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An Examination of a School-Based Intervention for Children Who Have Experienced Trauma

from a Natural Disaster

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An Examination of a School-Based Intervention for Children Who Have Experienced Trauma from a Natural Disaster

by

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An Examination of a School-Based Intervention for Children Who Have Experienced Trauma from a Natural Disaster

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Natural disasters can have a devastating impact on the social and emotional well-being of children and adolescents (Garrett et al., 2007; Kataoka, Rowan, & Hoagwood, 2009; Walsh, 2007). Exposure to disasters puts young people at risk for a number of stressors such as displacement from their homes, loss of friends, family, home and community (Abigail Gewirtz, Forgatch, & Wieling, 2008; La Greca & Silverman, 2010). They are also at a higher risk for future mental health issues related to the event including anxiety and depressive disorders (Jaycox; et al., 2010; Sapienza & Masten, 2011). While there are many interventions that address mental health symptoms, there is a gap in widely accessible prevention programming for mitigation of future mental health issues for young people affected by a disaster (Silverman et al., 2008). To address the gap in services this dissertation sought to examine the efficacy of an intervention, the Journey of Hope (JoH), an eight-session school based model designed to be delivered to the aggregate of children and adolescents affected by disasters. This three article dissertation presents the JoH through: (1) a conceptual description of the intervention; (2) a quasi-experimental waitlist control study and; (3) a qualitative case study. Findings from the quantitative and qualitative studies indicate that after participation in the JoH, participants had an increase in protective factors such as positive coping skills, pro-social behaviors, and affect regulation. The qualitative case study also indicated that children learned about disaster related issues such as grief, anger, and peer victimization. Future research should examine the

longitudinal impact of the intervention through larger samples, different geographical and cultural contexts, and with sensitive measurement instruments.

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CHAPTER I

Introduction

Natural disasters such as hurricanes, earthquakes, tsunamis, floods and wildfires can impact a child's social and emotional well-being (Garrett et al., 2007; Kataoka et al., 2009; Walsh, 2007). Disaster exposure makes young people at risk for a range of stressors such as the loss of home and community, displacement to an unfamiliar school and neighborhood, loss of friends or family members, and separation from their family (Abigail Gewirtz et al., 2008; La Greca & Silverman, 2010) .

The psychosocial impact on children affected by disasters can be debilitating and may appear immediately or surface weeks or months after experiencing the event. The emotional strain on children affected by a traumatic event may be exhibited in a variety of ways, including re-experiencing the event, intrusive thoughts, avoidance of similar situations around the trauma, hyper-arousal and anger (Wang et al., 2006). Externalizing symptoms (anger and acting out at school and at home) and internalizing symptoms (anxiety and depression) may also be mental health consequences for children who have experienced a disaster (Jaycox, Morse, Tanielian, Stein, 2006). Moreover, common post-trauma psychological disorders can include acute stress reactions, adjustment disorders, depression, panic disorders, PTSD and anxiety disorders (Kar, 2009)

Young people who experience a disaster may display various negative mental health symptoms associated with exposure to the traumatic event. Reactions to the events can include short term Acute Stress Disorder or may develop into longer term Post Traumatic Stress (PTS) symptoms which can present through a variety of symptoms (Chemtob, 2006; La Greca & Silverman, 2009). Acute Stress Disorder as defined by the DSM-IV is limited to three months after the event and can include the following symptoms: (1) intrusive distressing memories of

the event, (2) recurrent distressing dreams, (4) flashbacks, (5) intense distress at reminders, (4) numbing, detachment, reduced responsiveness, (6) altered sense of reality, (7) inability to remember important aspect(s) of the event, (8) avoidance of thoughts, conversations, feelings (9) avoidance of places and physical reminders, (10) sleep disturbances, (11) hyper-vigilance, (12) irritability and/or aggressive behavior, (13) exaggerated startle response, and (14) agitation or restlessness (Cummins, 2009). Acute Stress Disorder (ASD) is often not identified or treated unless the child has experienced a physical trauma (i.e. burn, broken limb), however, a recent cross-national study of 1645 children between the ages of 5-17 who experienced a trauma indicated 51.4% of the youth experienced avoidance of thought, conversations or feelings, 42.5% experienced an altered sense of reality and 40.6% experienced intrusive or distressing memories of the event (Cummins, 2009). Furthermore, Kassam et al. (2012) found that up to 12% of children who experienced a trauma had eight or more ASD symptoms.

PTSD symptoms in children are similar to ASD symptoms, however, are longer in duration (>3 months) and severity, and are more commonly diagnosed by psychologists or social workers. Symptoms may include: (1) re-experiencing symptoms (i.e. distressing nightmares, intrusive recollections), (2) avoidant/numbing Symptoms (i.e. avoidance of activities, places or people associated with the stressor) and/or (3) hyper-arousal symptoms (i.e. sleep problems, hyper-vigilance, exaggerated startle response) (Farver, Lonigan, & Eppe, 2009). A systematic review conducted by Neria, Nandi and Galea (2008) of 18 studies examining the prevalence of PTSD in youth found that approximately 27% of youth who directly experience a disaster still have post trauma symptoms three months after the event.

In addition to ASD and PTSD, there are a number of other mental health issues related to exposure to traumatic events such as natural disasters. In the short term, children and

adolescents may experience anxiety, nervousness, anger, depression, and acting out at school and/or at home (Jaycox, Morse, Tanielian, Stein, 2006; Kataoka et al., 2003). Over the longer-term children and youth may experience an increased risk for substance use, delinquent behavior, personality disorders, suicide attempts and future medical problems including cancer, diabetes and heart disease (Dube et al., 2001; Jaycox, Morse, Tanielian, Stein, 2006; Putnam, 2006). Considering the wealth of research on post-trauma reactions, it is logical to conclude that mental health services are essential to treat and prevent adverse psychological symptoms on children and adolescents (Putnam, 2006; U.S. Public Health Service, 2004).

School-based mental health interventions are particularly applicable to youth because of the large role the educational system plays in their development. They spend the majority of their time in school where they receive educational instruction, and perhaps even more importantly, they develop and learn social skills (Weist, Rubin, Moore, Adelshiem, & Wrobel, 2007). Schools also serve as one of the most common venues for children and youth with post-trauma conditions to receive services (Merikangas et al., 2011; Weist, Myers, Hastings, Ghuman, & Han, 1999; Weist et al., 2007).

The following dissertation will examine a post-disaster school-based intervention, the Journey of Hope, which attempts to mitigate negative psychological consequences after a disaster through providing psycho-educational knowledge, building protective factors and enhancing coping skills for children and early adolescents. The dissertation will begin with a literature review on the negative psychological symptoms associated with disaster exposure including: Acute Stress Disorder (ASD), Post Traumatic Stress Disorder (PTSD), anxiety and depression. School-based interventions will then be presented as a way to help mitigate negative psychological consequences that may arise after a traumatic event. The Response to Intervention

(RtI) will be introduced, followed by a review of current post-trauma evidence-based and evidence informed interventions.

Finally, the focus of this dissertation, the Journey of Hope will be presented and its theoretical framework discussed. Three papers will then be presented to address the following research questions:

(1) How does the Journey of Hope contribute to the field of post-disaster school-based mental health interventions?

(2) To what extent does the Journey of Hope improve protective factors and coping skills and reduce risk factors post disaster?

(3) How does participation in the Journey of Hope impact participant's ability to understand and process emotions?

Each paper will make a unique contribution to the literature on post disaster programming through introducing the JoH intervention and presenting the evaluative findings. The first paper will provide the conceptual background of the JoH, including its applicability to group work incorporating vignettes from application of the intervention in conducted in New Orleans, LA after a category 3 hurricane struck in 2005. The second paper will provide results from a quasi-experimental study conducted after a tornado in Tuscaloosa, Alabama. Finally, the third paper will present qualitative findings from the research conducted in Tuscaloosa, AL.

CHAPTER II

Literature Review

Trauma

The DSM-IV defines a trauma as:

"when a person experienced, witnessed, or was confronted with an event or events that involve actual or threatened death or serious injury, or a threat to the physical integrity of himself herself or others"(American Psychological Association, 1994, p. 427).

There are various types of trauma that that children and youth may experience. Traumatic events can range from instances including physical and sexual abuse or neglect, to more acute events such as natural disasters, sniper attacks, wars or accidents (Brown et al., 1999; Pine & Cohen, 2002).

Children and youth may display a number of negative mental health symptoms associated with exposure to traumatic events. Reactions can include short term Acute Stress Disorder (ASD) or may develop into longer term Post Traumatic Stress Disorder (PTSD). As noted in the introduction, Acute Stress Disorder is limited to three months after the event and is often not identified or treated unless the child has experienced a physical trauma (i.e. burn, broken limb) (Cohen, 2003). Children who experience PTSD are more commonly diagnosed because of the longer duration and severity of the symptoms.

Acute and Chronic Trauma

Exposure to traumatic events can be both acute and/or chronic. Acute events are often short-lived and occur at a particular time and place. Examples of acute trauma can include: gang-related violence, terrorist attacks, school shooting, natural disasters (e.g. hurricanes, earthquakes, floods), serious motor vehicle accidents, violent or sudden loss of a family member or loved one, and sexual or physical assault (e.g. being raped, beaten or shot) (National Child

Traumatic Stress Network Network, 2012). Conversely, chronic trauma refers to repeated trauma over a long period of time. Chronic trauma includes on-going events such as: long-standing physical or sexual abuse, domestic violence, and prolonged exposure to political violence or wars (National Child Traumatic Stress Network, 2012). While acute and chronic trauma can have a similar long-term impact on youth (i.e. future depression, anxiety disorders, PTSD), research has indicated varying psychological and physical consequences. For example acute or isolated traumatic events tend to produce distinct behavioral responses (i.e. avoidance of reminders of the event, sleep disturbances etc.) whereas chronic trauma can have negative effects on physical and cognitive development (i.e. learning disabilities) (Evans & Kantrowitz, 2002; Streeck-Fischer & Kolk, 2000). The following section will discuss an acute form of trauma, natural disasters, which is the focus of this dissertation.

