with a group of school-based professionals. First, the researcher received approval from his local school district and the state's Department of Education to offer the 15-hour comprehensive crisis preparation and response curriculum for continuing professional

development credit. After this approval was obtained, the course curriculum was implemented over seven sessions with a class of 12 school-based professionals.

The third key goal of this study was to evaluate the effectiveness of the course curriculum based on the three research questions guiding this study. The first of these three research questions looked at whether the course participants demonstrated learning and behavior changes on their crisis preparation and response skills across the different evaluation tools used in this study. The second research question was to ascertain the effectiveness of using crisis simulations during the course as a training tool. The course participants responded to the simulations in groups while practicing the application of their crisis planning and response skills. The final research question looked for ways to improve and fine-tune the crisis curriculum by collecting detailed feedback on the course from the school-based professionals who took part in the training. The following discussion will address the research findings for each of these key research questions.

Discussion of Findings for Research Question One

The first research question in this study explored the changes in learning and behavior that were discussed and demonstrated on a variety of measures throughout the crisis course. A number of themes and patterns related to this research question were reviewed in Chapter IV: Results. Based on these identified themes and patterns, the crisis preparation and response curriculum developed and implemented in this training appeared to meet this intended research objective. Specifically, the course participants demonstrated verbally, in writing, and in practice that there were positive changes in their behaviors and learning as a result of taking the course that was developed and implemented for this study. On a group level, the findings indicated that two separate

groups of course participants greatly improved their crisis response planning skills during simulated crisis activities from the beginning to the end of the course based on a comparison of their pre-test and post-test simulation rubric scores. Likewise, the individuals in the course provided a wealth of positive feedback regarding their self-perceived learning as they completed their personal learning goals, the critical incident questionnaires, the district's professional development feedback form, and the focus group discussions. The themes and patterns reviewed in Chapter IV highlighted the participants' increased comfort level applying crisis preparation and response skills during simulations, their reported internalization of these skills, and their intent to take more direct roles on their school-based crisis teams. The findings from this research question indicated that as a result of participating in this course, the school-based professionals felt that this increased knowledge and experience would help them be better able to apply critical crisis preparation and response procedures in the future during actual crisis situations at their schools. Thus, the findings for this research goal appear to be very positive, as numerous examples of learning and planned behavior changes were identified across a number of measures.

As a result of these findings, the development, implementation, and subsequent evaluation of this crisis preparation and response curriculum should help advance the existing literature base on crisis training for school professionals. As was discussed in previous chapters, there have been many recommendations about the critical crisis response skills that should be included in trainings for school-based professionals, despite the lack of rigorous research supporting many of these recommendations, the lack of research outlining an effective scope and sequence for crisis trainings, and the lack of

evidence documenting changes in the learning and behaviors of individuals participating in these types of crisis training courses (Brock & Jimerson, 2004b; Brock & Poland, 2002; Nickerson & Zhe, 2004; Pagliocca & Nickerson, 2001; Pagliocca et al., 2002; Poland, 1994). This study adds to the literature on crisis preparation and response by confirming that school-based professionals can demonstrate successful learning outcomes and positive behavior changes across a variety of measures as a result of participating in a rigorously developed crisis training.

Discussion of Findings for Research Question Two

The second research goal addressed the effectiveness of the crisis simulations as training tools. The themes and patterns that emerged from the participants' feedback demonstrated that the crisis simulations were in fact highly effective training tools. In summary, the participants indicated that the crisis simulations were an excellent way to practice their developing crisis preparation and response skills, helped them practice these skills in a realistic way as a member of a team, seemed to be as challenging or even more challenging than responding to actual school crises, and provided the additional benefit of allowing them to see their own growth from the beginning to the end of the course. In fact, the feedback from the school-based professionals taking the course consistently indicated that the crisis simulation activities were the most interesting, effective, and requested teaching strategies utilized in the crisis preparation and response curriculum.

The researcher, who also acts as a co-leader of his district's crisis response team, has also had the chance to use various crisis simulations and the scoring rubric from this study as a training tool with other crisis intervention team members in his district since

the curriculum implemented in this study was completed. An interesting pattern has emerged after completing the simulation activities with experienced crisis responders that provides a better context for the learning that occurred as part of this study. Specifically, the researcher has facilitated and scored simulation activities with four groups of experienced, highly trained crisis responders from his school district's district-level crisis response team using a similar methodology to the one used in this study. Three of the groups of experienced crisis responders earned total rubric scores in the mid 50s, with the fourth group earning a lower score. These scores were comparable to the scores of 56 and 57 that were earned on the post-test simulation by the two groups in this study. Based on this informal comparison, school-based professionals who entered this course with little or no formal crisis training or crisis response experience were, by the end of the course, applying crisis intervention strategies during simulated crisis activities at a level similar to that of experienced crisis team members.

While these newly trained school-based crisis team members were able to perform at a similar level to highly trained and experienced crisis responders on the simulation, the fact that none of these groups earned scores above the mid 50s may indicate that the current simulation procedures could have a built-in ceiling effect. Each of the groups participating in the simulation activities at the end of the course and during the district-level crisis team training was given 45 minutes to complete their simulations. Since none of the groups were able to earn a score higher than the mid to upper 50s on the rubric, future participants may need to be given more time so that they have an opportunity to demonstrate a wider range of crisis response skills. However, future course instructors must also remember that the purpose of conducting a time-limited

simulation is to add to the realism of the activity. Providing future simulation participants with too much time could reduce the sense of urgency and anxiety the groups would experience as they responded to the simulation, thereby decreasing the realism of the simulation.

In summary, the development, application, and successful evaluation of the crisis simulations used in this study appear to have many exciting applications for future training efforts. As was discussed earlier in this research study, some of the key difficulties in training effective crisis responders have been that actual school crises occur infrequently, are difficult to predict, and do not particularly lend themselves to training and research purposes (Borodzicz, 2004; Brock et al., 2001; Dziegielewski & Powers, 2000; Moore et al., 2003; Pagliocca & Nickerson, 2001; Pitcher & Poland, 1992; Quanjel et al., 1998). These factors have hampered training efforts in many school districts, especially when one considers the limited opportunities many newly trained crisis team members have to practice applying their crisis planning and response skills. Therefore, the training model used in this research, which combined a rigorously developed curriculum with in-depth crisis simulation activities, provided the course participants with the opportunity to immediately apply newly learned skills in highly realistic but safe group settings, with the chance to reflect on and discuss their decisions and reactions during the debriefings that followed the simulation activities. When the researcher's findings from this study were informally compared with the simulation performance of experienced responders, the participants in this study appeared to be able to apply crisis preparation and response skills similar to other highly trained and experienced crisis responders. Thus, the use of in-depth crisis simulations as a part of any curriculum

designed to train beginning crisis responders is highly recommended based on the findings in this study. Likewise, although not considered in this study, the use of these simulation activities with experienced crisis responders should be considered as a part of any crisis training curriculum, as the crisis simulations likely provide a realistic means for practicing and maintaining previously developed crisis response skills. These additional opportunities to practice applying skills can be especially important for trained team members given the infrequent and unpredictable nature of school crises.

Discussion of Findings for Research Question Three

The third research question identified themes and patterns that could be used to improve the crisis preparation and response curriculum for future applications. Overall, the themes and patterns that emerged across the various data collection tools confirmed that the course curriculum was well developed and met the intended goals of both the co-trainers and the course participants. The course participants consistently praised the key principles of adult learning that were utilized in the design and implementation of the course curriculum, including the use of experiential activities to practice newly learned material, the use of multiple teaching formats, and the provision of a safe learning environment with many opportunities for open discussion and questions (Costa & Garmston, 1994; Klatt, 1999; Kolb & Lewis, 1986; Lawson, 2000; Rogers, 1996; Taylor et al., 2000). Likewise, the scope and sequence of the curriculum and the various topics covered throughout the seven sessions were well received by the course participants. Thus, very few changes to the curriculum were identified by the co-trainers and/or recommended by the school-based professionals who participated in the class. Table 9 summarizes the various modifications that were described in Chapter IV: Results,

Table 9:

Proposed Changes to the Crisis Preparation and Response Curriculum

Curriculum Session	Proposed Change
Sessions 2 through 6	Minor changes to PowerPoint slides to improve flow
Session 2	More time for participants to explore personal grief buttons
Session 2	Consider using i-movie presentation later in course
Session 2/3	More time to review developmental grief responses
Session 6	More time to discuss and practice counseling strategies and skills earlier in the course
General suggestion	Provide more structured debriefings of experiential activities, with “correct” responses shared and discussed
General suggestion	Increase the amount of trainer modeling of various skills
General suggestion	Expand into longer course, with additional time added for counseling strategies and skills

including adjustments to specific course sessions, the sequence of the course, specific teaching strategies, and curricular content.

Due to the success of the curriculum in meeting the needs of the course participants, the majority of the recommended changes were actually requests from the participants to spend more time on specific topics. Thus, one of the main themes that evolved from this research question was that all of the material covered in the course was important and appropriate. In fact, the course participants wanted to spend more time addressing a number of the content and skill areas. In particular, the participants recommended providing additional time in future classes for discussing and practicing

the crisis counseling skills, as they all agreed that this was the area of the curriculum they felt the least comfortable with at the end of the class. The course participants who had a counseling background, such as the school counselors and psychologists, believed that they needed more time to practice in-depth crisis counseling skills through individual and group role-plays. In comparison, the course participants without any counseling training, such as the teachers, reported that they felt overwhelmed trying to cover the basics of crisis counseling in such a short time and were not comfortable applying any of the skills during a role-play activity. Based on these concerns, a fifteen-hour course may not provide enough time to cover all of the recommended strategies and procedures for effectively developing crisis preparation and response skills while also introducing basic crisis counseling skills and procedures. A model for addressing these concerns will be discussed in detail later in this chapter, when implications for future practice are discussed.

Limitations of Current Study

While this study demonstrated many positive findings, a number of limitations must also be considered. First, the researcher in this study played multiple key roles throughout the development, implementation, and evaluation of the course, with these dual roles potentially impacting the accuracy of the data that was collected. Specifically, the researcher developed the course curriculum, served as a co-trainer while the curriculum was implemented, used personal observations via field notes as one of the data collection tools, and collected feedback on the curriculum and teachings strategies from the course participants following each training session. Banister et al. (1994) noted that experimenter effects in qualitative studies such as this one could act as a limitation.

To increase the likelihood that the participants would provide honest and accurate feedback on the content and teaching strategies used in this curriculum, the researcher repeatedly emphasized that the provision of honest, constructive feedback was critical for improving the training for future participants and was consistent with the goals of this study (Klatt, 1999). The researcher also utilized other methods to maximize the probability of the participants sharing accurate opinions on the course curriculum, such as giving the participants the opportunity to provide anonymous feedback on the various data collection tools (Klatt, 1999) and using neutral focus group facilitators (Munby et al., 1999). However, even with the use of these strategies to minimize participant bias, the multiple, direct roles taken by the researcher was a potential limitation of the current research.

A second key limitation of this study was that future trainers could have difficulties generalizing the study findings due to the experience level of the co-trainers who taught the crisis curriculum used in this research. As has been previously mentioned, the co-trainers in this study had extensive experience as crisis responders and crisis trainers in their school district. Their experiences as trainers and responders allowed them to provide real-life examples, consider lessons learned from other trainings and crises, and respond flexibly to concerns and questions raised by the course participants. These factors likely had a positive impact on the participant outcomes discussed in Chapter IV. Due to this potential limitation, various recommendations for increasing the likelihood of generalization by using highly experienced trainers will be discussed later in this chapter, when future practices are considered.

A third limitation of this study was related to the lack of rigorous research currently available regarding school crisis preparation and response procedures and the development and implementation of crisis trainings for school-based professionals (Brock & Jimerson, 2004b; Brock & Poland, 2002; Croft, 2005; Nickerson & Zhe, 2004; Pagliocca & Nickerson, 2001; Pagliocca et al., 2002; Poland, 1994). While the researcher made every effort to include research-based strategies in the development and implementation of the curriculum used in this study, the dearth of research in the field means that the goals and objectives targeted by the current curriculum will likely change as more research is added to the existing literature base. Therefore, while this may be a limitation of the current study, the consideration of this limitation does have implications for future practice, as trainers who plan to use the curriculum from this study in future trainings should first consider the most recent research on school-based crisis preparation and response and crisis training to ensure that effective, research-based strategies and procedures are being targeted in the curriculum whenever possible.

Another limitation of this study was that the research design was not experimental in nature, and no comparison group was used to evaluate the significance of any learning that did occur. Based on the scope of this entire project, which included developing the curriculum and getting approval to implement the curriculum based on specific district and state guidelines, the researcher was unable to compare the participants' learning to a control group. Klatt (1999) noted that a major limitation of many trainings designed to change the behaviors and practices of working professionals has been the difficulty of attributing causality to the actual training content and methods as opposed to other factors that were unrelated to the training but led to changes in behaviors or work practices.

Thus, while the researcher was able to document that learning and behavior changes did occur across a variety of measures, the researcher could not clearly state that the school-based professionals' skill gains and learning were based solely on their participation in the course curriculum.

A fifth limitation in this study was that the scoring procedures used to measure learning and skill gains from the pre-test to post-test simulation activities did not account for individual skill development. The possibility exists that the improvements in crisis preparation and response skills demonstrated by the two groups of responders were due to skill gains made by only a few of the individuals rather than most or all of the professionals taking the course. Since the only measures of individual learning used in this study were based on the individuals' own perceptions, there was no objective evidence documenting that meaningful individual skill gains were made by any of the course participants. The ability of the researcher to attribute skills gains to individual course participants was further limited by the length of the course, the manner in which the course was structured, and the data collection tools used in this study.

An additional limitation of this study was also related to the use of the crisis simulation activities. For the purposes of this study, the researcher examined the participants' abilities to apply crisis preparation and response skills during simulated crisis situations. By using this methodology to look at the participants' crisis response "readiness", the researcher inherently made the assumption that the participants' abilities to apply these skills during a simulation activity would positively correlate with their application of the same skills and procedures during an actual crisis situation. Gosen and Washbush (2004), in their review of various simulation-based training programs, came to

the tentative conclusion that students who successfully handled situations while participating in simulation activities generally were good problem-solvers in real-world situations as well. However, other authors have warned that simulation activities cannot match the true complexity of real-world situations, and therefore may not be a realistic way to accurately predict an individual's future performance in a real-life situation (Adams, 1973; Evans, 1979; Pollack, 1973). Until further research can clearly demonstrate that an individual's or group's ability to perform successfully on crisis simulation activities directly correlates to their effectiveness during an actual crisis response, the current findings must be interpreted with caution (Brock & Poland, 2002; Pagliocca & Nickerson, 2001; Pagliocca et al., 2002).