Natural Disasters

A natural disaster is generally an acute form of trauma and can cause extreme distress on an individual, family and community. People often experience loss of homes, jobs, community and overall sense of safety. Researchers have suggested four common post trauma reactions to natural disasters, including: (1) minimal or no mental health symptoms, (2) chronic clinical psychological problems such as prolonged Post Traumatic Stress Disorder, (3) initial symptoms but recovery over time, and (4) delayed onset of symptoms after a period of being symptom free (Wadsworth, Santiago, & Einhorn, 2009).

Children are one of the most vulnerable groups during and after a natural disaster (Garrett et al., 2007; Kataoka et al., 2009; Walsh, 2007). Common post-disaster mental health issues can include acute stress reactions, adjustment disorders, nervousness, depression, panic disorders, PTSD and anxiety disorders which can all lead to behavioral issues both at school and in the

home (Jaycox, Morse, Tanielian, Stein, 2006; Kataoka et al., 2003). Following is a description and explanation of common mental health symptoms associated with exposure to natural disasters.

Mental Health Symptoms Associated with Disaster Exposure

There are numerous risk factors leading to mental health symptoms in youth who have experienced a natural disaster. Greater exposure to the event, witnessing others in life-threatening situations, having family members die, demographic factors (i.e. younger age and being female), preexisting characteristics of the child (i.e. previous anxiety or depression), the post-trauma recovery environment, child's psychological resources, parental distress and length of displacement have all been found to negatively impact children affected by traumatic events (Cohen et al., 2009; Kar, 2009). Conversely, research has illustrated protective factors for children such as parental and social support, promoting a sense of control, normality and empowerment may mitigate post-traumatic stress symptoms (Cohen et al., 2009; Williams, Alexander, Bolsover, & Bakke, 2008).

Acute Stress Disorder. One common post-disaster reaction, Acute Stress Disorder (ASD), as described by the DSM-IV is limited to being diagnosed three months after the event and can include the following symptoms: intrusive distressing memories of the event, recurrent distressing dreams, flashbacks, intense distress at reminders, numbing, detachment, altered sense of reality, inability to remember important aspect(s) of the event, avoidance of thoughts-conversations- feelings-places and physical reminders of the event, sleep disturbances, hyper-vigilance, irritability and/or aggressive behavior, exaggerated startle response, and agitation or restlessness (Cummins, 2009; Salmon & Bryant, 2002). To be diagnosed with ASD, an individual must experience at least three of five potential dissociative symptoms (emotive

numbing, reduced awareness of environment, depersonalization, dissociative amnesia and de-realization) (American Psychological Association, 2000; Salmon & Bryant, 2002).

A recent cross-national review (Kassam-Adams et al., 2012) of 15 studies on youth who experienced trauma such as a natural disaster conducted in the United States, United Kingdom, Australia and Switzerland of 1645 children between the ages of 5-17 indicated that over half of children and youth who experienced a trauma also experienced PTSD symptoms. Furthermore, the most prevalent symptoms in the study included 51.4% experiencing avoidance of trauma-related thoughts, conversations or feelings; 42.5% experienced an altered sense of reality and 40.6% experienced intrusive or distressing memories of the event (Cummins, 2009; Kassam-Adams et al., 2012). The study also found that ASD symptoms were associated with higher likelihood of functional impairment and future PTSD symptoms (Kassam-Adams et al., 2012).

Post-Traumatic Stress. Post-traumatic Stress Disorder in youth are similar to ASD symptoms, but are longer lasting (>3 months) and are more commonly identified by psychologists or social workers because of prolonged duration and severity of symptoms. The DSM-IV identifies three clusters of post-traumatic stress symptoms, including: re-experiencing symptoms (i.e. distressing nightmares, intrusive recollections), avoidant/numbing symptoms (i.e. avoidance of activities, places or people associated with the stressor), and/or hyper-arousal symptoms (i.e. sleep problems, hyper-vigilance, exaggerated startle response) (Farver et al., 2009).

The first cluster, re-experiencing the event includes symptoms such as: intrusive memories, nightmares feelings of re-living the trauma and physiological or psychological suffering when reminded of the event (Salmon & Bryant, 2002). The second cluster, avoidance symptoms includes: continuous avoidance of feelings reminders and thoughts regarding the

trauma, failure to recall certain parts of the trauma, withdrawal from normal activities, emotional numbing, and sensing a foreshortened future (Salmon & Bryant, 2002). The third cluster, arousal includes symptoms such: as difficulty concentrating, insomnia, irritability, heightened startle response and hyper-vigilance (American Psychological Association, 1994, p. 426).

A systematic review conducted by Neria, Nandi and Galea (2008) of 18 studies examining the prevalence of PTSD in youth found that approximately 27% of youth who directly experience a disaster still have post trauma symptoms three months after the event. The incidence of diagnosed PTSD symptoms in youth can vary based on factors such as chronicity or severity of the trauma, the dosage or proximity of the to the event and the time elapsed after the trauma and (Salmon & Bryant, 2002). Copeland and colleagues (2007) found that post trauma symptoms can often be predicted by pre-existing anxiety disorders, family adversity and exposure to multiples traumas. Moreover, research has shown that PTSD symptoms are often co-morbid with anxiety and depressive symptoms and disorders (Copeland, Keeler, Angold, & Costello, 2007).

Trauma and depression. There is a strong correlation between depressive symptoms in children and adolescents and experiencing acute traumatic event(s) such as hurricanes, earthquakes, school shootings (Brown, Cohen, Johnson, & Smailes, 1999; Costa, Weems, & Pina, 2009; Danielson et al., 2010; Groome & Soureti, 2004; Heim, Newport, Mletzko, Miller, & Nemeroff, 2008; Thienkrua et al., 2006; Wadsworth et al., 2009; Weems & Overstreet, 2008; Weems et al., 2007). For example, a study conducted by Pina, Ortiz, Gottschall, Costa & Weems (2008) of 46 children and adolescents between the ages of 9-17 who experienced hurricane Katrina, a category 3 storm that struck the gulf coast of the United states in 2005, found that high exposure to the hurricane disproportionately predicted depression. Another

study conducted nine months after a Tsunami impacted Southern Thailand, found that among 371 children and adolescents between the ages of 7-14, 11% reached clinical levels of depression (Thienkrua et al., 2006). Similarly, Kar & Kumar (2006) found depression rates of 17.6% in 108 youth within the year following a super-cyclone in India. This study also demonstrated that 63.2% of those who experienced depression post disaster also were diagnosed with PTSD (Kar & Kumar, 2006). Long-term rates of depression can also remain high in children who have experienced a disaster. One study examining general long-term psychological effects after a shipping disaster in Greece found that of the 216 survivors, depressive symptoms were as high as 38.4% five years post-disaster (Bolton et al., 2004). Another study, conducted two years after Hurricane Katrina, found that depression symptoms in children remained 34% higher than pre-hurricane (Roberts, Mitchell, Witman & Taffaro, 2010).

Trauma and anxiety. Anxiety symptoms are also often co-morbid with post-trauma symptoms (i.e. hyper-arousal, avoidance, sleep disturbances) (Kar, 2009). PTSD is described in DSM-IV-TR as a distinct form of anxiety (American Psychological Association, 2000). Post-disaster anxiety symptoms range from acute stress disorder, separation anxiety, generalized anxiety disorders and social anxiety disorder (Copeland et al., 2007; Costa et al., 2009; Groome & Soureti, 2004; Hensley-Maloney & Varela, 2009; Najam et al., 2010; Pine, 2003). Copeland, Keeler, Angold & Costello (2007) suggest that prior anxiety among children under <11 years old with previous trauma exposure are at greater risk for a negative psychological reaction the year following a disaster. Pine (2003) also suggested the level of post-trauma psychopathology may predict the possibility of later psychological symptoms.

A wealth of research links childhood anxiety to the level of disaster exposure. A study by Hoven (2005), for example, found that approximately 30% of children who experience the

September 11th, 2001 attacks on the World Trade Center in New York City, had depressive or anxiety symptoms 5 months after the disaster (Hoven, Duarte, & Lucas, 2005). Another study found that 12.3% of children under 6 years old suffered from separation anxiety disorder within the first year after the World Trade Center attacks. Similar results were found among 302 children and adolescents who experienced the category 3 hurricane in New Orleans in 2005, indicating that anxiety sensitivity and panic symptoms were strongly correlated with exposure to the disaster (Hensley-Maloney & Varela, 2009). Moreover, the study found that higher exposure to the hurricane was significantly related to panic symptoms and anxiety sensitivity in children and adolescents (Hensley-Maloney & Varela, 2009).