A final limitation of this research involved the lack of long-term post-testing using crisis simulations to measure the maintenance of any learning and behavior changes over time. Numerous researchers have highlighted the need for ongoing crisis training for school staff, particularly those directly involved in crisis response (Brock et al., 2001; Decker, 1997; Jimerson & Huff, 2002; Kline et al., 1995; Trump, 2002). This ongoing training is especially important given the infrequent and unpredictable nature of crisis response, as many trained responders have limited opportunities to apply their crisis intervention skills over the course of a school year. In fact, many of the highly trained crisis responders in the researcher's school district typically have responded to only one or two crises per school year. This means that to be effective, these responders must be able to maintain their skills at a high level over extended periods of time. Ideally then, the effectiveness of a comprehensive crisis preparation and response curriculum would not just be measured by the participants' performance on a simulation at the end of the

course, but would also include a reassessment of their abilities to apply these critical skills a number of months after the completion of the course. However, because the course taken by the participants in this study was approved by the state Department of Education and was offered for continuing professional development credits, specific requirements needed to be followed. One of these requirements restricted the time commitment of the participants to fifteen hours, and also limited the time span within which the entire course could be completed, thereby negating any opportunity to implement long-term follow up measures. While this clearly limited the scope of this study, the majority of trainings offered for adult learners across various settings likely suffer from this same limitation.

Implications for Practice and Future Research

Implications for Practice

The findings from this study have a number of implications for future professional practice, especially when one considers that school systems are increasingly being given legal mandates to be prepared to respond to potential crises (Brock et al., 2001; Jacob & Feinberg, 2002; Pagliocca & Nickerson, 2001). These implications for practice include suggestions related to the implementation of the curriculum and the use of various teaching strategies, data collection tools, and the simulation activities to further improve the crisis response capabilities of school-based professionals. The recommendations for future professional practice discussed in this section are summarized in Table 10.

The key goal of this study was to develop and fine-tune a crisis training curriculum that could be effectively used to train new team members as they enter a school district and/or join a school's crisis team. The results of this research clearly

Table 10:

Recommendations for Future Practice

Target Area	Recommended Strategy
Curriculum Implementation	<p>Periodically offer the course to new school-based team members</p> <p>Offer as a longer course or two separate courses covering crisis responses skills/strategies and crisis counseling skills</p> <p>Consider offering trainings multiple times during the year for skill maintenance, with at least two group simulations offered each year</p>
Teaching Considerations	<p>The use of adult learning strategies is important and effective</p> <p>The trainers implementing the curriculum must have the necessary experience base and comfort level with crisis preparation and response</p>
Data Collection Tools	<p>The personal learning goals activity may be beneficial to use with any multi-session training for adults</p> <p>The rubric may be a helpful tool while teams plan and debrief actual crisis responses</p> <p>The rubric should be expanded to include all aspects of crisis response, including activities in the days/weeks after a crisis</p>
Simulation Activities	<p>The simulations foster the learning and practice of critical crisis response skills in a safe environment and can be adapted to realistically fit a variety of school cultures/communities</p> <p>The simulations can be offered as booster sessions to help teams maintain their crisis readiness</p>

support the use of the current curriculum for this endeavor, as the course participants indicated that their experiences taking the course were very positive and the researcher was able to demonstrate that the participants learned and were able to apply critical crisis planning and intervention skills by the end of the course. Given the success of the curriculum in meeting this goal, a clear recommendation for future practice in the researcher's school district, as well as any other school district attempting to develop teams of prepared crisis responders, would be to periodically offer the course for newly hired employees who are expected to be active members of their schools' crisis response teams. In this scenario, the course could be offered every two to three years as part of the professional development continuum. This practice would ensure that all of the district's crisis team members were given the opportunity to build a strong foundation of basic crisis preparation and response skills and that this foundation was consistent across individuals and school teams.

While more research is needed to determine the most efficient and effective ways to train school-based professionals in crisis preparation and response procedures, some tentative recommendations can be made regarding future practices based on the findings from this research and the researcher's experiences as a crisis trainer. First, as was previously mentioned, all newly hired school-based professionals who will be expected to serve as members of their school-based teams should initially be intensively trained to ensure that they have the prerequisite skills and comfort level to respond if a crisis occurs. In addition to this initial training, all of the crisis responders in the district should participate in trainings throughout the year to maintain their basic crisis response skills and develop more advanced skills. In the researcher's school district, the crisis team

leadership group offers trainings for school-based crisis team members four times per year. Additional trainings are available to the members of the district-level crisis team. This researcher believes that at least two of these trainings should include opportunities to participate in simulated crisis activities so that the potential crisis responders can practice using these skills in a realistic way.

Some of the recommendations regarding the curriculum used in this study may also have other implications for future practice. As was discussed earlier, one key theme that emerged was that the course participants believed that the course could be longer. The various counseling strategies and skills in the current curriculum were highlighted as an area of the course that could be expanded upon in future trainings. A solution discussed by the course participants during both focus groups would address this concern and, subsequently, would also allow more time to address the other participant suggestions summarized in Table 9. Specifically, the course participants felt that the course curriculum would be as effective or even more effective if the course was offered across more days or in the same number of days but with longer sessions. The co-trainers agreed that there would be many benefits to expanding the curriculum, as at times they felt rushed as they covered certain topics. In addition, the course trainers recognized that session six, which reviewed crisis counseling, focused more specifically on applied crisis *counseling skills* that might be useful to only some of the future course participants in their jobs. In comparison, the content covered in sessions one through five and session seven targeted applied crisis *response strategies and procedures*, which would be appropriate for any school-based professionals interested in taking the course.

Therefore, one recommendation for future practice based on the feedback received throughout this study would be to break the course into two separate trainings. The first fifteen-hour training would cover the crisis preparation and response strategies and procedures from sessions one through five and session seven in the current curriculum. The counseling skills and corresponding activities from session six in the current curriculum would not be offered during this fifteen-hour training. This change would add almost three hours of additional training time that could be used to cover other topics in more detail, provide more time for modeling by the co-trainers, and allow additional opportunities to review and debrief the experiential activities and simulations. Then, a separate crisis counseling course could be developed and offered. This course could be scheduled across a number of sessions to expand on the skills discussed and practiced during session six of the current curriculum. By offering this content in more detail and across multiple sessions, the participants would hopefully feel more confident with their skills by the end of the class and have more opportunities to practice and receive feedback on these skills. In addition, developing the course as two separate but complementary classes would allow potential participants to select the most appropriate course offerings to meet their individual needs.

A number of the teaching strategies and data collection tools used in this study also have implications for future practice for any practitioner involved in training school-based personnel in crisis response procedures. From an instructional standpoint, the current study clearly demonstrated the importance of incorporating effective strategies for adult learning (e.g., experiential learning, safe learning environment) in any training designed for school-based professionals, as the class members consistently praised the

use of these strategies throughout the class. The researcher believes that the use of these recommended strategies for facilitating adult learning is especially critical in trainings related to crisis response, because these trainings tend to cover topics that naturally lend themselves to the use of these various instructional strategies.

The researcher also found that a number of the data collection tools used in this study may have implications for future practice. For example, the use of the personal learning goals activity at the beginning of the course was a very helpful tool for the co-trainers. This data collection tool was designed to get the participants' feedback at the end of the course regarding their perceived learning on individual goals they had identified at the beginning of the course (Klatt, 1999). While the personal learning goals activity met this intended purpose, there was also an additional benefit of using this type of measure early in the training curriculum. Specifically, this activity helped the co-trainers clearly understand the learning priorities of the class participants at the beginning of the course. This allowed the co-trainers to ensure that the objectives covered in the curriculum targeted these personal learning goals and likely made the course a better training experience for all of the participants. Based on the success of this activity, the researcher would strongly recommend using this tool in other adult trainings spanning multiple sessions, regardless of the training topic.

The rubric that was developed by the researcher to measure the groups' crisis response strategies on the pre- and post-simulations also has interesting applications for future trainings and school-based practices. This rubric was designed based on the existing recommendations regarding effective crisis planning and response, and therefore provided a comprehensive outline and scoring system that potentially could be used to

help in the planning or evaluation of an actual crisis response. For example, school-based crisis teams could use the rubric as a checklist during their planning meetings immediately after a crisis has occurred to ensure that they address all of the necessary steps as they delineate the strategies they will use to respond to the crisis. Various experts in the field of school-based crisis intervention have previously discussed the benefits of using these types of checklists when planning a crisis response (Brock et al., 2001; Celotta, 1995; Decker, 1997; HCPSS, 2004a, 2004b; Johnson, 2000b; Lichtenstein et al., 1994; Petersen & Straub, 1992; Poland et al., 2001).

Likewise, many authors have highlighted the importance of teams conducting structured debriefings following a crisis response (Brock et al., 2001; Klicker, 2000; Kline et al., 1995; Metzgar, 2002; Newgass & Schonfeld, 2000; Obiakor et al., 1997; Petersen & Straub, 1992; Sandoval, 2002). The rubric could be an effective tool for guiding a crisis team debriefing. In this scenario, the crisis team members could complete the rubric as part of their debriefing procedures following a crisis response to identify the strategies and procedures that were actually implemented with integrity. This could help the team members systematically review the school's crisis response to better understand the team's strengths, as well as help them identify areas of need or any barriers that interfered with the implementation of specific strategies and procedures.

Before the rubric can be used as a comprehensive tool for helping to plan and assess a crisis response, the rubric likely would need to be expanded. The rubric used in this study was mainly designed to assess the crisis response team's ability to effectively plan for the first day of the crisis response. Therefore, the rubric did not account for many appropriate and necessary crisis response procedures that should be considered by a

crisis response team. For example, the rubric did not include many details regarding the types and amounts of counseling supports provided, the follow-up procedures that would be implemented in the days and weeks after the crisis, or the plans for memorial activities. Thus, this researcher believes that additional sections would need to be added to the rubric so that the guide could be a truly comprehensive tool for crisis teams.

Finally, the crisis simulations and simulation procedures developed for this study have many applications for future practices. As expected, these simulation activities were reported to be very interesting and motivating (Adams, 1973; Kolb & Lewis, 1986; Palmer & Snyder, 1986; van Ments, 1989; Zachert, 1978a) and allowed the participants to integrate and apply much of the material learned throughout the course (Adams, 1973; Hendricks, 1985; Hertel & Millis, 2002; Palmer & Snyder, 1986). The simulations used in this study were an effective method for learning and practicing critical crisis response skills in an ethical manner and safe environment, which were important benefits of this type of activity (Boin et al., 2004; Gilliland & James, 1993; Hendricks, 1985; Hertel & Millis, 2002; Peters et al., 1998; van Ments, 1989; Westwood, 1994; Wood et al., 1997). The participants were given the opportunity to practice skills as members of a team, which also allowed them to experience the various group communication and collaboration skills needed to provide an effective crisis response. A number of authors have previously discussed the benefits of practicing these interpersonal skills during simulation activities (Adams, 1973; Borodzicz, 2004; Hertel & Millis, 2002; Hoff & Adamowski, 1998; Sanci et al., 2002; Smith, 2004; van Ments, 1989; Zachert, 1978a).

In addition to using crisis simulations to practice newly learned crisis readiness skills in a safe environment, one of the course participants made a recommendation that

could have implications for future practice. This participant believed that the crisis simulation activities used in this study should be offered quarterly to help the school-based practitioners in this study maintain their crisis response skills. Brock, Sandoval, and Lewis (2001) made a similar recommendation when discussing the need for refresher courses and periodic crisis drills to ensure skill maintenance for trained crisis responders. This suggestion has already been partially incorporated in the researcher's school district's yearly crisis training model, as school-based and district-level crisis team members have been given the opportunity to practice their skills once or twice a year using various crisis simulation activities. Based on the findings of this study and the recommendation by the study participant and other researchers, the district-level crisis leadership team may want to consider other ways of making these "booster sessions" more consistently available to individuals and teams throughout the school year.

A potential benefit of using the simulation activities as a training tool is the flexibility with which the simulations can be used to meet the training needs and culture of a school community. The simulations used in this study were designed for school-based professionals in a large, suburban school district and were intense enough to educate a wide range of crisis response strategies and procedures. As they are written, these simulations would likely be realistic in many schools and school districts. Likewise, because the crisis scenarios, background information, and informational updates provided in the simulations can be adapted to meet the needs of the crisis trainers and simulation participants, a similar simulation structure using information relevant to the school district or school community would likely be effective across a variety of school settings.

While the simulations used in this study were designed to help the participants practice applying a wide range of crisis response procedures, the simulation activities are also flexible enough to be developed with a more narrow training focus. This would be appropriate when the crisis trainers want to practice and assess a specific set of crisis response skills as opposed to a broad set of skills. For example, the researcher has developed one simulation that emphasized the verification of appropriate information related to the crisis event and helped the participants practice determining what information was appropriate to share with students, staff, and the school community.

Another application of the crisis simulations for future practice involves the use of the activities to provide feedback on a school's crisis readiness. Crisis simulation activities could be completed by a school team and used to identify the strengths and weaknesses of a school-based team prior to training or to look at the readiness of a school-based team to respond to actual crises. Various authors have already cited simulation activities as a method of testing team preparedness, finding flaws in response strategies, and identifying lessons learned (Brock et al., 2001; Smith, 2004; Wood et al., 1997).

In addition to these recommendations for future practice, one limitation for future practice should be considered by anyone who is considering implementing this crisis curriculum, or for that matter, any crisis curriculum. Crisis preparation and response trainings, by their very nature, can raise emotionally charged issues that are often difficult to discuss and process in a group setting. Both the researcher and the co-trainer who implemented the curriculum described in this study had extensive experience responding to and consulting on school crises prior to this training, and both were in crisis response

leadership roles in their school district. The co-trainers also were experienced crisis trainers who had previously led many shorter crisis preparation and response trainings for varied audiences. Based on these previous crisis response and crisis training experiences, the co-trainers recognized the emotional nature of the course content and made sure to build-in extra time to process any emotionally laden content. The range of experiences the co-trainers brought to the training further allowed them to flexibly respond to questions and issues that arose throughout the implementation of the curriculum (Klatt, 1999). Thus, the researcher strongly recommends that other potential crisis response trainers consider their experience level and their comfort addressing these types of emotional responses before planning and implementing a crisis response training.

Likewise, in this study, the co-trainers' previous experiences responding to school crises provided them with many actual examples from real-life situations that they could use to highlight and/or clarify key topics covered in the curriculum. The real-life examples provided by the co-trainers led to opportunities for flexible, meaningful discussions across the various content areas, and the use of these "close to home" examples were consistently and repeatedly mentioned as a positive aspect of the curriculum by the course participants in this study. However, this specific feature of the training described in this study may be difficult to replicate in other administrations of the curriculum. Therefore, anyone who is considering leading a comprehensive crisis training using the curriculum from this study should carefully reflect on his or her experience base beforehand to ensure that he or she has the range of experiences necessary to provide appropriate examples as needed and respond flexibly to questions and discussions (Eaves, 2001; Klatt, 1999). Some of these same limitations and

considerations also provide further support for the use of co-trainers rather than an individual trainer, as two or more trainers with crisis experience would be more prepared to effectively manage grief-related issues that arise during a training session. This is especially true if a situation were to occur where one of the participants left the training room after becoming upset by a crisis topic covered in the course.

Implications for Future Research

The current study raises a number of implications for future research. These implications for future research are summarized in Table 11. The topics discussed in this section include the need for further empirical evidence in the field of crisis response and the possible applications that some of the tools used in this study may have in future research efforts.

Table 11:

Recommendations for Future Research

Recommendation

Collect more empirical evidence regarding effective crisis response procedures

Collect more empirical evidence regarding effective crisis response training methods

Collect more empirical evidence regarding the most effective and efficient methods for offering crisis trainings (individual vs. group trainings)

Investigate whether or not simulation activities can be used to accurately identify the strengths and needs of crisis teams prior to training

Investigate whether or not simulation activities can be used to measure the retention of crisis preparation and response skills over time following trainings

First, while this study clearly adds to the existing literature base on developing and implementing school-based crisis preparation and response trainings, much more empirical research is still needed to clarify the effectiveness of specific crisis response procedures, identify which of these procedures should be included in future trainings for school-based professionals, and determine whether providing these types of crisis trainings has a positive impact on actual school crisis responses in the district, thereby demonstrating criterion-related validity. In fact, many other authors have made similar recommendations, noting the lack of empirical research investigating the effectiveness of various strategies and procedures during a crisis response as well as the limited research regarding the development and implementation of training activities designed to prepare school personnel to manage crises (Brock & Jimerson, 2004b; Brock & Poland, 2002; Nickerson & Zhe, 2004; Pagliocca & Nickerson, 2001; Pagliocca et al., 2002; Poland, 1994). As a starting point, the simulation activities presented in this study provide a bridge between basic trainings and actual school-based crisis responses, but in the end, future research efforts still need to demonstrate that the goals, objectives, and teaching strategies targeted during crisis trainings directly correlate with improved responses in school communities following an actual crisis event.

The rubric that was designed in this study could provide one means of systematically evaluating the procedures and strategies applied during actual school crisis responses. Due to the difficult nature of collecting data in school settings immediately following a crisis event, much of the current research in the field is based on case study descriptions of individual responses (Petersen & Straub, 1992). For future research efforts, multiple crisis teams in a school district or across school districts could complete

a rubric like the one used in this study, so that over time researchers and practitioners could gain a better understanding of the actual strategies and procedures used to respond to a school crisis. If school crisis teams completed the rubric as part of the team debriefing procedures, and measures related to the perceived effectiveness of the crisis response were also collected (e.g., satisfaction surveys collected from members of the school community receiving the various crisis intervention services), researchers and practitioners might be able to better identify specific procedures and strategies that help to minimize the impact of a crisis event on a school community.

Another future research effort should examine the effectiveness of training individuals in crisis response as compared to training intact school crisis teams. Other researchers have noted the importance of implementing different evaluation designs to look at what methods of delivering crisis training are most effective (Brock & Jimerson, 2004b; Brock et al., 2001). All of the current literature on the topic of school crisis response supports using a team approach when responding to crises in a school setting rather than having one individual managing an entire crisis response. However, the curriculum used in this study, as well as in many other crisis courses, was designed to train individual crisis responders. These individuals are then expected to return to schools where they serve as one member of a larger crisis team. Since the success or failure of a school-based crisis response may be partially reliant on issues related to team dynamics and the quality of the team's working relationship, a question is raised about whether the most appropriate target group for crisis trainings is the individual team representative or the intact crisis team. A benefit of training intact teams is that all members will leave the class with a similar foundation of skills and knowledge about

crisis response procedures. Teams that have this shared foundation of skills are thought to be more able to effectively handle the chaos of a crisis situation (Brock et al., 2001; Hoff & Adamowski, 1998; Jimerson & Huff, 2002). However, the make-up of the staff at many schools changes from year to year, creating an additional question regarding how often teams would need to be retrained. School district personnel might also raise concerns about the time demands and cost involved in training intact teams. In comparison, training individual responders who would be expected to return to their teams in leadership roles and guide team responses may be more time and cost effective for training purposes. Brock, Sandoval, and Lewis (2001) endorsed a “trainer of trainers” model, where district-level crisis responders trained members of individual teams, with these team members then training the teams at their individual schools. However, a potential concern arising from this training model would be that the members of the school-based teams could have more difficulties working effectively together when actual crises occurred in their school communities, as the quality of their training experiences would likely differ.

The scoring rubric and crisis simulations designed for this study may be one way to further examine the issue of providing effective *and* efficient trainings. For example, a training could be held that included two main groups of participants. One group of participants would include intact school-based crisis response teams, with all of the members agreeing to participate in the crisis preparation and response curriculum. The other group of participants would include individual crisis responders who participated in the training and then were expected to go back and take leadership roles on their school-based crisis teams. Following the completion of the curriculum, both sets of school-

based teams, with all members present, would participate in a crisis simulation activity, with their simulation responses scored using the scoring rubric. One of the key implications of this research would be to look at what method of crisis training was most efficient. For example, if school teams where only one or a few members received in-depth training were just as effective in their crisis responses as school teams where the entire crisis team attended training, the use of an individualized training model would be supported.

A final consideration for future research involves looking at other training applications using the crisis simulation activities. For example, a crisis simulation, when combined with the scoring rubric, might be an effective method for assessing the training needs of individuals and school-based teams. In one such scenario, school-based teams could participate in a simulation activity prior to a scheduled training. Their responses could be scored using the scoring rubric, with their areas of strengths and weaknesses identified based on their rubric scores. These identified strengths and needs could then be considered as the training was developed, with the goal of better targeting the common skill gaps found across the teams prior to training. The use of these pre-training assessment approaches has been supported by a variety of authors when considering general adult learning approaches (Klatt, 1999; Rogers, 1996) and the more specific topic of school-based crisis training (Brock et al., 2001; Petersen & Straub, 1992).

The crisis simulation model could also be used as a measure of crisis response skills over time. In this study, the simulations were only used as a pre- and post-test measure, with data collected at the beginning and end of the seven session course. Future research efforts could offer simulations as booster sessions over a period of time, as was

suggested earlier in this chapter. These simulations could then serve as a strategy for helping individuals and/or teams maintain the skills that were previously learned, while also providing information on how well the procedures and strategies that were learned as part of the crisis curriculum were maintained over time.

APPENDIX A: Crisis Simulation Activity Used as Pre-Test

First Real-Time Crisis Simulation

Directions: For our next activity, we will be practicing our crisis intervention and planning skills using a real-time scenario. The activity will take you through the first 45 minutes of a crisis response. We will then have 25 minutes to discuss the activity.

We are having you practice your crisis response skills early in the course for a few reasons. First, we want you to have a context for the skills that we are going to be discussing and practicing over the coming weeks. Second, we would like to look at what the group's crisis response skills are before and after the course, so we can see if the curriculum is effective in improving the group's ability to apply the crisis preparation and response skills.

The class will be breaking into two groups. One group will be working in this room and the other group will be moving to another room so that you do not disturb each other. The two groups will then come back together to debrief the scenario.

We will not be answering any extra questions or stopping the scenario at any point for the next 45 minutes. If at any time this scenario feels overwhelming or too intense for anyone, please feel free to not participate in the discussion at your table. As we have previously discussed, we will be video and audiotaping the scenario in both rooms.

I want to emphasize that we are not evaluating your individual crisis response skills. In a school setting, one individual would never be expected to plan a school crisis response on his or her own. The purpose of the activity is to experience the reality of a crisis and to practice your skills while responding to crises as a group. Are there any questions before you get started?

Scenario sheet to participants:

Your principal called the members of the school-based crisis team early this morning and asked you to report to school early due to a crisis. The principal shared the following information with your team members on the phone. In summary:

Melvin Anderson, one of the classroom teachers at your school, was in a serious car accident yesterday evening around 10:30 PM. Melvin's mother was able to get in touch with the principal earlier this morning to let the school know about the accident. Mel is currently in serious but stable condition. According to what the police told Mel's mother, Mel's car struck another car in the middle of an intersection last night. The other vehicle was carrying a family of three. The father and child from the other car are in stable condition but the mother is in intensive care in critical condition due to major head trauma and other internal injuries suffered in the accident. Mel's mother said the police told her that it appeared that Mel's car entered an intersection and struck the passenger side of the other car at 40-50 miles per hour.

Other Information You Know:

Your team knows that Mel is a fourth grade teacher. He is a single, third year teacher who is very close with a number of the other younger staff members, including Kimberly Westin, Frank Jacobs, and Julie Clement. Mel frequently hangs out with these staff members after school and on the weekends. In addition to working with the students in his classroom, Mel makes some extra money by working in the after-school homework club program.

Your principal and assistant principal attempted to initiate the phone tree this morning, but were unable to get in touch with three of the team leaders. As a result, they decided to call the staff themselves to let everyone know that there will be a staff meeting this morning, 35 minutes before the students arrive. They are not giving a lot of details over the phone because they don't want staff driving to school upset. They are just sharing that Mel was in an accident and currently is in stable condition, and that more information will be provided at the staff meeting.

The crisis team has 45 minutes before the morning staff meeting. You will need to work as a group to decide on the procedures to be taken today. Also, please make sure you have developed any necessary statements needed to begin the day. At this time, the administrators are not available to plan, as they are calling the other staff members. Therefore, the principal has also asked you to prepare an agenda for her outlining the key topics she should talk about with the staff at the staff meeting.

45 MINUTES UNTIL STAFF MEETING (0 min.)

Allow team to work for 4 minutes

41 MINUTES UNTIL STAFF MEETING (4 min.)

Asst. Principal (to whole team):

I have some upsetting news. I just got off of the phone with Julie Clement. Julie said that she and Kim Westin were out with Mel last night. They met at a bar in Baltimore for drinks and a late dinner. She said that Mel had four or five drinks during the evening. She said that she offered to give Mel a ride, but he said he was OK to drive and didn't want to leave his car in the city. This may be even worse than we thought. Julie is extremely upset and is going to the hospital right now.

40 MINUTES UNTIL STAFF MEETING (5 min.)

Asst. Principal (to whole team):

Almost forgot to tell you this. We have only gotten in touch with about half of the staff, so we are still making calls. Hopefully we can get some other staff in soon to make calls so one of us can join you.

37 MINUTES UNTIL STAFF MEETING (8 min.)

Principal (to whole team):

Mel's mom just called. His condition has been upgraded to serious but stable. He has some serious facial injuries, including a fractured orbital and a broken jaw. He has some swelling around his eye that they are very worried about. They also think he may have done some damage to his shoulder and ribs, but it looks like he is definitely going to make it.

32 MINUTES UNTIL STAFF MEETING (13 min.)

Principal (to whole team):

I have some bad news. One of the secretaries came in a few minutes ago and said that she saw a story about the accident on the morning news. It is being reported on the news that the mother in the other car died about 30 minutes ago. The news report also said that Melvin has been charged in the accident and that the police are investigating whether he was under the influence of alcohol when the accident occurred. We turned on a TV here and saw a similar report on another channel. Also, Sally, the IA who works in Melvin's room, is very upset and is in my office right now. She saw the news before she came in too. I am going to go back and talk to her.

25 MINUTES UNTIL STAFF MEETING (20 min.)

Secretary (asks for one person):

I have started getting some phone calls from parents. I have gotten three already. Apparently they saw the story on the news as well this morning. They are calling in asking a lot of questions about Mel's condition. One parent asked if he was drunk. What should I say to them?

20 MINUTES BEFORE STAFF MEETING (25 min.)

Media Specialist (to whole team):

Sorry to interrupt. I heard that you were in here working and I have a question for you. We have the book fair starting today. The company is here with all of the stuff to set it up in the media center. I heard that we are using the media center for a staff meeting though. What do you want me to do? The classes are supposed to start coming to the book fair today to look at what books they might want to order.

17 MINUTES UNTIL STAFF MEETING (28 min.)

Asst. Principal (to whole team):

I want to update you on the phone calls to the staff. We have been able to get in touch with almost everyone, either at home or on their cell phones. We haven't been able to reach four teachers, including Mel's team leader. We also haven't reached the school's PPW. One of the other teachers we haven't reached is Kim Westin. She isn't answering at home or her cell. We aren't even sure if she knows about the accident. Fortunately, we were able to get Sally calmed down. She is going to go home for the day.

12 MINUTES UNTIL STAFF MEETING (33 min.)

Phone call for counselor/psychologist from angry parent (call aside/out of room):

Hi, this is Mrs. Adams, Kyle's mother. I am very upset about what has been going on with his 504 plan. He is supposed to be getting his accommodations at school and he isn't. His teachers aren't signing his agenda book and we aren't getting study guides for all of his tests. I would like a meeting today with you and his teachers!

7 MINUTES UNTIL STAFF MEETING (38 min.)

Secretary (to whole team):

Kim Westin just got here. She is in the office with the administrators and she is a wreck. She never heard about the accident until she got to school and then another staff member who saw her in the parking lot told her what was on the news this morning. She is very upset and is saying she wants to go to the hospital. The administrators are trying to get her calmed down. They want to know if you have any advice.

Allow team to work uninterrupted for the last 7 minutes

APPENDIX B: Crisis Simulation Activity Used as Post-Test

Second Real-Time Crisis Simulation

Directions: For our final activity, we will be practicing our crisis intervention and planning skills using another real-time scenario. The activity will take you through the first 45 minutes of a crisis response. We will then have 25 minutes to discuss the activity.

We are having you practice your crisis response skills at the end of the course for a few reasons. First, we want you to have the opportunity to practice and discuss the crisis preparation and response skills you have learned over the last six classes. Second, we would like to look at whether the group's crisis response skills have improved since the first simulation, so we can see if the curriculum has been effective in improving the group's ability to apply the skills that were taught.

The class will be breaking into two groups. One group will be working in this room and the other group will be moving to another room so that you do not disturb each other. The two groups will then come back together to debrief the scenario.

We will not be answering any extra questions or stopping the scenario at any point for the next 45 minutes. If at any time this scenario feels overwhelming or too intense for anyone, please feel free to not participate in the discussion at your table. As we have previously discussed, we will be video and audiotaping the scenario in both rooms.

I want to emphasize that we are not evaluating your individual crisis response skills. In a school setting, one individual would never be expected to plan a school crisis response on his or her own. The purpose of the activity is to experience the reality of a crisis and to practice your skills while responding to a crisis as a group. Are there any questions before you get started?

Information about the crisis event given to the participants:

Your principal has called the crisis team to the school this morning, 45 minutes before the staff is being asked to arrive, due to a crisis that is impacting your school community. Based on a rumor that was shared with the principal the night before by the PTA president, the principal called the police and obtained a police report summarizing the following information. Three ninth grade students from your school and an eighth grader from the middle school were playing with a handgun yesterday evening. The students were Rich Brown, Justin Monroe, Manny Armas, and DeMarcus Crandell (8th grader). The handgun belonged to Rich Brown's father, who did not know that the kids had taken the gun from his closet.

You also know that the students were in the woods near their neighborhood taking turns holding and pointing the gun. At some point, the handgun was discharged, with the bullet striking Justin Monroe. Justin was shot in the throat. Rich and DeMarcus immediately ran to get help while Manny, Justin's best friend, stayed with him in the woods. Sadly, Justin was dead by the time paramedics arrived at the scene of the shooting. Your principal and assistant principals are calling staff members to ask them to arrive at school 15 minutes earlier than usual for a staff meeting. They are also trying to get in touch with the parents of the three children from your school.