School-Based Mental Health

As noted, schools are one of the most common venues for practitioners to deliver mental health interventions after an acute trauma such as a disaster because of the accessibility to children and adolescents (Hoagwood et al., 2007; Kataoka et al., 2009; Weist et al., 2007). School-based interventions target a wide spectrum of issues from prevention of factors that make a youth at risk for future psychosocial disorders such as substance use/abuse, to programs focusing on issues such as trauma or depression (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002; Atkins, Hoagwood, Kutash, & Seidman, 2010; Greenberg, 2004; Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001). It has been estimated that although there is a lack of mental health services for high risk youth, the majority (70-80%) that do receive services receive them through school (Burns et al., 1995; Weist et al., 2007). Given the prevalence of mental health issues and the protective role of school-based mental health interventions, it is appropriate to examine the services targeted to helping youth cope with and overcome exposure to a traumatic event. The following section provides a description of policies that have informed

school-based mental health services and presents a framework, Response to Intervention (RtI), a tiered approach to school-based mental health services.

School-Based Mental Health Policies

After a community-based trauma such as a natural disaster, school shooting, or terrorist event, federal funding is generally allocated to schools and mental health clinics to support the mental health needs of those affected (Dean et al., 2008). This funding stems from policies such as the Individual with Disabilities in Education act (IDEA) and the Presidents New Freedom Commission that support community and school based mental health services (Callegary, 2002; Stephan, Weist, Kataoka, Adelsheim, & Mills, 2007). While these policies are not specific to these community-based traumas, they often inform mental health funding during the immediate response and recovery period.

Presidents New Freedom Commission. The Presidents New Freedom Commission, established in 2003, was a committee directed by the president, to identify policies which could be implemented by federal, state, and local governments to utilize existing resources, improve coordination of services, and promote successful integration of services for children experiencing mental illness (Department of Health and Human Services, 2003). This report supported post-disaster school-based mental health by requiring services be available to young people who are experiencing distress and promote prevention interventions that are geared towards mitigating future mental health issues (Stephan et al., 2007). The commission outlined several recommendations which have informed the implementation of the Individuals with Disabilities in Education act, discussed in the following section. The recommendations included: expanding school mental health programs, universal mental health screening, reducing mental health stigma and preventing suicide (Stephan et al., 2007).

The first recommendation listed in the report involved reducing stigma, which focuses on implementing national campaign to both reduce stigma of receiving mental health services and create awareness of mental health issues. The goal of the campaign would be to normalize mental illness and encourage mental health and wellness. Anti-stigma messaging after disasters includes education for schools, communities and individuals about common post-disaster mental health responses.

The second recommendation outlined in the report was the application of universal mental health screening by school mental health professionals. This recommendation recognizes that mental health issues and symptoms often start in childhood and screening of these can help in prevention and early intervention efforts. Moreover, universal mental health screening in disasters would aid in the type of services a child receives after a disaster (i.e. general psycho-education, intensive therapeutic services etc.). This recommendation is particularly relevant considering children and adolescents are at a heightened risk for a number of negative outcomes (e.g. substance use, negative school performance, depression, anxiety) after experiencing an acute trauma (Becker-Blease, Turner, & Finkelhor, 2010; Jaycox, Morse, Tanielian, Stein, 2006). The final recommendation related to school mental health provided in the New Freedom Commissions report was suicide prevention, which is also particularly relevant to post-disaster settings because children and adolescents are at an increased risk for attempted suicides after experiencing a disaster (Dube et al., 2001).

Individuals with Disabilities Act. The Individual with Disabilities in Education Act (IDEA) (2004) recognizes the need for behavioral health support services for children through supporting funding for school-based programs including individual counseling with mental health workers, early intervention programs to prevent the progression of behavioral health

problems, and small group curriculum-based activities for children with signs of both externalizing and internalizing symptoms (Individuals with Disabilities Education Improvement Act, 2004). Under the Individual with Disabilities in Education Act, children labeled as "emotionally disturbed" are required to receive "Free and Appropriate Public Education." Free and Appropriate Public Education affirms that all special education, including mental health services that a child needs to stay in school must be provided by public schools (Kataoka, Rowan, & Hoagwood, 2009). The IDEA also requires services such as psychological and counseling services, speech-language pathology, therapeutic recreation, psychiatric services for diagnostic and evaluation purposes, parent counseling and training, school health services, and social work services in schools (Individuals with Disabilities Education Improvement Act, 2004; Kataoka et al., 2009).

From the recommendations in the Presidents New Freedom Commission report in 2003, the Individuals with Disabilities in Education Act reauthorized in 2004 to incorporate amendments such as the inclusion of early intervening services to prevent the progression of future behavioral health disorders (Kataoka, Rowan, & Hoagwood, 2009). The new legislation called the Individuals with Disabilities in Education Improvement Act (IDEIA) allocated funding for research-based, behavioral health and academic funding (Individuals with Disabilities Education Improvement Act, 2004). It promotes evidence-based interventions under a three-tiered framework called Response to Intervention (RtI), which attempts to provide educational services and behavioral health to children on three tiers; universal, selective and indicated. These categories will be explained in the following section.

Response to Intervention framework. Response to Intervention (RtI) is a framework for schools to integrate mental health into the curriculum and identify youth who are in need of

special education, are emotionally disturbed or are in need of mental health services (Gresham, 2005). The premise of Response to Intervention (RtI) is that all children will receive some kind of social skills education, and such programs may include promotion of positive peer relations, emotional regulation, emotional awareness of others, problem solving, and handling interpersonal conflict (January, Casey, & Paulson, 2011; LeCroy, 2008).

The RtI framework consists of three tiers of programming: universal, selective and indicated interventions. Universal interventions are delivered to all students in a school system or district and teach general social skills. Selective programs are generally more intensive and target youth who are considered at a greater risk for mental health issues and are not responding to universal programs. These interventions usually are conducted in small groups and focus on more intensive social skills interventions. Indicated interventions are the most intensive and target youth with the most severe behavioral or mental health issues, and many of these students will receive more intense individualized mental health services (Atkins, Graczyk, Frazier, & Abdul-Adil, 2003; Gresham, 2005). Furthermore, the goal of RtI is to match the strength of the intervention to the severity of the mental health issue (Greenberg et al., 2003; Gresham, 2005; Rudy & Levinson, 2008).

Universal interventions. Universal interventions are provided to all students in the school and are implemented as a preventative approach for future mental health issues. These classroom-based interventions are provided to all students and are built into the general curriculum to enhance social skills support achievement and adjustment and attempt to prevent problem behavior or academic failures (Kelly et al., 2010). Universal programs also act as a screening tool for children with specific mental health needs targeting not only the individual, but the entire climate of the school (Berninger, 2006). The foundation for universal programs is

that students, teachers and administration are all part of building a positive community and promoting behavioral health. Universally implemented programs also provide an avenue for teachers and mental health workers to identify students who might be in need of more individualized mental health services (Greenberg et al., 2003).

Selective interventions. Selective interventions differ from universal programs because they focus on children who are either identified by a teacher or counselor to be at risk for a mental health issues and problem behaviors. Many of these programs consist of small groups and have topics such as building social and coping skills, and teaching self-management strategies (Gresham, 2005; Walker, Ramsay, & Gresham, 2004). Selective programs, like universal programs, teach youth skills such as behavior modification and coping skills and attempt to build resilience. Selective programs, however, are more intensive and targeted than universal programs (Gresham, 2005).

These programs are usually facilitated by social workers or psychologists, and youth are referred into the selective programs by teachers and administrators. Recent studies have found a number of selective programs are garnering a more in-depth evidence-base. Neil & Christensen (2009) conducted an systematic review of selective randomized controlled trials (RCT) and found the evidence-based interventions generally revolved around: (1) assisting childhood anxiety; (2) providing support for youth who experienced a difficult life event; (3) providing psycho-educational groups; and (4) helping children with social skills through social learning models (Neil & Christensen, 2009). Horowitz & Garber (2006) noted that while selective programs may prevent future mental health issues, indicated programs are practical for children who are showing signs of a mental health issue.

Indicated interventions. Indicated interventions are the most intensive and are targeted towards students with more serious behavioral problems and mental health issues (Atkins et al., 2003; A. Cohen, 2006). These programs are often implemented in small groups or individually, and supply services to youth with the goal of preventing progression of future mental health difficulties (i.e. depression, anxiety, alcohol use and dependence) (Atkins et al., 2003). One example of an indicated intervention is a cognitive-behavioral program for youth who were experiencing depression. This curriculum taught cognitive restructuring and problem solving skills to a small group of students between the ages of 14-16 over an eight-week period (Sheffield et al., 2006).

Trauma-focused School-based Interventions

For the purpose of this dissertation all three tiers of school-based of the RtI framework were selected for the review because of the small number of universal published evidence-based interventions available. First, a thorough search of EBP's was conducted in SAMHSA's National Registry of Evidence-based Programs and Practices (NREPP), the National School Mental Health Website (schoolmentalhealth.org) and the National Child Traumatic Stress Network (NCTSN) to obtain a comprehensive list of applicable interventions. In order for an intervention to be identified as evidence-based under NREPP there are certain requirements for scientific methodologies of the intervention's research. First, the intervention must have produced positive results on two or more behavioral outcomes ($p<.05$), must have been evaluated in at least two studies using a randomized control or quasi-experimental design, results must have been published in a peer-reviewed journal, and training and implementation materials must have been developed and ready for the use by the public (NREPP, 2012). The search on the SAMHSA registry yielded five trauma-focused school-based interventions: Cognitive

Behavioral Intervention for Trauma in Schools (CBITS), Trauma Focused Cognitive Behavioral Treatment (TF-CBT), Grief and Trauma Intervention (GTI) for Children, I Feel Better Now! Program and Trauma Focused Coping (Multimodality Trauma Treatment). Each of these interventions was developed specifically for children who exhibit post-trauma symptoms and are classified under the RtI framework as "indicated" interventions.

Evidence-Based Interventions

Cognitive Behavioral Intervention for Trauma in Schools. Cognitive Behavioral Intervention for Trauma in Schools (CBITS) is a 10-session cognitive behavioral intervention that is delivered in schools to children who have experienced trauma. The intervention model uses specific protocol to adapt the program such as obtaining feedback from the social workers on the programs cultural applicability, developing culturally appropriate examples relevant to the population, and establishing protocols on how to handle specific cultural issues (Stein et al., 2002). The intervention has been identified under the Child Traumatic Stress Network as a best practice (National Child Traumatic Stress Network, 2011) is conducted in small groups of youth (5-8 students) and primarily used with youth in grades 6-9 (10-15 years old) and addresses symptoms of anxiety, PTSD and depression related to a traumatic event (Stein et al., 2002). The curriculum focuses on: (1) educating youth about common reactions to stress or trauma, (2) linking thoughts and feelings together to ward off negative thoughts, (3) drawing and writing to expose participants to their trauma memory (4) introducing and practicing social problem solving (Morsette et al., 2009).

Two evaluations of CBITS yielded similar results in reducing PTSD among youth of varying ethnicities (Latino, African American, American Indian, White) and who have experienced acute trauma. The first quasi-experimental evaluation of CBITS was conducted

with 152 students who had been exposed to community violence. Baseline and follow-up scores indicated that the intervention group significantly decreased on their mean score of the Child Depression Inventory and the Child PTSD Symptom Scale. A subsequent evaluation was a follow-up study completed in 2001-02 in the Los Angeles Independent School District at two middle schools. This quasi-experimental study found that after three months of the intervention, students who participated in the early intervention group had significantly lower scores for depression (9.4 vs. 12.7), PTSD (8.9 vs. 15.5), and psychosocial dysfunction (12.5 vs. 16.5) (Stein et al., 2003).

Trauma Focused - Cognitive Behavioral Treatment. Trauma Focused-Cognitive Behavioral Treatment (TF-CBT) is a 12-20 session intervention for children between the ages of 3-18 implemented by a clinician (Dorsey, Briggs, & Woods, 2011). Specific components of the intervention include: psycho-education, parenting skills, relaxation skills, affective modulation skills, cognitive coping skills, and trauma and narrative processing. This cognitive behavioral therapy has 6 published quasi-experimental studies supporting the reduction in post trauma symptoms, depressive symptoms, general and trauma-related behavior problems (Dorsey et al., 2011).

The first quasi-experimental study examined the impact on the intervention with 67 sexually abused preschool children and found that children who participated in the TF-CBT group had significant symptomatic improvement compared to the controls who received an alternative intervention (Cohen & Mannarino, 1996). A subsequent quasi-experimental study was completed with 229 8-14 year old children who were randomly assigned to TF-CBT and an alternative treatment, Child Centered Therapy (CCT). To be included in the study the children had to meet the diagnostic criteria for PTSD and experience some form of traumatic event.

Results indicated that children who participated in the TF-CBT group illustrated significantly reduced PTS symptoms, depression and behavior problems compared to those in the CCT group (Cohen, Deblinger, Mannarino, & Steer, 2004). A follow-up study was also completed with 183 with children between the ages of 8-14 to determine the differential outcomes for children who participated in TF-CBT versus. This study found that children who participated in TF-CBT had significantly fewer symptoms related to PTSD than those in the control condition (Deblinger, Mannarino, Cohen, & Steer, 2006)

TFC: Trauma-Focused Coping in Schools. Trauma-Focused Coping in Schools (TFC) is a 14-session intervention model with 6-8 group members. TFC is a skills-oriented, cognitive-behavioral treatment approach for children exposed to acute traumatic events. Furthermore, the intervention model was specifically developed for schools and includes the following components: psycho-education, anxiety management, anger coping, grief management and narrative processing (La Greca & Silverman, 2009).

One published study has been completed testing the impact TFC has on reducing post-trauma related symptoms with 17 youth between 3rd and 8th grade. The evaluation measured PTSD, anxiety, depression and disruptive behavior at baseline, post-treatment, and at 6-month follow-up. Findings indicated significant improvements were presented at post-treatment and 6-month follow-up for depression ($p < .001$), anxiety ($p < .001$), and anger ($p < .005$) (March, Amaya-Jackson, Murray, & Schulte, 1998).

Grief and Trauma Intervention for Children. Grief and Trauma Intervention for Children is a 10-session intervention model for youth 7-12 years old who have PTS symptoms from experiencing violence or a disaster. The approach utilizes art, drama and play to address topics of anger questioning and guilt and uses narrative techniques to help children process their

emotions (Salloum & Overstreet, 2008). The intervention has been implemented in community-based settings, schools, after school programs and community centers. Two quasi-experimental studies have been completed with GTI and found that there were significant reductions in PTSD from pre to post-test, however, there were no between group differences for children who participated in the control group (Salloum & Overstreet, 2008; Salloum & Overstreet, 2012).

The first study evaluated the intervention with 56 youth between the ages of 7-12 years old who had reported PTS symptoms. The children were randomly assigned to the Grief and Trauma group or to an individual treatment. Results yielded a significant decrease in both the control and experimental group and no significant differences were found between the two groups (Salloum & Overstreet, 2008). A subsequent evaluation examined the differential impact of the Grief and Trauma Intervention (GTI) to a coping skills only group. The study cohort consisted of 70 African American children between the ages of 6-12 years old. Findings indicated children in both groups reported significant improvements in social support and distress related symptoms and were sustained up to 12 months post intervention(Salloum & Overstreet, 2012).

I Feel Better Now! Program. The "I Feel Better Now! Program" is an indicated 10-session intervention for youth ages 6-12 who have trauma related symptoms related to behaviors, social, emotional and psychological functioning (Steele, Kuban, & Raider, 2009). The intervention is comprised of seven group sessions, 1 individual session, and 1 parent-child session. The group sessions are comprised of interactive activities including drawings, representations and visualizations of the traumatic experience. The approach uses cognitive and sensory-based activities to help change cognitive distortions around the trauma and is primarily delivered in school and after school settings (Steele, Kuban, & Raider 2009).

One quasi-experimental study has been published supporting the program. This study was conducted with lower income youth in an urban setting (sample size and demographics were not provided in the article). Results indicated that all youth who participated in IFBN had a reduction in trauma-related symptoms including anxiety, depression, anger, PTS symptoms and disassociation (Raider, 2010).

Evidence-Informed Interventions

Given the small number of universal and selective evidence-based interventions with one or more quasi-experimental designs that were found in the literature search, evidence-informed interventions are also included in this review. According to Sexton (2011), evidence-informed interventions are generally offered in post-disaster school settings because of the dearth of evidence-based programs that are available. An evidence-informed intervention has a basis in research, but has yet to establish a strong empirical basis. Moreover, these interventions are based on well-established validated interventions giving them some supporting research, but have not yet been rigorously tested or evaluated (Sexton et al., 2011). The following evidence-informed interventions are included in this review: Students Exposed to Trauma (SSET), Classroom-Based Intervention (CBI), Skills for Psychological Recovery and Psychological First Aid for Schools (PFA-S).

Students Exposed to Trauma (SSET). Students Exposed to Trauma is an intervention designed by the developers of CBITS to allow teacher or school counselors to implement the program rather than mental health clinicians. SSET is a 10-session intervention that was designed to help alleviate distress from exposure to a traumatic event (Jaycox et al., 2009). Characteristics of the intervention include skill-building techniques which aim to change negative thought and promote healthy behaviors (Jaycox et al., 2009). One Pilot Study has been

done in Los Angeles and found students showed small reductions in trauma symptoms, students and parents reported good-to-high satisfaction with the program and teachers reported small improvements in student behavior, but parents did not (Jaycox et al., 2009).

Skills for Psychological Recovery. Skills for Psychological Recovery (SPR) is a six session intervention designed to help children in the months and years after disasters and terrorism. SPR was created to help those who have experience a disaster learn skills to reduce ongoing distress and successfully cope with post-disaster stressors (Berkowitz et al., 2010). The objectives of SPR are to: (1) safeguard the mental health of participants, (2) involve disaster survivors in recognizing and addressing their current needs, (3) teach skills to promote recovery, and (4) prevent maladaptive behaviors (Berkowitz et al., 2010).

These objectives are accomplished through a series of steps including: (1) identifying concerns around the disaster, (2) enhancing problem-solving skills, (3) promoting positive thinking, (4) rebuilding affirmative social connections, and (5) managing troubling reactions around the disaster (Berkowitz et al., 2010).

Psychological First Aid for Schools. Psychological First Aid for Schools (PFA-S) is an intervention model designed to assist, families, school personnel and students immediately after an emergency (Vernberg et al., 2008). This evidence-informed intervention is designed to minimize the initial distress from an emergency and to cultivate short- and long-term coping and functioning. The principles of PFA-S include the following standards: (1) Supports risk and resilience research following a trauma, (2) Practical and applicable in school settings, (3) developmentally appropriate for various age groups, and (4) Is delivered in a flexible and culturally-informed manner (Taylor, Brymer, & Reyes, 2011). Moreover, PFA-S accounts for the broad range of early reactions (e.g., cognitive, physical, psychological, spiritual, behavioral)

children and adults may encounter following an emergency. PFA-S also attempts to moderate the development of mental health problems and recovery by referring individuals who may need more intensive psychological services to appropriate mental health professionals (Vernberg et al., 2008).