Other background information:

Rich and Justin both made the JV football team as freshman. Manny and Justin are also members of the band, although Justin had been talking about quitting because of the difficulties of balancing playing football and being in the band. Manny, Justin, and DeMarcus have been friends since elementary school. Rich moved to the neighborhood this summer and has experienced some difficulties adjusting to ninth grade. He has been suspended once for fighting and already has a reputation as a student who frequently gets into conflicts with others. Rich usually didn't socialize with the others during the school day, but they had hung out some in the neighborhood since the summer. Justin and Manny both have younger brothers who are also friends and attend the neighborhood elementary school. Rich and DeMarcus do not have any siblings.

You have 45 minutes before the morning staff meeting that your principal wants to hold to update the staff and prepare them for the day. The students will arrive in about 75 minutes. You will need to work as a group to decide on the procedures to be taken today. Also, please make sure you have developed any necessary statements needed to begin the day. Finally, the principal has asked the team to develop an agenda for him, covering the topics that he should discuss at the staff meeting this morning.

45 MINUTES UNTIL STAFF MEETING (0 min.) Allow team to work for 5 minutes.

40 MINUTES UNTIL STAFF MEETING (5 min.)

Principal (to entire team):

I wanted to let you know that we have started calling the staff. I am having the assistant principals make the calls rather than activating the phone tree, as some of the teachers might already be on the way in. We are calling those people that live farthest away first. We are telling the staff that we will be having a staff meeting before school to discuss a crisis that occurred last night involving one of our students. I am going to try to get in touch with the kids' parents. I'll be leading the staff meeting, but it would be helpful if you all could outline the topics I should be discussing.

37 MINUTES UNTIL STAFF MEETING (8 min.)

Assistant principal (to entire team):

The PTA president is in the front office. She wants to know if there is anything the PTA can do to help. She heard about the shooting and said a lot of the kids in the neighborhood know because they have been calling and instant messaging each other all night. Her son has heard a few different rumors already. One rumor was that Rich shot Justin because he was mad at him. Another rumor is that the kids had a couple of guns and were actually planning on bringing them to school. I told her that the police had not told us any of that. She just thought we should know all of this. She offered to join you to help plan the response since she feels she found out about all this last night, knows the most about the rumors, and initially notified the principal about the crisis.

31 MINUTES UNTIL STAFF MEETING (14 min.)

Assistant principal (to entire team):

When I spoke with Mrs. Dunne, the 10th grade special education IA, she had heard some rumors too. Her son is an eighth grader at the middle school. She said that one of her sons' friends called him last night. The friend lives in Justin's neighborhood and said he saw them bringing Justin out of the woods on a stretcher. Her son also said that the police put Rich, Manny, and DeMarcus in one of the patrol cars, even though Manny's mom was there! The kids are saying they might be getting arrested. The kids in the neighborhood are sure Rich will be, because he had told a few of the kids in the neighborhood about his dad's gun. According to Mrs. Dunne, the kids don't think Manny will get in trouble though, because when the other kids ran away he stayed with Justin and tried to save him.

27 MINUTES UNTIL STAFF MEETING (18 min.)

Secretary (to entire team):

Oh, I thought the principal might be in here. I just got here. The shooting is on the morning news. They reported Justin's name and said that the shooting occurred in Howard County. Anybody who watches the news this morning is going to know what has happened, and if any of the kids see it, they are going to come in upset. There are already a couple of messages on the answering machine about it, asking if he went to this school. One parent said that she wasn't sending her kid to school until the kid who shot him was in jail. Do you want me to call the parents back or tell one of the administrators?

21 MINUTES UNTIL STAFF MEETING (24 min.)

Principal (to entire team):

I just got off of the phone with Ms. Armas, Manny's mom. To make a long story short, she said that Manny is a mess. It sounds like he is in shock because he was the one who stayed with Justin in the woods while the other two boys went to get help. Ms. Armas would like to bring Manny into school to talk with one of the crisis team members. She is not sure if he will be able to stay because he is so upset. I have not been able to get in touch with Rich's parents. Manny's mom said that when she talked to Rich's mother last night as they were leaving the police station, she was planning on sending Rich to school today.

Principal leaving:

Oh, by the way, a few of the teachers have seen it on the news and are pretty upset. The ninth grade team really liked Justin. He was a good kid. I am also worried about the flack that Rich is going to get.

19 MINUTES BEFORE STAFF MEETING (26 min.)

Band Director (to entire team):

I just got here and heard what happened. The jazz ensemble group is supposed to hold a performance at the middle school today. Were any of the kids involved in the crisis in my group? I heard it was a bunch of freshmen, and I don't have any freshman in my ensemble group, but I wanted to make sure. I need to call the middle school in about twenty minutes to let them know that we are coming over a little early to get set up.

13 MINUTES UNTIL STAFF MEETING (32 min.)

School Resource Officer (asks to see psychologist in hall):

I just wanted to let you know that the principal asked me to call in to my supervisor at headquarters to find out about the shooting because of all of the rumors going around. My sergeant checked on it with the lead investigator. At this time, they are investigating the shooting as an accident. There was no indication that any of this was planned. It looks like the kids were fooling around and the gun discharged as Justin was handing it to another one of the boys.

9 MINUTES UNTIL STAFF MEETING (36 min.)

Phone call for teacher/counselor (in the hall):

This is Sam Collins, Jimmy's father. I am very concerned about his English grade on his report card. He did not get a progress report in that class but ended up with an E. There is no way he should end up with an E, especially if I had no clue that it was coming! I would like a meeting with his English teacher, counselor, and an administrator today, or I am calling someone at the central office to complain!

7 MINUTES UNTIL STAFF MEETING (38 min.)

Principal (to entire team):

We have gotten in touch with as many of the staff members as we could. About 1/3 of them had already heard what had happened. I wasn't able to get in touch with Cindy, the cluster nurse. I think she is at another school today anyway. Also, Justin's first period teacher was very upset. She said that she didn't think she could be in her class today. I am also a little worried about Craig Foreman, the PE teacher. He was one of the JV coaches, and his father was killed a few years ago in a hunting accident. You might want to have someone check in with him.

Allow team to work uninterrupted for the last 7 minutes

APPENDIX C: Course Curriculum Guide – Scope and Sequence

Training Curriculum: Introduction to the Curriculum Guide

The training curriculum used in this study will be described in this appendix. The description of the curriculum used for each session will include the session title, the amount of time for the entire session, the learning goals for the session, and the training agenda with the time allotted to each agenda item. In addition, each topic covered in the agenda will be reviewed, including the topic, learning objectives, content delivered, and teaching techniques used to accomplish the objectives. Before reviewing the training curriculum however, the following key points should be considered:

The Personal Nature of Crisis Training:

Due to the personal and potentially upsetting nature of crisis training, the co-trainers emphasized that the participants should carefully monitor their individual reactions to the training materials and activities. The training participants were repeatedly given the opportunity to opt out of any training activity that was uncomfortable to them and/or raised personal grief issues that they did not feel comfortable discussing. Likewise, the co-trainers consistently gave the course participants permission to stop participating in activities, not share during discussions or debriefings, and/or leave the training room at any time if any of the curriculum materials were unsettling or upsetting to them.

Questions:

The training participants were given permission to ask questions at any time during the training. Typically, the co-trainers would immediately answer the question or facilitate a group discussion about the question. In addition to meeting the needs of participants, this decision to respond to most questions immediately allowed the co-trainers to continuously monitor the clarity of the curriculum as well as assess the participants' perceptions, understanding of, and reactions to the course materials/content.

Debriefings and Debriefing Structure:

The training curriculum was designed so that there were scheduled debriefings built into all experiential activities. The importance of debriefing during crisis trainings was discussed in Chapter II: Literature Review. The debriefings were structured similarly for each of the experiential activities and followed a set sequence of discussion points. These key points typically included a discussion of the participants' reactions/feelings during and following the training activity, the key points and decisions made by the participants during the activity, any decisions that the participants were unsure of, how the skills that were practiced could be applied during actual crises, critical issues from the perspective of the co-trainers, and how the activity could be improved for future trainings.

Research and Informed Consent:

The training participants were reminded before and after each session that they could drop out of the research portion of the course at any time with no penalty. The researcher repeatedly emphasized that the participants could choose not to participate in any or all of the research components and still receive full credit for the class. All of the participants chose to participate in all aspects of the research. Research data was collected following each class session and from the simulation activities that occurred during the first and last class.

Examples of “Real-life” Experiences and Lessons Learned:

The co-trainers for this curriculum both had extensive previous experience preparing for and responding to actual crisis situations. Combined, the two trainers had consulted on and/or responded to over 200 school-based crises. Based on their wide range of experiences, the trainers were able to provide numerous “real-life” examples and lessons learned from actual crisis responses in their school district. The curriculum guide indicates when one or more of these examples were used to help illustrate a point while teaching an objective. The participants reported that these real-life examples were helpful to them in understanding and/or clarifying the various crisis strategies and procedures.

Building Added Time Into Each Session:

Each training session had five minutes of “extra time” built into the curriculum for breaks and/or if a training topic or discussion lasted longer than expected. The course participants were also given permission to take breaks as needed throughout the course. This extra time was not listed on the training agendas for each session.

Confidentiality Limitations of this Curriculum Guide:

Due to the research requirements for this dissertation, any materials that could potentially breach confidentiality by identifying training participants, the training setting, and/or specific crisis events that have occurred within the school district where the training occurred have been omitted from this training guide. Therefore, because the various PowerPoint presentations included a great deal of content specific to the district (i.e., names of crisis team leaders, references to schools and specific crises), copies of these presentations were not included in the curriculum guide. This curriculum guide will identify and outline all of the key topics covered in the various PowerPoint presentations. Other resources developed for this curriculum can be found in the supplemental materials at the end of this appendix or in the other appendices of this dissertation. The researcher will indicate, when appropriate, where these materials can be found.

Curriculum Guide Session Outline

Session 1: Introduction to Crisis Preparation and Response in the Schools

Learning Goals for Session 1

Training Agenda for Session 1

Objectives, Content Provided, and Teaching Strategies for Session 1 Agenda Items

Introduction of trainers

Introduction of participants

Overview of course goals and objectives

Description of research, data collection techniques, and informed consent

Simulation activity and debriefing

Session 2: Understanding the Nature of School Crises and Grief

Learning Goals for Session 2

Training Agenda for Session 2

Objectives, Content Provided, and Teaching Strategies for Session 2 Agenda Items

Continuation of simulation debriefing activity from last session

I-movie presentation – *School crisis intervention: The nature of school crises*

I-movie debriefing

Presentation on the impact of grief and bereavement on the school community

Introduction to the developmental stages of grief – elementary ages

Session 3: Crisis Teams – Preparedness and Response (part 1)

Learning Goals for Session 3

Training Agenda for Session 3

Objectives, Content Provided, and Teaching Strategies for Session 3 Agenda Items

Importance of recognizing your personal grief buttons

Continuation of the developmental stages of grief – middle and high school ages

Strategies for helping school teams prepare to respond before a crisis event occurs

Strategies for helping school teams plan a crisis response after a crisis event

occurs

Session 4: Crisis Teams – Preparedness and Response (part 2)

Learning Goals for Session 4

Training Agenda for Session 4

Objectives, Content Provided, and Teaching Strategies for Session 4 Agenda Items

- Developing appropriate statements for school community members
- Planning and conducting before- and after-school faculty meetings
- Providing crisis supports to adults in the school community
- Assessing the degree of impact – simulation activity and debriefing

Session 5: Debriefing and Follow-up After the Crisis / Special Issues in Crisis Response

Learning Goals for Session 5

Training Agenda for Session 5

Objectives, Content Provided, and Teaching Strategies for Session 5 Agenda Items

- Research-based strategies for supporting students in the classroom
- Debriefing with teams following the crisis response
- Memorial activities – appropriate and inappropriate methods for memorializing deaths in school settings
- Planning for important events in the months following the crisis
- Special issues in crisis response
- Review of current research on crisis preparation and response in school settings
- Scavenger hunt activity for becoming familiar with district crisis response manual
- Lessons learned handout

Session 6: Crisis Counseling and Intervention

Learning Goals for Session 6

Training Agenda for Session 6

Objectives, Content Provided, and Teaching Strategies for Session 6 Agenda Items

- Review of literature resources
- The goals of crisis intervention and the communication skills needed by crisis responders
- Individual and group crisis counseling objectives and strategies

Overview of two group crisis intervention protocols
Counseling role-play and debriefing
Modeling of individual counseling skills

Session 7: Final Simulation / Conclusion / Focus Groups

Learning Goals for Session 7

Training Agenda for Session 7

Objectives, Content Provided, and Teaching Strategies for Session 7 Agenda Items

Personal learning goal responses
Simulation activity and debriefing
Focus groups

Supplemental Materials

Assessing Degree of Impact Simulation

Scenarios for the Activity on Planning for the Weeks and Months Following the Crisis

Group Discussion Recording Sheet for the Planning for the Weeks and Months Following the Crisis Activity

Scavenger Hunt Questions

Lessons Learned Handout

Role-play Scenarios for Counseling Skills Activity

Session 1: Introduction to Crisis Preparation and Response in the Schools

Time: 2 Hours, 15 minutes

Learning Goals for Session 1

There were a variety of learning goals for the first session. The learning goals and activities during the first half of this session were designed to increase the comfort level of the course participants with the co-trainers and with each other and to ensure that the course participants understood the key course objectives, the requirements for obtaining continuing professional development credit, and the informed consent form related to the researcher's data collection strategies. The learning goals for the second half of the session involved giving the course participants an opportunity to practice their entry level group crisis response skills using a crisis simulation and to learn from the activity by debriefing as a group.

Training Agenda for Session 1

- Introduction of trainers (5 minutes)
- Give the participants an opportunity to introduce themselves and get to know other members of the class through a structured group activity (20 minutes)
- Provide a brief overview of the course goals and objectives (20 minutes)
- Discuss district requirements to receive Continuing Professional Development credit (5 minutes)
- Discuss the research goals and methods with participants and get their informed consent to participate in the research (15 minutes)
- Pre-test crisis simulation activity and debriefing (65 minutes)

Objectives, Content Provided, and Teaching Strategies for Session 1 Agenda Items

Introduction of Trainers

Objective: To give participants a knowledge of and comfort level with the co-trainers.

Content Provided: The co-trainers provided information on their assigned roles and responsibilities within the school district, including their roles on the district-level crisis team. The co-trainers also discussed their various experiences preparing for and responding to school crises and provided a brief overview of the previous trainings they have led on school crisis response.

Teaching Strategies Used: Group discussion led by co-trainers

Introduction of Participants

Objective: To give the participants the opportunity to introduce themselves and to get to know their classmates.

Content Provided: The participants introduced themselves to the entire class by sharing their name, professional role, school assignments, and years of experience. The participants then worked in groups of three to complete an introductory activity. For this activity, the participants told their small group two true facts and one lie about themselves. The other members of the group needed to guess the lie. This activity was designed to facilitate group discussion in a light-hearted manner. The small groups then shared-out with the entire class, telling each other what they had learned about their classmates. The co-trainers also participated in this activity.