Classroom-Based Intervention (CBI). Classroom-Based Intervention (CBI) is a 15-session intervention model designed to be implemented in displacement camps, shelters and schools to help youth process and cope with a traumatic event (Jordans et al., 2010). One study has been completed on CBI in Indonesia with children affected by political violence. This study indicated that the intervention reduced posttraumatic stress symptoms and helped maintain hope, but did not reduce traumatic-stress related symptoms, depressive symptoms, anxiety symptoms, or functional impairment (Jordans et al., 2010).

CHAPTER III

Journey of Hope Background and Theoretical Relevance

Journey of Hope Intervention

The JoH intervention model was originally in 2007 after Hurricane Katrina in response to the specific emotional needs that children were exhibiting in the public schools. Many children were exhibiting common post-disaster reactions including externalizing symptoms such as acting out and fighting and internalizing symptoms such as anxiety and depression. The premise of the intervention model is: "to help children cope, build on their natural resiliency and strengthen their network of social support with friends and caring others" (Save the Children, 2009).

The JoH is a set of three developmentally appropriate interventions that offers children between the ages of 5-13 the opportunity to better normalize their emotions and develop positive coping strategies through cooperative play, creative arts and literacy. This intervention model can be implemented under the RtI framework as universal (with all children in a school) or selective (with children who have experienced a trauma). The JoH intervention is a strengths-based model incorporating social cognitive theory through teaching children social and emotional skill building, problem solving and positive coping so they may have the capacity to overcome current and future traumas (Bandura, 1998). Additionally, the Journey of Hope intervention model enhances protective factors for youth such as promoting healthy peer relationships, a positive school environment, and stable relationships with adults.

Following are specific learning objectives of the Journey of Hope:

1. To support children in understanding and normalizing emotions associated with trauma or difficult circumstances;

2. To support children in developing positive coping strategies to deal with these emotions;

3. To build on the innate strengths of children, their families, schools, and communities to further develop positive coping mechanisms; and

4. To instill a sense of hope, empowering children to feel more in control over stressors (Journey of Hope Manual, 2009).

Intervention Model Design

The JoH intervention model uses a child-centered, strengths-based approach to provide children and adolescents with positive resources to understand and cope with emotions caused by traumatic situations. The intervention model is organized into 8 hour-long sessions that can be implemented within a school term or in a summer camp. The core tenets of the JoH are to help youth: 1) understand and normalize key emotions; 2) identify triggers and stressors; and 3) develop positive coping strategies to deal with these emotions (Journey of Hope Manual, 2009).

Each session of the Journey of Hope intervention model follows a similar routine to create a safe place where participants feel comfortable participating in activities and sharing their feelings to help normalize emotions. Moreover, the intervention model utilizes developmentally appropriate learning strategies, including:

- Cooperative games to enhance social skills, encourage teamwork, and build awareness of stressors in a non-competitive manner;
- Books and dialogue to enhance emotional intelligence and reinforce messages to help normalize emotions after a trauma; and
- Music, art, journaling and dance and/or movement to give children an opportunity process their emotions through an alternative outlet of expression.

Table 1: Journey of Hope sessions

Session	Topic:
1	Introduction: Creating Safety
2	Fear: Understanding and Coping
3	Anxiety: Understanding and Coping
4	Sadness: Understanding and Coping
5	Anger and Aggression: Understanding and Coping
6	Bullying: Understanding and Coping
7	Self-Esteem and Taking Action: I Believe I can
8	Me, My Emotions and My Community

The core content of the Journey of Hope includes:

Session 1: Creating Safety

Overview: Through cooperative parachute play, art and discussion, this session helps children understand the program and creates a safe place to comprehend safety and identify safe places and people, explore emotions and learn about positive coping skills.

Learning Objectives: To understand the objectives and structure of the JoH curriculum, (2) to establish new relationships, (3) to develop individual strategies to recognize emotions and create safe spaces.

Activities: (1) Introduction, (2) establishing group guidelines, (3) introduction of parachute, (4) creating my safety folder, (5) closing circle.

Session 2: Fear: Understanding and Coping

Overview: This session helps children understand what fear is, why everyone feels fear, and facilitates the development of positive coping skills

Learning Objectives: (1) To understand and normalize fear and emphasize that all people are scared sometimes and (2) To engage children in discovering how they currently react to fear in their lives and to explore other coping mechanisms for handling fear.

Activities: (1) Check-in and introduction, (2) Activity: trust lift, (3) literacy-book on understanding fear, (4) Art activity-drawing about what makes you feel better, (5) closing circle.

Session 3: Anxiety: Understanding and Coping

Overview: Through cooperative parachute play, literacy, art and discussion this session helps children understand what anxiety is, why everyone feels anxiety sometimes, and facilitates the development of positive coping skills.

Learning Objectives: (1) To understand what anxiety is and that worry is a normal feeling and (2) To engage children in discovering what they are currently doing to cope with anxiety and to explore other healthy means of coping with anxiety.

Activities: (1) Check-in and introduction, (2) Cooperative game: trust circle, (3) Literacy: creating a story about worry, (4) Art activity: drawing a picture about how to cope with worry, (5) Closing circle.

Session 4: Sadness: Understanding and Coping

Overview: Through cooperative parachute play, literacy, art and discussion, this session helps children understand what sadness is, why everyone feels sadness and facilitates the development of positive coping skills.

Learning objectives: (1) To understand what sadness is and emphasize that all people feel sad sometimes and (2) To engage children in discovering how they are currently processing sadness and to explore other healthy ways to cope with sadness.

Activities: (1) Check-in and introduction, (2) Cooperative Game: the sad parachute, (3) Literacy: book on coping with sadness, (4) Literacy/Art: Coping with sadness sentence starters, (5) Closing circle.

Session 5: Anger and Aggression: Understanding and Coping

Overview: Through cooperative parachute play, art and discussion, this session helps children understand what anger and aggression are, why people feel angry and act aggressively sometimes, and facilitates the development of about positive coping skills.

Learning objectives: (1) To understand what anger and aggression are and why all people get angry or act aggressively sometimes and (2) To engage children in discovering their current reactions to anger and aggression and exploring other positive ways to cope with anger.

Activities: (1) Check-in and introduction, (2) Cooperative game: volcano, (3) Literacy: creating a story on anger and coping, (4) Art activity: children draw or write things that make them angry and how to positively cope (5) Closing circle.

Session 6: Bullying: Understanding and Coping

Overview: Through cooperative parachute play, art and discussion this session helps the children understand bullying, why people bully and facilitates the development of positive coping strategies.

Learning Objectives: (1) To understand what bullying is and why some people bully and (2) To engage children in discovering what they are currently doing to stop bullying and what more they can do.

Activities: (1) Check-in and introduction, (2) Cooperative game: Parachute disc flip, (3) Literacy: Book on coping with bullies, (4) Art/Literacy: draw or write ways to be a better friend (5) Closing activity.

Session 7: Self-esteem and taking action: **I Believe I Can**

Overview: Through cooperative parachute play, literacy, art and discussion this session helps the children understand what self-esteem is and why some people feel better about themselves than others, looking at positive strategies to increase self-worth and a sense of control.

Learning Objectives: (1) To understand what self-esteem is and understand how internal and external factors influence how we feel about ourselves, (2) To help children identify their own strengths and abilities (3) To engage children in discovering what they currently do to manage their emotions and what actions they can take to cope with difficult situations (self-efficacy).

Activities: (1) Check-in and introduction, (2) Cooperative game: Parachute pick up, (3) Literacy: poem or book on self-esteem, (4) Cooperative Game: What you like about me (5) Closing circle.

Session 8: Me, my emotions and my community

Overview: This last session uses cooperative parachute play, art, and discussion to tie all of the emotions together. It celebrates what the children have learned, emphasizes what each child can do to normalize and cope with difficult emotions in their school and community and reviews their support networks.

Learning Objectives: (1) To celebrate what the children have learned, (2) To reinforce the fact that the children are part of a school, family and community and (3) To highlight the supports and allies that can reinforce what has been learned and provide support when dealing with difficult emotions and situations.

Activities: (1) Check-in and introduction, (2) Cooperative game: Farewell parachute (3) Cooperative Game: Children pick the game they liked best (4) Literacy Activity: Wheel of change and (5) Celebration and (6) Closing circle (Journey of Hope Manual, 2009).

Theoretical Relevance of the Journey of Hope intervention

The theoretical framework of the Journey of Hope utilizes social cognitive theory (Bandura, 1977) stress and coping theory (Lazarus & Folkman, 1984), and the risk and resilience framework (Arthur et al., 2002; Masten & Obradovic, 2006; Stevenson & Zimmerman, 2005). The following section will describe core tenets of these theories including their association with the Journey of Hope.

Social Cognitive Theory

Social cognitive theory (SCT) (previously social learning theory) is derived from Bandura (1977) and emphasizes that human behavior can be explained through a constant reciprocal interaction between the environment and personal elements. The fundamental premise of SCT is that individual roles are created by symbolic, vicarious and self-regulatory processes in psychological processing (Bandura, 1977).

Theoretical principles. Vicarious learning, a basic tenet of SCT posits that people learn from social situations by observing and learning how others achieve success (Payne, 2005). For example, Bandura (1977) identified how child's sense of self-efficacy regarding a situation often stems from individual, *vicarious* encounters with a social situation.

Reciprocal determinism, another central concept of SCT, is the interaction between people and their environment (Bandura, 1998; Glanz, Rimer, & Viswanath, 2008). SCT suggests that human behavior is a vigorous interaction between personal, environmental and behavioral influences. While SCT emphasizes the importance of the environment on human behavior, it also acknowledges that people have the capacity to alter their environments based on their individual aspirations (Glanz et al., 2008). Gosch (2008) notes that according to social cognitive theory, children may learn nervous responses through observing behavior being modeled by

significant people in their life, but it is also the how they individually process the information which may determine their future responses.

Self-efficacy. Self-efficacy is also significant component of individual-level behaviors in SCT. Bandura (1998) describes self-efficacy as an individual's belief about their own capabilities to perform a specific task. Moreover, Bandura posits that when people believe they can deal with prospective stressors they are less distressed (Bandura, 1977; Bandura, 1998). Further, the more control an individual feels over threatening situations can actually enhance a person's physical and mental health (Wiedenfeld, et al., 1990).

Observational learning. Observational learning focuses on how people mold their behaviors based on influences from the family, peers, and/or the media. Bandura (1977) suggests there are four components of observational learning that influence behavior including: (1) attention, (2) retention, (3) production, and (4) motivation. Each of these components depends on certain capacities of the individual. The first component, attention, is directly related to the level the child pays attention to the modeled behavior (Bandura, 1969). The children then must retain the modeled information/ behavior. Retention depends on the intellectual capacity of the individual and involves transforming the modeled information into memory storage (Bandura, 1969). Production (performance of model behavior) is the ability to translate the modeled event into overt behaviors. Moreover, production depends on perceived skills of the individual including self-efficacy, communication or the ability to learn to perform the behavior (Bandura, 1969). Finally, motivation alludes to the desire for the individual to exhibit the behavior they have acquired through observational learning. Motivation depends on the individuals perception of expected outcomes including the costs and/or benefits of the observed

behavior (Glanz et al., 2008). Furthermore, Bandura and Wakers (1963) posited that nearly all learning occurs through directly observing modeled behaviors.

The JoH utilizes various principles from social cognitive theory to enhance children's self-efficacy and build coping mechanisms. Vicarious and reciprocal determinism techniques are implemented to help children build self-efficacy through modeling and teaching positive social interactions with their peers. For example each session discusses specific emotions the children may encounter such as fear, anxiety, anger and aggression. The intervention interactively teaches the youth how to identify their feelings through discussion, art and cooperative games to help them process positive ways they can address these emotions. The children are then able to learn their own positive coping techniques and learn other coping mechanisms through other group members. The JoH attempts to build self-efficacy in youth by using a strengths-based approach to helping children identify and process their emotions. Furthermore, the intervention model attempts to help youth normalize emotions they may encounter after a disaster and identify positive internal and external supports to help them process their feelings.

The intervention also attempts to institute each component of observational learning to help the children learn about, understand and process healthy peer interaction and coping skills. First, attention is garnered by using small groups of children in which each child is an active participant in the learning process. Small groups are so that each child has the ability to interactively participate in the group. Various learning techniques are then initiated to help the children retain the information. For example, group discussion is for those who are auditory learners, cooperative games are for the individuals who learn more through hands on activities and art and journaling are implemented for those who visually comprehend material. Production is then implemented in each of the sessions to help the children internalize, communicate and

perform the behavior. For example, the session focusing on anger and aggression acknowledges that anger and aggression are normal emotions, but there are healthy and unhealthy ways to exhibit them. The children are then prompted to have a discussion about positive and negative ways to exhibit anger, followed by a cooperative game which illustrates healthy ways to exhibit anger. Finally the children participate in a visual activity in which they draw or write how they can positively cope with anger and aggression.

Stress and Coping Theory

Stress and Coping theory emerged from an exploration on the role of personal control in stress and coping processes. Developed by Lazarus and colleagues, the theory of stress and coping suggests a multi-dimensional process exists when an individual is coping with a stressful situation(s) (Folkman, 1984; Folkman & Lazarus, 1980; Lazarus & Folkman, 1984). This complex process includes: (1) an individual's experience of an adverse situation and how they associate it to their personal meaning of the event, and (2) the cognitive and behavioral attempts to control, lessen or endure strains that are formed from the stressful situation.

Theoretical principals. Stress has been defined as an association between the person and their environment that is considered by the individual as taxing their assets and threatening their well-being (Folkman, 1984; Pincus & Friedman, 2004; Folkman & Lazarus, 1980). Lengua & Long (2002) operationalize childhood stress into major life events (death of a family member) or moderately stressful occurrences (moving, changing schools). In reaction to these life events, a person appraises the situation through a cognitive process which uses the individual's belief system and interaction within their environment. Following is an overview of the processes that an individual experiences when appraising a potentially stressful experience.

Cognitive appraisal. Cognitive appraisal is a broad concept that is used to define the manner in which people assess the significance of a particular incident in relation to its personal meaning (Park & Folkman, 1997). The assessment of this personal meaning is swayed by the connection of the event to the individual's goals, beliefs and commitments (Folkman, 1984; Lazarus & Folkman, 1984; Park & Folkman, 1997). The concept of cognitive appraisal is particularly relevant to stress and coping theory because it helps explain why people cope differently to similar stressful events (Park & Folkman, 1997). For example, cognitive appraisal helps explain why one child may experience greater distress than another in a similar situation (i.e. moving, starting a new school etc.). This appraised meaning is created through two processes primary appraisal, in which a person assesses the meaning of a situation in relation to their well-being, and secondary appraisal, referring to the individual's evaluation of their ability to cope with the event (Park & Folkman, 1997).

Primary appraisal. Primary appraisal alludes to an individual's belief about the control they have over a certain situation, and the level of control they think they have on the outcome of an event. Moreover, primary appraisal of a situation is largely shaped by the person's internal beliefs or pre-existing ideas about reality. (Lazarus & Folkman, 1984; Park & Folkman, 1997). This interaction is influenced by an individual's underlying assumptions or beliefs about their environment or their world (Folkman, 1984; Pincus & Friedman, 2004). Park and Folkman (1997) postulate the more serious a person believes the situation is, the more important it may be for the individual to believe they have control over the encounter. On the contrary, a situation where the individual believes little is at stake may reduce the level of control the person may feel they need over the outcome, which can in-turn reduce their stress levels. Furthermore, the

greater the individual appraises the threat of a situation, the more important controllability is (Folkman, 1984; Lazarus & Folkman, 1984; Park & Folkman, 1997).

Secondary appraisal. Secondary appraisal, another component of cognitive appraisal addresses the individual's belief about their ability to cope with a potentially stressful event. Moreover, secondary appraisal is the process of assessing individual coping resources and identifying what they can do in the situation. For example, person may assess how they cope with a particular situation based on their physical (health, energy), psychological (self-esteem, self-efficacy), social (external support systems such as family, friends, community) and material (money and tangible resources) assets in regards to the situation (Pincus & Friedman, 2004; Lazarus & Folkman, 1984).

Primary and secondary appraisals have been found to directly influence a child's ability to cope with or overcome a stressful situation. Research has indicated that children who appraise situations negatively tend to have more adjustment problems and when a child appraises a situation as threatening (i.e. parental divorce) they are more prone to anxiety depression and conduct problems. For example, Rotenberg, Kim, and Herman-Stahl (1998) found that children who use self-blame when appraising a stressful life event tend to have more sadness and low-level coping responses.

Coping. Coping, as defined by Folkman & Lazarus (1980) is the cognitive and behavioral attempts to control, lessen or endure internal and/or external strains that are formed from the stressful situation (Folkman & Lazarus, 1980). Two criteria have been identified as functions of coping; emotion-focused and problem-focused. Problem-focused (primary coping) is considered the management of the problem which is causing distress. This strategy is used to reduce a person's stress level through direct action, problem-solving or decision making

processes. School-based interventions often use problem-solving techniques to generate solutions to interpersonal problems of youth (i.e. staying away from a bully to avoid being picked on or talking through an issue with a peer rather than fighting) (Brotman-Band 1988; Pincus & Friedman, 2004; Smith & Carlson, 1997).

Emotion-focused coping (passive-secondary) is based on the internal regulation of ones emotions or distress suggesting that a person can enhance their sense of control over a stressful event(s) by changing the meaning. Moreover, successful emotion focused coping is equated to the ability of a person to accommodate oneself to uncontrollable situations (Pincus & Friedman, 2004). This coping strategy is often used in school-based models to help the child identify ways to think different about a stressful situation so they may calm themselves (i.e. buffering distress by talking about a problem or reducing distress by thinking a given situation isn't so bad) (Brotman-Band 1988; Pincus & Friedman, 2004).

The JoH builds both problem and emotion-focused coping techniques through identifying positive ways to cope and building internal and external coping resources. Problem-focused coping is implemented by helping children identify positive ways they cope with difficult circumstances both in school and at home. Each session teaches specific techniques to positively cope with difficult situations. More specifically, the children are encouraged to discuss each topic and strategize ways they can manage a situation which may be appraised as difficult. For example, the session that focuses on dealing with bullies presents circumstances where bullying may occur in a school and employs interactive where the children can devise healthy ways to address the situation. The JoH institutes emotion focus coping by normalizing difficult emotions children may experience after a disaster. The intervention model attempts to help youth understand, that most people experience emotions such as fear, anger, sadness or anxiety and

helps them identify both internal and external resources to cope with these emotions. For example, the session on fear discusses situations in which a child may feel scared and then works with them to identify people, places and things which can help them feel better and helps them re-frame the situation so they may feel safe.