Teaching Strategies Used: Small group discussions and opportunity to share-out with entire group

Overview of Course Goals and Objectives

Objective: To provide the course participants with a brief overview of the key course goals and objectives.

Content Provided: The following content was discussed during this overview:

- Session 1 goals and objectives
- Course overview, with general description of each course session
- Written summary of co-trainers' crisis response experiences
- Definition of a school crisis
- Brief summary of the range of crises that have occurred in the district (i.e., murders, suicides, accidental deaths - occurring at elementary, middle, and high school levels - impacting students and adults)
- Description of multi-tier crisis response model used by district, including the structure of the teams and the roles and responsibilities of the district-level and school-based teams

Teaching Strategies Used: PowerPoint presentation with group discussion/questions as needed

Description of Research, Data Collection Techniques, and Informed Consent

Objective: To ensure that the course participants fully understood the purpose of the research, the various data collection tools to be used for the research, and either gave

their informed consent to participate in the research or chose to not participate, understanding that there would be no penalty for not participating.

Content Provided: The researcher (lead trainer) described each of the data collection techniques that would be used as well as the purpose and intended outcome from each of these techniques. The participants then were asked to read the informed consent form, ask any questions as needed, and turn in the informed consent (signed or unsigned) at the end of session 1.

Teaching Strategies Used: Group discussion led by researcher (lead trainer) with opportunity for participants to ask clarifying questions

Simulation Activity and Debriefing

Objective: To give the participants the opportunity to practice their group crisis response skills and to participate in a structured debriefing following the activity to facilitate learning. The simulation activity was also done at the beginning of the course so that the participants, especially those with little or no crisis response experience, would have a context to better understand the skills and strategies to be covered later in the curriculum. The participants' performance during this simulation activity was also used to collect information on their group crisis response skills at the beginning of the training as part of the researcher's data collection.

Content Provided: The participants worked in two groups to respond to the crisis simulation found in Appendix A. The co-trainers then led a structured debriefing to discuss participant reactions, important learning concepts, and lessons learned. The debriefing structure used for this activity was described at the beginning of this curriculum guide. Some of the key learning concepts discussed included verifying information, notifying appropriate personnel, identifying needed resources, assessing students and staff impacted by the crisis, planning for a morning staff meeting, developing the necessary statements, and planning the crisis response strategies to be implemented during the school day.

Teaching Strategies Used: Experiential learning through group crisis response to crisis simulation and structured debriefing of simulation by co-trainers

Session 2: Understanding the Nature of School Crises and Grief

Time: 2 hours, 15 minutes

Learning Goals for Session 2

There were three critical learning goals planned for this session. These three learning goals included developing a clear understanding of the nature of school crises, the impact of crises on schools, including issues related to grief and bereavement, and the developmental stages of grief. In addition, before these planned learning goals were addressed, the class participants continued to debrief the simulation activity completed during the last session.

Training Agenda for Session 2

- Introduction of session two objectives (5 minutes)
- Continuation of simulation debriefing from last session based on additional questions from participants (20 minutes)
- Video presentation: i-movie developed by co-trainers (25 minutes)
- Discuss the i-movie through a structured debriefing (15 minutes)
- Discuss grief and bereavement, including the impact of crises on schools, the goals and objectives of school-based crisis intervention, and the importance of anticipating the needs of the school community based on the crisis event (50 minutes)
- Introduction to the developmental stages of grief – elementary ages (15 minutes)

Objectives, Content Provided, and Teaching Strategies for Session 2 Agenda Items

Continuation of Simulation Debriefing Activity from Last Session

Objective: To continue to address critical learning issues that were raised through the simulation experience

Content Provided: The course participants stated that they had additional thoughts and questions about the simulation activity conducted during session one. Therefore, the co-trainers decided to modify the original training agenda for this session to address the questions raised by the course participants. The main focus of these questions related to the verification of information. To illustrate the importance of verifying information about the crisis event, the co-trainers discussed actual school crisis situations where the information about the crisis event was not fully and/or accurately verified and the impact of this on the crisis response.

Teaching Strategies Used: Group discussion led by co-trainers

I-movie Presentation - *School Crisis Intervention: The Nature of School Crises*

Objective: To give the course participants an understanding and overview of how crises impact school communities by using examples from crisis events that occurred in the school district. The i-movie was used at this point in the course as a “hook activity”. In other words, one of the goals of using the i-movie early in the course was to “hook” the participants by using a training tool that was emotional, thought provoking, and emphasized the critical importance of crisis response. By showing this movie early in the course, the co-trainers hoped to ensure that the participants would fully understand the importance of the content that followed.

Content Provided: The co-trainers developed the i-movie used in this activity. The i-movie was not included with these curriculum materials due to confidentiality limitations. The purpose of the i-movie was to provide an overview of the impact of crises on individuals and school communities so that current and future crisis responders would have a better understanding of potential issues faced during a crisis response. Key topics covered in the i-movie included the experience of loss, the impact of loss, coping and helping, change due to loss, and memories. The actual content in the i-movie was delivered using videotaped interviews with students and staff members, quotes and writings from students following a crisis, cards and poems written by students, and a song that was written and produced by two students following the death of their teacher.

Teaching Strategies Used: Multi-media i-movie presentation using real-life examples of the impact of crises on members of the school community. The co-trainers had received signed consent from the participants before using their interviews, songs, writings, and cards in the i-movie. If the participant was a minor, a parent also signed the consent forms. These consent forms gave the co-trainers permission to use the i-movie for crisis training activities in their school district.

I-movie Debriefing

Objective: To discuss what the i-movie meant to the course participants and how viewing the i-movie impacted their view of crisis response

Content Provided: The co-trainers led a structured debriefing to discuss the participants’ reactions, important learning concepts, and any questions from the participants. The debriefing structure used for this activity was described at the beginning of this curriculum guide.

Teaching Strategies Used: Structured debriefing of i-movie by co-trainers to facilitate group discussion of thoughts, reactions, and questions

Presentation on the Impact of Grief and Bereavement on the School Community

Objective: To provide the course participants with an understanding of how issues related to grief and bereavement impact the school community and the subsequent goals of crisis intervention

Content Provided: The co-trainers outlined a variety of fundamental issues related to how crises impact schools. In addition to delivering content through the PowerPoint presentation, the co-trainers described real-life crisis responses to illustrate critical points. These descriptions compared situations where the degree of impact was assessed effectively versus crisis situations that were assessed poorly. In addition, the co-trainers discussed a few specific examples from actual crisis situations. These examples included assessing the degree of impact following a homicide witnessed by other students, after a student suicide that occurred immediately before a major school event, and for crisis events impacting multiple schools. The following content was discussed during this activity:

- The impact of grief and bereavement on school communities
 - Crises create disequilibrium and confusion
 - Crises interfere with the primary goal of schools - education
- Goals of crisis intervention
 - Restoring the school to pre-crisis equilibrium
 - Identifying those at-risk and helping them develop strategies for coping with grief and bereavement
- Assessing the degree of impact on the school community based on the nature of the crisis event
 - Why schools should assess the degree of impact
 - Questions schools should address when assessing the degree of impact
- Responding to various crisis situations – how unique crises impact schools
 - Homicides, suicides, accidental deaths, and other sudden losses
 - Anticipated deaths, often due to long-term illnesses
 - Wide-scale crises impacting multiple schools

Teaching Strategies Used: PowerPoint presentation with group discussion/questions as needed and real-life examples from actual school crises

Introduction to the Developmental Stages of Grief – Elementary Ages

Objectives: To help the participants understand the typical grief reactions of elementary age students based on developmental levels

Content Provided: The co-trainers discussed the developmental grief responses of preschoolers (ages 3 to 5), early elementary age students (ages 5 to 9), and older elementary age students (ages 8 to 12). As can be seen from these age ranges, there are

not fixed grief responses based on age, but rather fluid ranges that may be influenced by maturity level, previously developed coping strategies, and environmental supports and stressors. The co-trainers described children's typical grief-related feelings and thoughts, possible behavior changes, and appropriate general grief interventions at each age range. Real-life examples were provided to further illustrate the concepts of magical thinking, normal preoccupations with death, and feelings of guilt.

Teaching Strategies Used: PowerPoint presentation with group discussion/questions as needed and real-life examples from actual school crises

Session 3: Crisis Teams – Preparedness and Response (Part 1)

Time: 2 hours, 15 minutes

Learning Goals for Session 3

There were three broad learning goals for this session that incorporated numerous smaller but critical goals and objectives. The first learning goal was to finish the presentation on the developmental stages of grief by introducing common grief responses for middle and high school students. The second broad learning goal focused on strategies for supporting school teams so that they are able to effectively prepare for crises before a crisis event occurs. The third learning goal for this session was to help the course participants gain an understanding of the strategies used when planning a crisis response after a crisis event occurs.

Training Agenda for Session 3

- Introduction of session three objectives (5 minutes)
- Importance of recognizing and considering your personal “grief buttons” as a crisis responder (5 minutes)
- Continuation of developmental stages of grief – middle school and high school ages (15 minutes)
- Discussion of strategies on helping school teams prepare to respond before a crisis occurs (30 minutes)
- Discussion of strategies to be used when helping a school team plan a crisis response after a crisis has occurred (75 minutes)

Objectives, Content Provided, and Teaching Strategies for Session 3 Agenda Items

Importance of Recognizing Your Personal Grief Buttons

Objective: To illustrate that crisis responders must recognize and consider their personal grief issues before responding to a crisis

Content Provided: One of the co-trainers described a crisis event where he helped plan and implement a crisis response for a soccer team after the coach of the team, who was a law enforcement officer, was murdered. The co-trainer noted that this person had been a mentor and friend for a number of years and discussed how the co-trainer’s decision to provide support as a responder was influenced by and impacted his own grief issues surrounding the crisis event.

Teaching Strategies Used: Real-life example provided by co-trainer with brief group discussion of key issue

Continuation of the Developmental Stages of Grief – Middle and High School Ages

Objectives: To help the participants understand the typical grief reactions of middle and high school age students based on developmental levels

Content Provided: The co-trainers discussed the developmental grief responses of students in middle school and high school (ages 12 to adolescence). The similarities and differences between these two groups were highlighted. The co-trainers described children's typical grief-related feelings and thoughts, possible behavior changes, and appropriate general grief interventions at each school level. Real-life examples were provided to further illustrate important concepts related to students in this age range. Some examples described how students this age prefer to get support from peers rather than from adults, can be more reflective on how the crisis event changes their lives, and benefit from the school staff maintaining structure during the school day.

Teaching Strategies Used: PowerPoint presentation with group discussion/questions as needed and real-life examples from actual school crises

Strategies for Helping School Teams Prepare to Respond Before a Crisis Event Occurs

Objectives: To help the participants learn about procedures and strategies for effectively forming a school-based crisis team and how to prepare this team to respond to a variety of school crises

Content Provided: The co-trainers discussed a variety of steps that should be taken to help develop effective school-based crisis teams that are prepared to respond to a wide range of school crises. The co-trainers also shared actual crisis response "tool boxes" from different schools. The topics discussed included:

- Identifying appropriate team members
- The importance of ongoing team training
- Developing and implementing crisis phone trees
- Clarifying the various roles and responsibilities for members of the crisis team

Teaching Strategies Used: PowerPoint presentation with group discussion/questions as needed and real-life examples from actual school crises; opportunity to look at and discuss crisis tool boxes from various schools

Strategies for Helping School Teams Plan a Crisis Response After a Crisis Event Occurs

Objectives: To provide the participants with the key procedures and strategies for effectively planning a crisis response once a crisis has occurred in a school community

Content Provided: The co-trainers discussed the following procedures and strategies, illustrating key points with real-life examples from actual school crises:

- How to begin crisis response procedures at a school- and district-level
- The importance of meeting with the school-based team as soon as possible to plan the school response
- Strategies and requirements for verifying information about the crisis event
- Identifying which district personnel should be notified and the procedures for notifying various personnel
- Assessing the degree of impact based on:
 - Who was involved in the crisis
 - Whether a death was anticipated or sudden
 - The nature of the crisis event (i.e., suicide, car accident)
 - Where and when the crisis occurred
 - The role and involvement of the victim/s in the school, including membership in any special groups or extra-curricular activities
 - Identifying individuals and groups who will be heavily impacted
 - Identifying the family and media liaisons
 - Identifying the human and physical resources needed to effectively respond to the crisis event
- How to access the supports and resources that will be needed for an effective response
- Developing a response plan based on the previously discussed factors
- Developing appropriate statements
- Procedures for contacting staff members
 - Phone trees and staff meetings
 - Strategies for crises that occur during the school day
- The roles of the family and media liaisons

Teaching Strategies Used: PowerPoint presentation with group discussion/questions as needed and real-life examples from actual school crises

Session 4: Crisis Teams – Preparedness and Response (Part 2)

Time: 2 hours, 15 minutes

Learning Goals for Session 4

The learning goals for session four continued the focus on crisis response strategies and procedures that were discussed in the previous session. The content in this session provided examples and methods for sharing information on the crisis event with others and supporting the school staff throughout the crisis response. The course participants were then given an opportunity to practice and discuss the various strategies covered in sessions three and four by working in groups to assess the degree of impact and identify needed resources for a simulated crisis event.

Training Agenda for Session 4

- Introduction of session four objectives (5 minutes)
- Discussion of how to develop appropriate statements, share information with members of the school community, and update crisis information as needed, including opportunities to review actual statements used at crises (35 minutes)
- Introduce and discuss strategies for planning and conducting before- and after-school faculty meetings (35 minutes)
- Discuss strategies and limitations when supporting adults who work for the school system as they process their grief reactions (20 minutes)
- Assessing degree of impact simulation activity and debriefing (40 minutes)

Objectives, Content Provided, and Teaching Strategies for Session 4 Agenda Items

Developing Appropriate Statements for the School Community Members

Objective: To provide course participants with sample statements for responding to crises and to review the key steps for effectively developing and sharing statements with the school community

Content Provided: At the end of the previous session, the co-trainers provided the course participants with a variety of statements that were developed in response to a number of crises in the district. This packet included statements to students with directions for reading the statements, written guides for handling possible rumors, statements for sharing information with staff, letters sent home to parents, and phone statements and response logs. During today's activity, the co-trainers discussed these various types of statements and highlighted important factors to consider when developing statements for students, staff, and the school community. The statement shells in the crisis response manual were also reviewed.