Stress and Coping theory is further integrated into the JoH intervention model by providing a safe setting where youth can process and assign meaning to a difficult situation and help establish healthy cognitions related to the event. This theoretical approach is particularly relevant to the JoH intervention model because of its focus on building healthy coping skills which may help youth overcome immediate and future adverse events. Rutter (1994) noted that youth's capacity to deal with common everyday stressors is significantly associated with psychosocial adjustment. Studies have shown that negative life events can be associated with long-term physiological, social and psychological dysfunction such as suicide attempts, deviant behavior, health complaints and depression and interventions to help build positive coping skills may mitigate these adverse long-term consequences (Berkowitz, Stover, & Marans, 2011; Boekaerts, 1996; Pina et al., 2008). Moreover, the intervention model attempts to help youth both understand and process the trauma through establish meaning to the event without using self-blame or other negative coping mechanisms.

Table 2: Stress and coping concepts

Stress Concepts	
Cognitive Appraisal	How people assess the significance of an event to their personal meaning.
Primary Appraisal	View person has about a stressful situation which is correlated with their person-environment interaction.
Secondary Appraisal	Belief about how to deal with the stress from material, psychological, social and physical resources.
Acute Stress	Stress related to specific life or uncommon events
Chronic Stress	Stress related to personal conditions or environmental disadvantage.
Coping Concepts	
Problem Focused Coping	Regulation of the distressed person-environment relationship through direct action, problem-solving or decision making processes.
Emotion Focused Coping	Regulation of emotions by enhancing sense of control over a stressful event(s) by changing the meaning.

Source: Berkowitz, Stover, & Marans, 2011; Lazarus & Folkman 1984

Risk and Resilience Framework

A significant component of the JoH intervention model includes building protective factors to enhance youth's mental health after a disaster. According to Masten & Obradovic (2007), experiencing both acute and chronic trauma can be a causal factor leading to immediate and longer-term mental health issues. Researchers have found, however, that many children who do face adversity can become successful in life when protective factors exist (Masten & Obradovic, 2006; Stevenson & Zimmerman, 2005; Walsh, 2007; Williams et al., 2008). Following is a description of the risk and resilience framework and a description of how the JoH attempts to build protective factors to reduce future negative psychological difficulties.

Risk and resilience. Resilience, as described by Masten & Obradovic (2006) is when a person has positive outcomes even though they have encountered serious threats to development or adaptation. Risk on the other hand is identified as an adverse event that can be considered stressful, and may hamper normal functioning (Masten & Obradovic, 2006; Stevenson & Zimmerman, 2005). According to Masten & Obradovic (2006) the construct of resilience can be further defined as the process of overcoming adverse consequences from exposure to risk, avoiding harmful paths related to risk, and effectively coping with traumatic experiences (Masten & Obradovic, 2006; Stevenson & Zimmerman, 2005).

The Risk and Resilience framework focuses both on risk exposure (i.e. experiencing a disaster, war, violence, abuse) and examines what makes a child able to positively cope with the negative event(s). Kinard (1998) suggests that many children facing risky situations may be considered resilient if they are exhibiting normal functioning in regards to social, behavioral, and/or cognitive functioning. Researchers have also posited that resilience is not solely an innate characteristic of an individual, but can be established through internal, environmental and familial influences (Waller, 2001; Arthur, Hawkins, Pollard, Catalano & Baglioni, 2002).

Risk and protective factors. Risk Factors are internal and external elements that are associated with an increased probability of poor emotional, behavioral or physical outcomes (Gewirtz & Edleson, 2007). Risk factors for children can include both direct and indirect environmental conditions and many researchers believe chronic risk can have more adverse long-term effects than isolated, acute events (Garmezy & Masten, 1994; Gerwirtz & Edleson, 2007). Examples of risk factors associated with a disaster can include high levels of exposure and amount of loss, and subjective appraisal of life threat (Smith & Carlson, 1997; Udwin, Boyle, Yule, Bolton, & O'Ryan, 2003). Further, Winje and Ulvik (1998) posit that risk of developing

psychological symptoms after a disaster can be separated into three general categories: factors associated with the individual child, factors associated with the trauma (i.e. high vs. low exposure), and post-disaster factors (i.e. high vs. low levels of family and community support).

Protective factors have been defined by Kirby and Fraser (1997) as factors that assist children and adolescents in guarding against or avoiding risk and can help a child overcome adversity in difficult or traumatic situations. These factors exist both within the individual (i.e. psychological well-being and physical health) and externally (parental support, positive peer relationships, adult mentoring) (Masten & Obradovic, 2006; Stevenson & Zimmerman, 2005). The JoH intervention model focuses on helping a child address and overcome an acute risk factor such as a natural disaster through building external protective factors such as healthy peer and adult relationships. Components of the JoH intervention model also work with children to build internal protective factors including emotion regulation skills through positively managing emotions such as anger and aggression. Moreover, the JoH works with children to help process and normalize common emotions associated with the disaster to help them minimize on-going perceive threat they may feel associated with the disaster. For example, the session focusing on safety helps the children identify safe people, places and things which can help protect them during difficult or adverse events.

Components of the Three Article Dissertation

This dissertation consists of three publishable quality articles that provide a description and theoretical basis for the Journey of Hope intervention model and assess the impact of the Journey of Hope on youth who have experienced a natural disaster in Tuscaloosa, Alabama. This three article dissertation presents the JoH intervention model through: (1) a conceptual article about the Journey of Hope intervention model, (2) A quasi-experimental study examining the impact of the Journey of Hope intervention model on building coping skills, and (3) A qualitative case study exploring the impact of the Journey of Hope. These articles inform one and other providing a holistic view of the Journey of Hope intervention model.

The first article provides an introduction of the Journey of Hope and a detailed description of the implementation of group work in the intervention illustrated through vignettes from New Orleans. The quasi-experimental paper presents outcomes from a quantitative perspective. Finally, the qualitative case-study article provides a deeper understanding of specific themes that emerged which will help mold future research on the intervention. These articles will not only introduce the intervention, but will begin the process of establishing an evidence-base for the JoH which will provide a rational for future research support of the program. The following chapters present the three articles followed by a discussion on the implications, limitations and relevance to direct practice and policy.

CHAPTER IV

The Journey of Hope: A Group Work Intervention for Children Who Have Experienced a Collective Trauma

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Background

Since 2010, over 700 natural disasters have impacted more than 450 million people worldwide including over 66.5 million children each year (International Monetary Fund, 2012). Exposure to these traumatic events impacts a child's social, emotional and physical well-being. The risk factors appearing immediately, weeks or months later, are life-changing for children and their communities (Garrett et al., 2007; Kataoka et al., 2009; Walsh, 2007). Improving children's capacity to cope with and overcome these traumatic events necessitates new approaches and more broad-based interventions particularly given the recent trends and predictions that natural disasters will continue to increase (Gall, Borden, Emrich, & Cutter, 2011).

The following article presents an intervention model called the Journey of Hope (JoH) aimed at helping children address and normalize emotions commonly experienced after a traumatic event. The intervention model, designed in collaboration with children and school counselors, uses group work. Rather than focusing solely on the trauma, the 8 sessions teach coping skills through discussion, interactive games, journaling and art-based activities. This group work approach incorporates experiential and reflective learning and group problem solving to help children process, understand and make sense of common emotions associated with traumatic events such as natural disasters (Malekoff, 2008; Salloum, Garside, Irwin, Anderson, & Francois, 2009). To introduce the model, we present the theoretical underpinnings of the intervention model, including the relevance of group work in helping children and early

adolescents process difficult life events. To illustrate the role of group work in the JoH, we analyze group dialogue from sessions carried out in New Orleans public schools post hurricane Katrina.

School Interventions for Children Impacted by Collective Trauma

The psychosocial impact on children affected by a traumatic event a such as a natural disaster can be debilitating in multiple ways, contributing to emotional strains and affecting a child's physical and emotional growth (LaGreca & Prinstein, 2002; Silverman et al., 2008). The emotional strain may be exhibited through re-experiencing the event, hyper-arousal, externalizing symptoms or internalizing symptoms (Jaycox, Morse, Tanielian, Stein, 2006; Wang et al., 2006). Research has shown that within a year after the traumatic event, children are often at a heightened risk for anxiety, nervousness, anger, depression, and acting out at school and/or at home (Jaycox, Morse, Tanielian, Stein, 2006; Kataoka et al., 2003; Liu et al., 2011). Longer-term issues may include an increased risk for substance use, anxiety related disorders, depression, and suicide attempts (Dube et al., 2001; Jaycox, Morse, Tanielian, Stein, 2006; McFarlane & Van Hooff, 2009; Putnam, 2006; Strauss, Dapp, Anders, von Renteln-Kruse, & Schmidt, 2011). Given the negative psychological sequelae a traumatic event can have on young people, broadly accessible interventions that address their mental health needs are needed (Peek, 2008).

School-based mental health interventions are particularly appropriate given the access to young people (Weist et al., 2007). Not surprisingly, the majority of current services in mental health are delivered via schools (Burns et al., 1995; Weist et al., 2007). While schools may be an ideal place to offer mental health interventions, less clear is the most effective or relevant

approach to providing broad-based interventions to young people who have experienced a collective trauma such as a natural disaster.