Teaching Strategies Used: PowerPoint presentation with group discussion/questions as needed and real-life examples from actual school crises; Provided samples of various statements from actual crises, including statements to students and staff, letters home, secretary phone responses, and phone logs

Planning and Conducting Before- and After-school Faculty Meetings

Objective: To help the course participants develop the necessary strategies and skills for effectively planning before- and after-school faculty meetings

Content Provided: The co-trainers covered the following topics during this activity:

- Updating verified information with staff
- Providing information on how and when information should be shared with students, responses to rumors, and plans for helping students access interventions
- Identifying staff members who may need support throughout the day
- Discussing changes to schedules, activities, and instructional expectations
- Procedures for accessing resources for staff during the school day
- Introducing district crisis team members
- Outlining the topics that should be covered during an after-school staff meeting

Teaching Strategies Used: PowerPoint presentation with group discussion/questions as needed and real-life examples from actual school crises

Providing Crisis Supports to Adults in the School Community

Objective: To discuss strategies and limitations when supporting adults in the school community following a crisis event

Content Provided: The co-trainers provided information and strategies on two key topics during this activity. The primary discussion focused on strategies and procedures for helping support the staff members as they supported the students, parents, and each other during the crisis response. The key strategies covered for this topic included:

- Having statements prepared for teachers and secretaries ahead of time
- The importance of sharing information with staff first whenever possible
- The importance of updating verified information with staff as soon as possible
- Supporting staff members as they read statements to students and work with the students in their classes
- The importance of holding before- and after-school staff meetings
- Sharing information with staff on how they can access supports for themselves
- Providing substitutes to help cover classes as needed

- Providing food in the staff lounge
- Having crisis team members available in the staff lounge, as needed

The co-trainers also briefly discussed strategies for providing direct crisis intervention to colleagues and other school staff members. The limitations of these strategies were discussed in detail. An emphasis was placed on helping staff members find supports through the Employees' Assistance Program and/or outside therapists.

Teaching Strategies Used: PowerPoint presentation with group discussion/questions as needed and real-life examples from actual school crises

Assessing the Degree of Impact – Simulation Activity and Debriefing

Objective: To provide the course participants with an opportunity to practice and reflect on the skills needed to effectively assess the degree of impact and identify necessary resources for a complex crisis situation

Content Provided: The course participants worked in two groups to respond to the simulation scenario for this activity. The scenario can be found in the supplemental materials at the end of this curriculum guide. The two groups worked to assess the degree of impact and identify necessary resources in response to this complex crisis scenario. After twenty minutes, the two groups were brought together to discuss and debrief their experiences and decisions during this activity. The debriefing structure used for this activity was described at the beginning of this curriculum guide.

Teaching Strategies Used: Experiential learning through group crisis response to crisis simulation and structured debriefing of simulation by co-trainers

Session 5: Debriefing and Follow-up After the Crisis/ Special Issues in Crisis Response

Time: 2 hours, 15 minutes

Learning Goals for Session 5

There were numerous learning goals for this session. The first activity introduced the participants to research-based strategies for supporting students in their regular class settings. Most of the remaining learning goals focused on critical topics to address after the initial crisis response has taken place, such as memorials, debriefing with teams, and planning for future events (i.e., graduation, anniversary dates). The co-trainers briefly reviewed the current research findings related to crisis preparation and response. A scavenger hunt activity was designed to help the course participants locate and feel more comfortable using the district's crisis response manual. Finally, the goal of the lessons learned handout was to provide the participants with examples of key lessons that had already been learned by crisis responders in the district.

Training Agenda for Session 5

- Introduction of session five objectives (5 minutes)
- Discuss research-based strategies for supporting students as they process their grief reactions in class settings (10 minutes)
- Discuss the importance of debriefing following a crisis (10 minutes)
- Discuss appropriate and inappropriate ways to memorialize a death following a crisis (25 minutes)
- Discuss, practice, and debrief the activity on planning for the weeks and months following a crisis (30 minutes)
- Discuss special issues in school crisis response (40 minutes)
- Brief overview of research findings related to school-based crisis response (5 minutes)
- Scavenger hunt activity to become familiar with crisis response manual (10 minutes)
- *Pass out lessons learned hand-out – distributed as a take-home reading activity*

Objectives, Content Provided, and Teaching Strategies for Session 5 Agenda Items

Research-based Strategies for Supporting Students in the Classroom

Objective: To review research-based strategies for supporting students in the classroom following a crisis in a school community

Content Provided: The co-trainers reviewed the existing research on strategies for supporting students in a classroom setting following a crisis event. The key strategies

discussed included structured class discussions of the crisis event and the subsequent student reactions, writing and journaling activities, and art activities (i.e., the use of condolence cards or arts and crafts activities to facilitate coping and discussion). The co-trainers provided examples and models of various classroom-based and school-based activities that had been done in the school district.

Teaching Strategies Used: Brief PowerPoint presentation with group discussion/questions as needed and modeling of actual activities and materials that can be used during a crisis response

Debriefing with Teams Following the Crisis Response

Objective: To provide the course participants with an understanding of the importance of debriefing with various school teams following a crisis response

Content Provided: The co-trainers discussed debriefings with school staffs, school-based crisis teams, and district-level crisis teams. The goals and objectives of debriefing were reviewed and forms and procedures from the district's crisis response manual were shared. The key elements discussed during this activity included:

- Holding an end-of-the day staff meeting
- Updating verified information about the crisis event and the crisis response
- Thanking the staff and team members for their efforts
- Reviewing what went well and what went poorly during the response
- Discussing lessons learned
- Identifying plans, procedures, and resources need for the next day/s
- Identifying additional at-risk students
- Identifying students and staff in need of continued monitoring

Teaching Strategies Used: Brief PowerPoint presentation with group discussion/questions as needed

Memorial Activities – Appropriate and Inappropriate Methods for Memorializing Deaths in School Settings

Objective: To provide the course participants with examples of appropriate and inappropriate methods for memorializing student and staff deaths in school settings

Content Provided: The co-trainers presented on a variety of issues related to memorializing deaths in school settings. The content presented led to in-depth discussions of different situations surrounding memorials that have occurred in the district, including current school practices that have led to difficult situations. The co-trainers covered the following topics related to memorials:

- Forming a memorial committee with representation from a variety of stakeholders within the school
- Offering a continuum of memorial opportunities that shifts over time from temporary to permanent memorials
- The precedence and permanence of memorials, and the impact that these key issues have on future crises
- Strategies for handling suicides, which should not be memorialized
- The importance of allowing a committee to determine an appropriate memorial rather than letting students or family members dictate the memorial
- Memorial strategies to avoid (i.e., don't memorialize desks, lockers)

Teaching Strategies Used: Brief PowerPoint presentation followed by in-depth group discussion/questions and real-life examples from actual school crises

Planning for Important Events in the Months Following the Crisis

Objective: To give the course participants an opportunity to predict and plan for possible longer-term issues related to a crisis event and to review and discuss various issues that may arise after a crisis has occurred

Content Provided: This was a two-part activity. First, the course participants were given an opportunity to work in small groups (three members each) to brainstorm various issues that could arise over time following a school crisis. Each group was given one of the four scenarios for this activity and had to identify issues that could arise in the days, weeks, months, and years following the crisis event described in the scenario. The various scenarios and the discussion recording form used for this activity can be found in the supplemental materials at the end of this curriculum guide. After ten minutes of brainstorming, the teams shared their responses. The co-trainers then led a structured discussion, supplemented by a PowerPoint presentation. The co-trainers emphasized some of the key issues that should be considered in the weeks and months following a school crisis, including:

- Sharing condolences with the family
- Monitoring and supporting heavily impacted students and staff over time
- The day of the funeral
- Graduations
- Yearbooks and memory books
- Desks, lockers, parking spaces, and personal possessions
- Stopping mailings from the school
- The ongoing role of the family liaison
- Anniversary dates
- Issues related to possible legal outcomes stemming from ongoing court cases
- Issues related to autopsy finding (i.e., drug overdose, finding of death by suicide)

Teaching Strategies Used: Experiential learning through a small group brainstorming activity, followed by a structured PowerPoint presentation and discussion led by co-trainers; Examples from real-life crises were provided when appropriate

Special Issues in Crisis Response

Objective: To provide the course participants with strategies for handling special and/or unique issues when responding to a crisis

Content Provided: The co-trainers identified a number of special and/or unique issues in crisis response and provided strategies for addressing these situations. The course participants were also given the opportunity to ask questions about topics that had not been covered or that they felt that they needed further information or clarification on. The following topics were covered during this activity:

- Strategies for handling students exhibiting extreme emotional reactions individually or in groups
- Procedures for verifying information when conflicting or incomplete reports are received
- Strategies for working with families who don't want accurate information released, such as in the case of a completed suicide
- Identifying and providing supports for students and staff having difficulties coping over time
- Strategies for working effectively with administrators and/or school staff members who are not following the appropriate crisis response procedures

Teaching Strategies Used: In-depth group discussion of specific issues that were highlighted by the co-trainers or raised via questions from the participants, with real-life examples from actual school crises

Review of Current Research on Crisis Preparation and Response in School Settings

Objective: To provide the course participants with an overview of the existing research on school-based crisis preparation and response and to discuss some of the difficulties/limitations of conducting rigorous research on school-based crises

Content Provided: The co-trainers discussed the existing research on school-based crisis preparation and response. The co-trainers noted that most of the current research was based on anecdotal accounts of crisis preparation and intervention strategies and outcomes. The limitations of researching school-based crises were considered. Some of these limitations included the unpredictable and infrequent nature of school crises, the need for a timely response, the need to do no harm while maintaining confidentiality, and the difficulties of collecting quantitatively rigorous data in school settings.

Teaching Strategies Used: Brief discussion of existing research led by co-trainers

Scavenger Hunt Activity for Becoming Familiar with District Crisis Response Manual

Objective: To help the course participants become more familiar with the structure and content of the district's crisis response manual

Content Provided: There was not any additional content provided during this activity. The course participants worked in teams using their crisis response manuals to answer the various questions on the scavenger hunt. A copy of the scavenger hunt questions is included in the supplemental materials section of this curriculum guide.

Teaching Strategies Used: Contest – the participants worked in pairs to find resources and information in the district's crisis manual, with prizes awarded to the winning team

Lessons Learned Handout

Objective: To provide the course participants with a summary of key lessons learned from actual crisis responses in the district

Content Provided: The handout summarized a wide range of lessons learned from previous responses in the school district. The co-trainers discussed many of these lessons learned during the course to help illustrate key points. A copy of this handout can be found in the supplemental materials section at the end of this curriculum guide.

Teaching Strategies Used: Written handout provided to participants by co-trainers

Session 6: Crisis Counseling and Intervention

Time: 2 hours, 15 minutes

Learning Goals for Session 6

The critical learning goals for this session targeted the key skills needed to provide individual and group crisis counseling interventions in a school setting. The session topics reviewed counseling materials, approaches, and strategies that have been used to support students who are coping with a crisis event. The participants were given the opportunity to observe, practice, and receive feedback on some of the basic counseling skills through the use of brief role-plays. The co-trainers emphasized that this session was designed to be an introduction to the basic counseling skills needed for crisis response and that the participants would need additional training and/or experience in addition to this session to build effective crisis counseling skills.

Training Agenda for Session 6

- Introduction of session six objectives (5 minutes)
- Review of literature resources for children and adults, with gallery walk during break (10 minutes)
- Discussion of goals of crisis intervention and the critical communication skills needed to respond to crises effectively (20 minutes)
- Discussion of the objectives and strategies for individual and group crisis counseling (30 minutes)
- Overview of two group crisis intervention protocols which have been used in school settings - NOVA & CISM (20 minutes)
- Individual counseling role-play activity and debriefing (50 minutes)
- *Optional session – modeling of individual counseling by co-trainers (30 minutes)*

Objectives, Content Provided, and Teaching Strategies for Session 6 Agenda Items

Review of Literature Resources

Objective: To give the course participants the opportunity to learn about and review some of the literary resources available to use with adults and children who have experienced a crisis, as well as resources developed to support crisis responders

Content Provided: The co-trainers shared a wide variety of literature resources. These books included informational and skill-building materials for crisis responders, resources for parents, and books for children of various developmental levels covering a wide range of topics and grief issues.

Teaching Strategies Used: Description and discussion of various literature resources that can be used with children and adults in response to various crisis situations; opportunity for participants to do a gallery walk during the break to familiarize themselves with the materials

The Goals of Crisis Intervention and the Communication Skills Needed By Crisis Responders

Objective: To give the course participants an understanding of the basic goals of crisis intervention in schools and to review and discuss the critical communication skills that are needed to be an effective crisis responder

Content Provided: The co-trainers outlined and discussed the following goals of crisis intervention:

- Establishing meaning and personal significance after the crisis event
- Confronting the reality of the situation
- Building and sustaining relationships
- Managing the emotional responses to a crisis
- Developing coping strategies and achieving a sense of competency/mastery

The co-trainers then reviewed the following crisis intervention principles:

- The importance of a timely and appropriate response
- Modeling competence and composure
- Practicing active listening
- Intervening with an honest and realistic approach
- Facilitating a “take action” approach with the grieving students/adults
- Encouraging self-reliance and the development and application of positive coping strategies
- Strategies for monitoring progress, outcomes, and future intervention needs, especially for highly impacted individuals

When appropriate, real-life examples from actual school crises were discussed. The participants were asked to work in pairs to brainstorm and develop a list of critical communication skills needed by crisis responders. The importance and relevance of these various communication skills were then discussed.

Teaching Strategies Used: PowerPoint presentation with opportunities for discussion/questions as needed

Individual and Group Crisis Counseling Objectives and Strategies

Objective: To offer an overview of the critical objectives and strategies of crisis counseling. The similarities and differences between individual and group crisis counseling were discussed from the perspective of school-based responses.

Content Provided: The co-trainers reviewed critical considerations during both individual and group crisis counseling, various frameworks for providing these supports in a school setting, and strategies for working with students of various developmental levels and differing levels of impact. The co-trainers also reviewed strategies for working with highly impacted individuals demonstrating extreme grief reactions and/or high-risk behaviors. The key points of this discussion were illustrated using real-life examples from various crisis responses within the district.

Teaching Strategies Used: PowerPoint presentation with opportunities for discussion/questions and real-life examples from actual school crises

Overview of Two Group Crisis Intervention Protocols

Objective: To provide the course participants with information on various crisis response models that can be used following a crisis event. Two of the most commonly used group crisis intervention models were discussed.

Content Provided: The co-trainers discussed various crisis response models. The two models reviewed were the group crisis intervention protocol developed and used by the National Organization of Victim Assistance (NOVA) and the stages of crisis response espoused through the Critical Incident Stress Management (CISM) system. These two models of group crisis intervention have sometimes been implemented in school settings, although these models have not been used as a primary means of responding in the co-trainers' school district, and therefore were not comprehensively reviewed in this curriculum. For the NOVA model, the co-trainers discussed the response goals and elements, the group crisis intervention protocol, the SS-VV-PP model of responding, and the roles and responsibilities of the crisis responders when using the NOVA model. Since both co-trainers are NOVA trained responders, they were also able to provide real-life examples of two previous NOVA-style responses that they had participated in as crisis responders in their school district. The discussion of the CISM model included a review of the model's theory and crisis response phases. The co-trainers then summarized the key similarities and differences between the two models.

Teaching Strategies Used: PowerPoint presentation with opportunities for discussion/questions and real-life examples from actual school crises

Counseling Role-play and Debriefing

Objective: To provide an opportunity for the course participants to practice applying and receiving feedback on some of the basic counseling skills discussed in this session

Content Provided: The course participants worked in groups of three to complete this counseling role-play activity. The role-play scenarios used for this activity are included in the supplemental materials section of this curriculum guide. For each scenario, one course participant role-played the scenario listed, one participant practiced applying counseling skills as the crisis responder, and one participant acted as a process observer. The co-trainers also moved from group to group to observe the application of the counseling skills. At the end of each five-minute counseling session, the participants spent five minutes sharing feedback with each other and then discussed their experiences with the entire class. The groups then read the next scenario, changed roles, and completed the next role-play in the same manner. After all three scenarios were completed, the co-trainers led a debriefing with the entire class for an additional fifteen minutes. The debriefing structure used for this activity was described at the beginning of this curriculum guide.

Teaching Strategies Used: Experiential learning through small group role-plays with debriefing following each of the three role-plays

Modeling of Individual Counseling Skills

Objective: Based on feedback from the course participants, the co-trainers offered to model individual counseling following the regularly scheduled class. The objective of this activity was to give the course participants the opportunity to observe experienced crisis responders using the various counseling skills discussed and practiced in this session. The co-trainers each took turns role-playing two of the scenarios used earlier by the participants.

Content Provided: No additional content was provided during this activity. The role-play scenarios used for this activity can be found in the supplemental materials at the end of this curriculum guide. The co-trainers modeled aspects of the content that was already discussed in this session. After modeling the counseling skills, the co-trainers discussed the activity with the participants and answered questions.

Teaching Strategies Used: Modeling of desired skills by co-trainers with opportunities for participants to ask questions and debrief following the role-play

Session 7: Final Simulation/Conclusion/Focus Groups

Time: 2 hours, 15 minutes

Learning Goals for Session 7

The critical learning goals for this session involved providing the participants with the opportunity to practice, discuss, and reflect on the crisis preparation and response skills that they learned about in the previous six sessions.

Training Agenda for Session 7

- Introduction of session seven objectives (5 minutes)
- Personal learning goal responses (5 minutes)
- Post-test crisis simulation activity and debriefing (60 minutes)
- Course conclusion (5 minutes)
- Focus groups (60 minutes)

Objectives, Content Provided, and Teaching Strategies for Session 7 Agenda Items

Personal Learning Goal Responses

Objectives: To help the participants reflect on their learning during the course and to provide the researcher with information on the effectiveness of the course content and various teaching strategies in helping the learners meet their individual learning goals

Content Provided: There was not any new content provided during this activity. The participants reflected on their personal learning goals that they had identified during session one.

Teaching Strategies Used: This activity gave the course participants the opportunity to reflect on their learning based on the key skills and strategies they hoped to learn during the course

Simulation Activity and Debriefing

Objectives: To give the participants the opportunity to practice their group crisis response skills and to participate in a structured debriefing following the activity to facilitate learning and demonstrate growth during the course. This simulation activity was completed at the end of the course so that the participants could practice implementing the various skills they had learned throughout the course and reflect on their growth as crisis responders since the session one simulation. The participants' performance during this simulation activity was also used to collect information on their

group crisis response skills at the end of the training as part of the researcher's data collection.

Content Provided: The participants worked in two groups to respond to the crisis simulation found in Appendix B. The co-trainers then led a structured debriefing to discuss participant reactions, important learning concepts, and lessons learned. The debriefing structure used for this activity was described at the beginning of this curriculum guide. Some of the key learning concepts discussed included verifying information, notifying appropriate personnel, identifying needed resources, assessing students and staff impacted by the crisis, planning for a morning staff meeting, developing the necessary statements, and planning the crisis response strategies to be implemented during the school day.

Teaching Strategies Used: Experiential learning through group crisis response to crisis simulation and structured debriefing of simulation by co-trainers

Focus Groups

Objectives: To provide a forum for the class participants to reflect on their learning and to collect feedback that could be used to improve the course content and delivery

Content Provided: There was not any new content provided during the focus group sessions. The focus group topic guide is located in Appendix F. The focus group facilitators led structured discussions about the scope and sequence of the course and the teaching strategies utilized. The facilitators' goals were to help the participants reflect on their learning and to collect data to be used by the researcher to improve the curriculum for future trainings.

Teaching Strategies Used: Structured group discussion of key learning objectives to help reflect on the various strategies and lessons learned

Supplementary Materials

Session 4 Supplementary Materials: Assessing Degree of Impact Simulation*

* The names of the schools have been modified to maintain confidentiality.

Directions:

We are now going to begin an applied activity to help you practice determining the level of impact and resources needed to respond to a crisis. Please try to consider all of the people, locations, materials, and informational resources that will be needed to respond to this crisis. You have two main tasks. First, identify the various groups that will be impacted by the crisis and why they will need support. Second, determine what supports, if any, are needed immediately, as well as what supports will be needed tomorrow and during the rest of the week.

We will not be answering any extra questions about the scenario. If at any time this scenario feels overwhelming or too intense for anyone, please feel free to not participate in the discussion at your table.

The following crisis took place this afternoon at 3:10 PM. The date is Tuesday, September 14. A car with three students from Alpine Ridge High School was driving on Rte. 201 headed west. The car struck a school bus from Greentown Middle School that was exiting the campus. The bus was loaded with students that were on their way home. You know the following information:

- Greentown MS is one of four schools on the campus. The other three schools are Valley HS, Oakdale ES, and the Mountain Road School, a special education school for significantly handicapped students.
- The car struck the bus at a high rate of speed, ejecting two of the passengers in the car. The car flipped and ended up on the edge of the field running alongside Rte. 201.
- As a result of the accident, Rte. 201 was closed in both directions for 75 minutes.
- Two students from Alpine Ridge High School were killed instantly in the accident, the driver and one of the ejected passengers. The third student was flown to shock trauma in serious condition. The shock trauma helicopter landed in the parking lot at Valley HS.
 - The injured student was sitting in the back seat and was ejected from the car. She was a junior at the school and was an only child. She was a

student assistant in Alpine Ridge High School's academic life skills program. Her mother teaches at Woodlands MS.

- The driver, who was killed instantly, was a senior male and was a member of the football team for the last two years. He was also an only child.
 - The front seat passenger was also killed after being ejected from the car. This student was a senior who has two younger siblings at Riverview ES. The student was a member of the JV football team as a freshman, but did not continue with football and was not involved in any other extra curricular activities.
- Four students on the bus suffered minor injuries and were taken to the hospital as a precaution. All four were released later that evening. The other students on the bus and the bus driver were not injured.
 - Five of the Greentown MS buses had already left the campus, but the remaining 7 buses were waiting in line to exit the campus.
 - Valley HS and the Mountain Road School dismiss their students earlier than the Greentown MS dismissal.
 - Due to the road closure, Oakdale ES could not dismiss at the normal time. The students were held at school for an extra hour waiting for the road to be opened.
 - Students from the Valley HS marching band were practicing in a corner of the parking lot and heard the accident. A few students went over to see what had happened before the police and fire department arrived and saw one of the ejected passengers in the road. The students also said that a few beer cans were near the overturned car. A group of students initially gathered in the parking lot near the accident site, but were moved by the police so that the helicopter could land.

Session 5 Supplementary Materials: Scenarios for the Activity on Planning for the Weeks and Months Following the Crisis

Scenario #1:

A student committed suicide on a Saturday in October at the school. The student was found on the football field. The student was frequently teased and had told a few students that he wasn't going to be going to the school anymore because he was tired of all of the teasing. This is the third student death at the school in the last year (including deaths due to brain cancer and a car accident).

Scenario # 2:

A teacher was assaulted in her home and died the next day due to her injuries. The police reported that she was assaulted and stabbed multiple times. Four days later, a former student, who had a significant history of behavior problems and had recently been expelled from the school, was arrested and charged with first-degree murder.

Scenario #3:

A fourth grade student suffered third degree burns over 40% of her body due to a house fire. The fire department determined that the fire started when a Christmas tree fell over and landed on a candle. Sadly, an older brother, who was babysitting at the time, died in the fire. The student returned to school after one month in the hospital with noticeable scarring on her arms, face, and neck.

Scenario # 4:

Two high school seniors were killed in a one-car accident over spring break. Autopsies indicated that both students were legally drunk at the time of the accident.

Session 5 Supplementary Materials: Group Discussion Recording Sheet for the Planning for the Weeks and Months Following the Crisis Activity

Discussion Recording Sheet

Based on your crisis scenario, what does your school crisis team need to consider . . .

The day after the crisis:

Two to five days after the crisis:

A week after the crisis:

A month after the crisis:

Six months after the crisis:

One year after the crisis:

Session 5 Supplementary Materials: Scavenger Hunt Questions*

* Scavenger hunt questions number 3, 6, and 15 included identifying information and have been modified.

Crisis Intervention Resource Manual Scavenger Hunt

- 1) While responding to a crisis at a middle school, a parent asks you for information on talking to his child about suicide. How can you help him?
- 2) Is attending a funeral an excused absence for students?
- 3) Who is the contact person for the *** & *** foundation?
- 4) What is step number 17 on the crisis intervention procedures?
- 5) A student commits suicide at a high school. During the crisis response, the principal asks you a question about developing a memorial committee. Where can you find information on this topic?
- 6) What are the names of the four crisis clusters in the school district?
- 7) What are at least three feelings that students of any age may feel when experiencing a grief reaction?
- 8) Your school needs support preparing statements for your large ESOL population. What office and number can you call?
- 9) List one website you can refer a teacher to for support/information about trauma.
- 10) What are three things a student may feel in reaction to a suicide?
- 11) You are responding to a crisis and wish that you had a checklist to make sure your team is taking all of the necessary steps. Where can you find a crisis intervention checklist?

- 12) A first grade student has died after a long-term battle with brain cancer. Where can you find a statement shell to use in developing a statement for students?
- 13) You have met with nine students during a crisis response. Who do you give the copies of the Crisis Intervention Team Student Contact Form to?
- 14) Your school-based crisis team holds a team meeting for the first time in three years. Since you have the full support of your new administrators, you would like some guidelines for developing an exemplary team. Where can you find these guidelines?
- 15) What is the telephone number for the *** crisis hotline?
- 16) Where can you find a handout on helping children cope with war and terrorism?
- 17) What two high schools are in the Eastern cluster?
- 18) How many debriefing forms are in the crisis manual?
- 19) Your principal has asked for your guidance in responding to media questions. Where can you find information that may help her?
- 20) And last . . .
Who helped revise the crisis cluster manual in 2004?

Session 5 Supplementary Materials: Lessons Learned Handout*

Lessons Learned

Lessons learned - preparing for a school response before a crisis occurs

- Schools that prepare materials and crisis packets ahead of time and regularly update phone trees tend to have more efficient responses
- School-based teams that regularly participate in professional development activities and periodically meet to review crisis response procedures tend to have less chaotic and more supportive responses
- Schools that share basic information on crisis response procedures with all staff tend to have more support from the entire staff when crises occur
- Consider cultural factors ahead of time – if your school has a high ESOL population, develop contacts and procedures for quickly translating statements and/or letters home – have these procedures in place before the chaos occurs
- Consider the physical and human resource needs prior to a crisis occurring

Lessons learned - preparing for a school response after a crisis has occurred

- Don't underestimate the impact of a loss; in many cases there may be an unexpected impact for certain individuals
- Anticipate a greater response if the school community has experienced repeated traumas
- Identify a family liaison very early in the crisis response if the school will need permission from the family to share personal information
- It is always better to have more people from the school-based and cluster teams than not enough – people who are not needed can be sent back to their schools
- Whenever possible, meet ahead of time with your full school-based team, with all members present, to plan out the response (the night before, the weekend)

Lessons learned – role of the crisis cluster team vs. role of school-based team

- The school-based team and staff should always be the primary responders:
 - School-based staff follow the schedule/s of the deceased
 - School-based staff should be available in central counseling areas
 - School-based staff provide a comforting presence for students; the students look to these familiar adults for their safety and security

Lessons learned - supporting staff

- Simple, caring gestures from other schools help greatly (i.e., sending food)
- Have a few extra substitute teachers in the building to help cover classes of teachers who need a break – preferably, these should be familiar subs
- Get the support of the PTA (food, extra adults, handling phone calls)
- Have food in places where the staff tends to cluster; also have a crisis team member in those locations if someone wants to talk
- Getting accurate information out to the entire staff as soon as possible is critical – make sure that everyone on the phone tree is contacted or that a contingency plan is in place to get in touch with those not reached by the phone tree – staff have become very upset when they found out walking into school what others knew the night before
- Develop a list of possible rumors and questions that teachers might hear, as well as appropriate responses for these rumors and questions
- Warn staff that anyone can be impacted based on their personal loss history, not just students or staff who were close to the deceased
- Do not put a staff member in a position that you know they can't handle effectively – this can and will make the crisis situation worse for students and staff
- Give staff members permission to show their emotions and ask for help as needed
- Always have information available about supports for staff (i.e., Employee Assistance Program)

Lessons learned - supporting impacted students, families, and communities

- Everyone responds to grief differently
- Cultural beliefs can play a large role in how students and families show their grief and choose to seek out or not seek out support
- When possible, have a school staff member read statements to the students; if a crisis cluster member is reading the statement, make sure a school-based person is also in the room
- Warn students that anyone can be impacted based on their personal loss history, not just students or staff who were close to the deceased; while some students may be grieving because of another loss they are reminded of, the friends of the deceased may become angry if they feel that non-friends are “faking” their grief or overreacting
- Prepare students for the range of grief responses they will see during the school day, as some students will be significantly impacted, others may not be impacted at all, and some students may even joke about the death
- Carefully consider room arrangements for crisis counseling, as using larger rooms (i.e., libraries, cafeterias) to support multiple crisis counseling groups will not be effective unless the environment is carefully managed
 - Not too many students
 - Adult monitoring for signing in and out of the room
 - Adequate spacing between groups
 - Consider how the room is naturally separated

Lessons learned - Debriefing and long-term follow-up

- Make sure to take care of the care-takers
- Schools that systematically debrief following a crisis usually are better prepared in the days and weeks ahead; debriefing is not a one-time activity; schools that effectively implement long-term follow-up procedures often review and debrief the response multiple times following the crisis (after the funeral, one week later, etc.)
- Don't make decisions about long-term memorials immediately; form a memorial committee to help in the decision-making

Session 6 Supplementary Materials: Role-play Scenarios for Counseling Skills Activity

Role Play Scenario #1 – Play the role as an adult working at the school:

A teacher at your school was killed in a car accident in a large highway pile-up over the weekend.

Role Play Scenario #2 – Play the role as a child:

Your older brother is battling cancer. Your teacher just announced that your favorite teacher from last year died yesterday after a long fight with cancer.

Role Play Scenario #3 – Play the role as a child:

Your teacher just read a statement in your math class that one of your classmates died this morning from suicide. He was not a best friend, but you ate lunch with him every day and were friendly.

APPENDIX D: Field Notes

Field Notes - Date:

Time:

Location:

Session:

Activities/Topics:

Page:

Observations

Reflections

5) What topic was the most confusing or “muddiest”?

6) What topic was the most surprising?

7) What teaching techniques and/or strategies were most effective in helping you learn today’s content?

8) What teaching techniques and/or strategies were least effective in helping you learn today’s content?

APPENDIX F: District’s Professional Development Feedback Form

** The district’s professional development feedback form included the short answer and Likert-style prompts listed below. In addition, the form included prompts about basic demographic information that could potentially be used to identify the respondent. Due to the researcher’s requirement for anonymous feedback, the participants in this study were not asked to complete the demographic portion of the feedback form. The questions that the participants were asked to respond to are listed below.*

Professional Development Feedback Form Questions

In what specific ways did this professional development meet your expectations?

In what specific ways did this professional development not meet your expectations?

Something from this professional development that I plan to use is:

Something I need is:

	Strongly Agree	Agree	Somewhat Agree	Disagree	Somewhat Disagree	N/A
<i>Overall, this professional development . . .</i>						
Was effective	<input type="radio"/>					
Met the intended outcomes	<input type="radio"/>					
Increased my knowledge and/or skills regarding the learner	<input type="radio"/>					
Increased my knowledge and/or skills regarding the curriculum/content	<input type="radio"/>					
Increased my knowledge and/or skills regarding the pedagogy	<input type="radio"/>					
Applied directly to my situation	<input type="radio"/>					
<i>Overall, the presenters . . .</i>						
Were knowledgeable and skilled	<input type="radio"/>					
Modeled good instruction with effective, engaging experiences	<input type="radio"/>					
Addressed the learning style of participants	<input type="radio"/>					
Attended to physical comforts	<input type="radio"/>					

APPENDIX G: Focus Group Guide/Questions

Focus Group Topic Guide/Questions

5:30 – 5:33 minutes

Moderator: Thank you for agreeing to participate in this focus group. I am (*introduce self*). We will be working together for the next hour to help evaluate and refine the crisis curriculum and teaching strategies from the class you just completed. I would like to remind you at this time that you are free to drop out of the focus group at any time without penalty. Also, please remember that your responses will be transcribed and coded so that any of your feedback that is used is reported anonymously.

I would also like to emphasize that there are no right or wrong answers to the questions I am going to ask you. We feel that it is very important to get your truthful and honest feedback on the curriculum and the teaching strategies so that the course can be improved for future participants.

Do you have any questions at this time?

5:33 – 5:53 minutes (Questions/discussion regarding the overall course)

Moderator questions:

Let's get started. What were your overall impressions of the crisis course?

How did the sessions seem to flow together from week to week?

How well were the activities mixed together to combine opportunities to learn new information, such as through a power point, with opportunities to practice the skills, such as with a simulation or role-play?

If you could change anything about the way in which the course was taught, what would you change?

On the same note, what part or parts of the course would you definitely want to keep the same?

5:50 – 6:10 (Questions regarding the teaching strategies)

Let's talk a little more about some of the specific teaching techniques that were used in the course. What did you think of the simulation activities?

Do you think that these were a good way to learn and practice your crisis response skills?

If so, what skills do you think you learned from completing the simulation activities?

If any of you responded to a school crisis before, did the simulation experiences seem similar to responding to an actual crisis? (If so, how?)

How effective were some of the teacher strategies that were used, such as the i-movie, power points, and lectures?

6:10 – 6:25 minutes (questions about the curriculum topics)

Moderator: Now that we have talked about some of the teaching techniques that were used, I would like to change the topic and talk about the actual content of the course.

I am briefly going to review the topics from the six previous sessions in case you have forgotten anything. During the first class, you participated in a crisis simulation and learned about the county's crisis response model. For the second class, you learned about the nature of school crises and grief responses. The third and fourth classes covered procedures for crisis preparation and response. The fifth class focused on debriefing and follow-up, and last week you covered counseling interventions.

What topics were most helpful to you and why?

What topic or topics did you wish you had spent more time covering?

Were there any topics that weren't helpful?

Were there any topics that were confusing? If so, which ones and why?

What topics clarified ideas for you?

6:25 – 6:30 minutes – Debriefing

Now is our time to debrief after your focus group experience.

Do you have any other input on the crisis course?

Do you have any questions about what you have just done?

Do you have any questions about what will happen next?

Do you have any concerns about confidentiality?

If you don't have any more questions, I would like to thank you again for your participation in the focus group. Your feedback will be very helpful in further refining the curriculum and making this course a good experience for future participants

APPENDIX H: Crisis Simulation Scoring Guide/Rubric

Crisis Simulation Scoring Guide

The crisis simulation scoring guide is designed using rubric-style scoring. A group of crisis responders can receive no credit, partial credit, or full credit for each section based on their response.

SECTION 1: VERIFYING FACTS (can earn 0 – 6 points)

Scoring note: Points for this section are higher due to the importance of verifying information. Information can only be officially verified through a direct family member, the police, or the fire department. If the team did not write “verify/verified facts” on their action sheets, but they did clearly talk about this step, they should receive credit. Of the first three boxes, select the one box that best describes the team’s response.

- The team did not mention any attempts to verify facts about the crisis event (0 pts.).
- The team mentioned the need for verifying information but made no other attempts to follow through on this activity (2 pt.).
- The team considered the need to verify facts regarding the crisis event and identified at least one step they could take or did take to verify information, such as contacting the police or family, calling school system’s media information director, etc. (4 pts.).

In addition to the possible points described above, two additional points can be earned based on the following criteria.

- The team used only verified information in any statements/letters that were released to the school community. To earn these two points, the team only has to accurately use information that they actually verified, so they could earn a score of 0 above and still receive these two points (2 pts.).

Total points for section 1

SECTION 2: NOTIFYING APPROPRIATE PERSONNEL (can earn 0 – 6 points)

- The team made no attempts to notify appropriate school system personnel regarding the crisis (0 pts.).

Scoring note: Points for this section are higher due to the importance of the notification procedures. Check all boxes that apply.

- The team notified one of the identified cluster leadership contacts (the Student Services facilitator or the Cluster Crisis Team Leader) regarding the crisis (2 pts.).
- The team ensured that all school-based crisis team members have been notified or took steps to ensure that they are notified as soon as possible (2 pts.).
- The team notified other schools potentially impacted by the crisis (2 pts.).

Total points for section 2

SECTION 3: IDENTIFY AT-RISK STAFF MEMBERS (can earn 0 – 4 points)

- The team did not consider at-risk staff members (0 pts.).

Scoring Note: The team receives 1 point for each of the following boxes. Check all boxes that apply.

- The team identified any staff member/s who may be at-risk as a result of the crisis event (1 pt.).
- The team identified concrete step/s to be used to support any staff members identified as being at an increased level of risk as a result of the crisis (1 pt.).
- The team made arrangements to notify the staff member about the crisis event separately rather than in the full staff meeting (1 pt.).
- The team identified any staff member/s who may be at-risk due to other losses or recent stressors in their lives (1 pt.).

Total points for section 3

Section 4: IDENTIFY AT-RISK STUDENTS (can earn 0 – 6 pts.)

The team did not take any steps to identify at-risk students (0 pts.).

Scoring Note: The team receives 1 point for each of the following boxes. Check all boxes that apply.

The team stated that at-risk students should be identified (1 pt.).

The team considered the students in the class or classes of the deceased person as being at an increased level of risk (1 pt.).

The team considered friends/siblings/relatives (in the case of a student) or previous students (in the case of a staff member) who are at-risk due to the crisis event (1 pt.).

The team considered students involved in special group activities, teams, after-school activities, etc. who are at-risk due to the crisis event as a result of their relationship with the crisis victim/s (1 pt.).

The team considered students who may not be directly connected to the deceased but possibly have experienced other losses or recent stressors that place them at-risk due to the crisis event (1 pt.).

The team made arrangements to pull any of the students identified as at-risk and share the information about the crisis with them separately rather than with other students in their class or classes (1 pt.).

Total points for section 4

SECTION 5: ASSESS NUMBER OF CRISIS RESPONDERS NEEDED AND HOW THEY WILL BE USED (can earn 0 – 7 pts.)

- The team did not consider how many crisis responders were needed or how they would be used (0 pts.).

Scoring Note: The team receives 1 point for each of the following boxes. Check all boxes that apply.

- The team identified one or more crisis responders to follow the schedule of the crisis victim (1 pt.).
- The team identified which crisis responders will be available for counseling in a designated central location (1 pt.).
- The team identified one or more crisis responders to support at-risk students who have been previously identified (i.e., teammates, friends) (1 pt.).
- The team identified one or more crisis responders to support at-risk staff who have been previously identified as being at an increased level of risk (1 pt.).
- The team identified the administrator responsible for leading the crisis response (1 pt.).
- The team assigned a crisis team member to work with the administrator responsible for leading the crisis response (1 pt.).
- The team requested crisis cluster team support. Due to the sudden, unexpected nature of the crisis, the team asked for additional cluster crisis team members to be available to provide coverage as needed (1 pt.).

Total points for section 5

SECTION 6: IDENTIFY OTHER SCHOOL RESOURCES NEEDED (rooms, etc.) AND HOW THEY WILL BE USED (can earn 0 – 8 pts.)

- The team did not identify which rooms would be used or how supports could be accessed (0 pts.).

Scoring Note: The team receives 1 point for each of the following boxes. Check all boxes that apply.

- The team identified a room or rooms that could be used for crisis counseling activities with students (1 pt.).
- The team identified how crisis counseling supports would be accessed (1 pt.).
- The team identified a room that could be used by staff (to support each other, get food, meet with crisis supports, etc.) (1 pt.).
- The team identified a room that could be used for any parents and/or community members who came to the school due to the crisis (1 pt.).
- The team called in substitute teachers to provide additional coverage for staff as needed, such as floating substitutes to cover classes (1 pt.).
- The team made arrangements to have materials ready for students to make cards, remembrance banners, and other memorial activities (1 pt.).
- The team contacted the PTA to provide additional supports during the day, such as food or extra adults (1 pt.).
- The team assigned a familiar staff member and/or substitute to help cover the schedule of the crisis victim (1 pt.).

Total points for section 6

SECTION 7: DEVELOP NECESSARY STATEMENTS (can earn 0 – 11 points)

- If the team reads any information or statements over the public address system or to large groups of students, they do not receive any points for this section no matter what information was shared (0 pts. for section).

Scoring Note: Score the remaining items using the following guide. The team can receive 1 point for developing a statement to read to students that shares verified information and can receive additional points based on the remaining items. Please check off all boxes that apply.

- The team did not develop any statements or did develop a statement that was based on non-verified and/or incorrect information (0 pts.).
- The team developed a statement to read to students that shared the verified information regarding the crisis event (1 pt.).

Scoring note: The team receives 1 additional point for each of the following boxes that are checked if their statement included only verified information about the crisis event.

- The statement included directions for the teachers about reading the statement (1 pt.).
- The statement for students discussed common grief reactions (1 pt.).
- The statement for students discussed the supports available in the school (1 pt.).
- The statement for students included possible responses to rumors for the teachers (1 pt.).
- The team developed a statement to be read to the staff at the morning staff meeting (1 pt.).
- The team stated that a letter needed to be developed to go home with the same verified information (1 pt.).
- The team prepared a statement for the secretaries to read when they answer the phones and/or respond to parents in the front office (1 pt.).
- The team gave the secretaries a phone log (1 pt.).
- The team developed an appropriate letter to go home (2 pts.).

Total points for section 7

SECTION 8: PLAN AGENDA FOR THE STAFF MEETING (can earn 0 – 21 pts.)
- Next two pages

The team did not plan an agenda for a before school staff meeting (0 pts.).

Scoring note: The team earns 1 point for each of the following items on the agenda.

Introduces crisis responders and/or crisis team members (1 pt.).

Updates the staff as an entire group on the verified crisis information (1 pt.).

Informs staff of how information will be updated throughout the day (1 pt.).

Discusses common grief reactions and reactions that may require a referral for support from a crisis responder (1 pt.).

Discusses the importance of the staff modeling appropriate grief responses for the students (1 pt.).

Identifies at-risk students and asks staff if at-risk students were missed (1 pt.).

Shares the statement to read to students with the staff (1 pt.).

Clearly identifies when the statement will be read (1pt.).

Asks staff members to practice reading the statement once to themselves (1 pt.).

Talks to staff about possible rumors and how to respond to rumors (1 pt.).

Tells staff how to get help reading the statement, as needed (1 pt.).

Reviews procedures for referring students for support (1 pt.).

Talks about the schedule for the day and any changes to the schedule (1 pt.).

Talks about school activities (tests, quizzes, etc.) and modifying these expectations (1pt.).

Talks about classroom strategies to support grieving students (guided discussions, cards, artwork, etc.) (1 pt.).

Gives staff permission to take a break and/or get support as needed (1 pt.).

(Section 8 – Agenda for staff meeting, is continued on the next page)

Section 8 Continued:

- Provides staff with information on how they can get assistance for themselves during the day as needed (i.e., sub for room, help reading statements, room where they can go for food, etc.) (1 pt.).
- Tells staff who will be taking the role of family liaison (1 pt.).
- Gives staff an opportunity to ask any questions before ending the meeting (1 pt.).
- Reminds the staff of the after-school staff meeting/debriefing (1 pt.).
- The team remembered to ask all of the staff to check for any of their team members who might be late or missing from the meeting (1 pt.).

Total points for section 8

SECTION 9: MISCELLANEOUS STEPS (can earn 0 – 11+ points).

Scoring note: Check all boxes that apply. The team can earn 11 or more additional points based on the number of “other appropriate steps” identified.

- Team specified procedures for reading statements to late students (1 pt.).
- The team considered various school events, as appropriate, that might need to be addressed and/or canceled as a result of the crisis event, such as field trips, sporting events, concerts, etc. (1 pt.).
- Identified family liaison (1 pt.).
- Identified media liaison (1 pt.).
- Discussed media-related issues with staff, such as how to respond to requests for information (1 pt.).
- The team identified individuals to support the front office staff in handling the crisis response, as appropriate, including helping with phone calls, attendance, etc. (1 pt.).
- The team identified a staff member to serve as a point person with other impacted schools and/or shared statements with these schools (1 pt.).
- The team identified the forms that would be needed during the response (1 pt.).
- The team discussed coverage to free school-based crisis team members from their regular schedules to provide crisis supports (1 pt.).
- Other appropriate step identified that was not included on the rubric (1 pt.).

Specify step: _____

- Other appropriate step identified that was not included on the rubric (1 pt.).

Specify step: _____

- Other appropriate step identified that was not included on the rubric (1 pt.).

Specify step: _____

Total points for section 9

RUBRIC SCORING SUMMARY

Section 1 Total ___ / 6

Section 2 Total ___ / 6

Section 3 Total ___ / 4

Section 4 Total ___ / 6

Section 5 Total ___ / 7

Section 6 Total ___ / 8

Section 7 Total ___ / 11

Section 8 Total ___ / 21

Section 9 Total ___ / 11+

Total Score for Rubric: ___ / 80+

APPENDIX I: Personal Learning Goals Activity

Personal Learning Goals

Code:

Date:

To better meet your needs and interests and to help measure your learning as a result of taking this class, we would like you to identify your top three personal learning goals for this course. We will use these goals to help us tailor the course objectives to meet your needs. In addition, we will ask you to rate your progress toward meeting these goals at the end of the seven-week course.

For example, one goal might be to learn about strategies that can be used by the classroom teacher in the classroom to work with groups of students following a crisis.

Goal 1: _____

Goal 2: _____

Goal 3: _____

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