Cognitive behavioral interventions have, to date, been considered the gold standard of post-trauma school-based mental health interventions. Silverman and colleagues (2008) examined 21 studies on evidence-based psychosocial interventions for children and adolescents who exhibited psychological symptoms related to traumatic events and found that the majority were treatment oriented and cognitive-behavioral focused. Cognitive Behavioral Intervention for Trauma in Schools (CBITS), Trauma Focused Cognitive Behavioral Treatment (TF-CBT), Trauma-Focused Coping in Schools (TFC) and Grief and Trauma Intervention for Children are all based on evidence-based cognitive behavioral activities that focus on changing cognitive distortions around the traumas based on one-on-one and small group interventions (Association", 2012). These treatment oriented programs are designed for young people who exhibit signs or have been diagnosed with post-traumatic stress (Silverman et al., 2008). This focus is limiting, however, because prevalence of typical post-traumatic stress symptoms for those who have experienced a disaster vary greatly (Evans & Oehler-Stinnett, 2006; Neria, Nandi, & Galea, 2008).

Common adverse reactions to a traumatic event are heightened anxiety, depressive symptomology, grief and/or externalizing behaviors, such as fighting at school, and an increase in bullying behaviors (Evans & Oehler-Stinnett, 2006). Research has shown that while intensive therapeutic programs benefit children and young people with PTSD symptoms, interventions that focus on building capacities for coping can be effective, and widely delivered can help prevent future mental health issues associated with the trauma (Berger, Horenczyk, & Gelkopf, 2007; Cohen et al., 2009; Evans & Oehler-Stinnett, 2006). Children with healthy coping responses

have a greater capacity to respond and overcome a traumatic event (Teicher, Andersen, Polcari, Anderson, & Navalta, 2002), and it has been posited that social support and healthy coping strategies can be predictive of mental health symptoms in the months and years after a disaster (Evans & Oehler-Stinnett, 2006). Peek (2008) noted that post-trauma interventions that focus on building capacity and empowering young people can enhance coping skills to foster recovery. Other studies have shown that children who participated in activities that helped them process the disaster through writing, drawing or communicating with peers and supportive adults fared better in recovery (Fothergill & Peek 2006; Raftree et al. 2002).

In this paper, we present an intervention, the Journey of Hope (JoH), designed to support social and psychological well-being for all children after a traumatic experience (Duncan, 2004; Lauten & Lietz, 2008). Such an approach focuses not solely on the trauma itself, but on common reactions to coping with life events during the recovery phase, to help children collectively process the emotions they may experience. The intervention takes an ecological approach to prevention and treatment in post-disaster in school-based settings. It is based on the premise that strengthening coping skills in the context of group work can enhance preventive and protective factors and reduce negative psychological sequelae associated with situations of collective trauma.

The Journey of Hope

Background

The JoH was initially developed in response to a gang fight in a New Orleans middle school after a crisis counselor reached out to Save the Children, an international organization involved in hurricane Katrina recovery efforts. The fights were associated with the difficulties the youth experienced as a result of the hurricane including separation from family, displacement

to new schools and communities, and adjustment to the context of post-Katrina New Orleans which resulted in problem behavior and conflict amongst young people. The youth involved in the conflict were also among those who were most adversely impacted by the storm, coming from impoverished neighborhoods many had been previously exposed to community violence which put them at a higher risk for a variety of chronic traumas, including community violence, abuse, neglect (Jones, 2007; Peek, 2008).

As part of the team of social workers, the first author participated in the initial discussion groups where young people identified social and emotional needs, including fear, anger and anxiety. In the absence of an available program that addressed the range of mental health issues experienced by young people during the recovery period, the Journey of Hope was created.

Since the development and piloting of the JoH training manuals in the New Orleans public schools, the program has been delivered by Save the Children in a number of post-disaster settings including after the tornados in Tuscaloosa, Alabama and Moore, Oklahoma, post hurricane Sandy in New York and New Jersey, and following an earthquake in Christchurch, New Zealand.

The Intervention Model

The JoH has evolved into a set of three programs that supports children between the ages of 5-13 (kindergarten to grade 8) in normalizing emotions they may experience after a disaster and develop positive coping strategies through cooperative play, creative arts and literacy. The intervention model is organized into 8 one-hour long sessions, with groups of 8-10 children that are generally implemented two times a week over a month within a school term or in a summer camp. The group leaders work with teachers and social workers to compose a diverse group of 8-10 students ranging from those who may be experiencing more difficulties with those who are

coping well. If a child is exhibiting extreme externalizing behavior, he or she may be unable to function in a JoH group, but would require a more one-on-one therapeutic program.

The core tenets of the program are to help youth: (1) understand and normalize key emotions; (2) identify triggers and stressors; and (3) develop positive coping strategies to deal with these emotions (Save the Children, 2009). The model is founded on a strengths-based approach, and uses developmentally appropriate strategies along with group practice techniques.

Strengths-based approach. The strengths-based approach of the intervention involves providing children with positive resources to understand and cope with emotions caused by traumatic situations. According to Saleeby (1996), the strengths-based model in social work focuses on the "capacities, talents, competencies, possibilities, visions, values and hopes" (p. 296) rather than their disorders or pathologies. The JoH model focuses on participant's insight and mutual aid, encouraging members to support each other. Group workers also emphasize that participants have the ability to problem solve and have valuable insights in their own well-being providing for a child-centered practice (Boyden & Mann, 2005).

The JoH supports youth by normalizing the emotions they experience after a trauma through building positive coping strategies and helping them recognize internal and external resources that may support them. The intervention model helps a child address and overcome a traumatic event through building external protective factors such as: promoting positive relationships with caring adults and promoting healthy peer relationships (Masten & Obradovic, 2006; Stevenson & Zimmerman, 2005). Components of the JoH also work with children to build internal protective factors including: teaching self-regulation skills and promoting self-efficacy. By providing a supportive environment for the children to share their experiences, the group workers also help them build their problem solving skills to enhance future coping skills.

Developmentally appropriate strategies. The developmental stages of the participants are also reflected in the intervention model. Considering Piaget's stages of development and our own experience working with the children, specific activities and discussions have been tailored so the youth are able to comprehend the concepts delivered in the intervention. The Junior JoH is for children between the ages of 5-7, the Elementary JoH targets those between 8-10 years old, and the Adolescent JoH for early adolescents between the ages of 11-13. Following is a description of how each manual addresses the developmental stages of the participants.

The Junior JoH utilizes learning strategies appropriate for children in the pre-operational phase of development, who are still in the process of developing logical thinking and learning words and concepts (Opper & Ginsburg, 1987). The use of books, art activities and play helps the children comprehend the concepts.

The Elementary JoH, focusing on older children, incorporates Piaget's concrete operational phase. Topics in the Elementary JoH mirror those of the Junior manual, however, in this phase of development, youth begin thinking logically about events, therefore, many of the activities use inductive logic techniques to help the youth tie a specific experience to a more general concept (Opper & Ginsburg, 1987). For example, the use of books and stories are presented to provide participants' information on emotions such as anger, fear or sadness, and how to positively cope with their feelings. The group workers then initiate a discussion about the emotion presented in the book and how it relates to the participants.

The Adolescent JoH, designed for early adolescents addresses similar topics as the other two, but recognizes that participants have a more developed capacity to think about abstract concepts and use of deductive logic (Opper & Ginsburg, 1987). The intervention focuses more intently on developing young people's ability to understand their emotions and develop positive

coping strategies. Activities are integrated into the curriculum which prompts participants to think about a problem that may occur and devise healthy solutions. For example, in the session on bullying, the youth are asked to role play a scenario that illustrates bullying behaviors and to act out positive ways they may address the situation.

Group Work Techniques

Research has shown that children who work in cooperative and collaborative group environments tend to have enhanced pro-school attitudes and academic attainment (Kutnick, Ota, & Berdondini, 2008). Fawcett and Garton (2005) posit that through group work young people are able to learn from, support each other, and collectively problem-solve. Group work techniques in the JoH include: (1) the use of rituals; (2) experiential learning; (3) group problem solving; and (4) reflective learning.

Use of rituals. The use of rituals is a key component to the intervention model. As Malekoff (2004) notes, rituals can build cohesion and increase group distinctiveness. In the JoH rituals serve in each session to enhance sharing and increase comfort among the group members. For example, each session has a similar opening activity that structures the beginning of the group. The younger children gather around a parachute, while the older children sit in chairs in a circle. The group worker begins with a check-in and introduces the topic of the day. To end each session, the participants re-group into a circle and close with a breathing exercise. The group worker reminds participants when they will meet next, the following topic, and how many sessions remain. These rituals create regularity for the participants, which are particularly valuable for children who have experienced disruption in their normal routines (Fothergill & Peek, 2004; Peek, 2008; Weissbecker, Sephton, Martin, & Simpson, 2008).

Experiential learning. Experiential learning has been defined as "the involvement of learners in concrete activities that enable them to experience what they are learning about, and have the opportunity to reflect on those activities" (Silberman, 2007, p. 2). Through experiential activities group participants may not only gain cognitive understanding of a concept, but also develop behavioral and affective skills to understand and internalize knowledge. Indeed, learning experiences involve more than simply hearing and reading, they also consist of many "sensory, information-receiving systems--moving, touching and visualizing" activities (Middleman, 1990, 2-3).

Experiential learning is a central component of the JoH with role plays, cooperative games, and art activities integrated throughout. These enable participants to not only learn about emotions and coping through didactic presentation, but also through hands on activities comprehend common post-disaster emotions and devise healthy coping strategies.

Group problem solving. Group problem solving is another central element of the intervention model. As mentioned above, participants in the group discuss and normalize emotions they may experience after a disaster, and devise solutions and healthy coping strategies to address their feelings. According to Malekoff (2004) problem solving should not rest exclusively on the shoulders of the group leader and that in good group work, participants should be respected as "helpers" and empowered to take an active role in the group. Through rehearsal of emotion regulation techniques group members can use mutual aid to help each other prepare for possible scenarios that may happen outside of the group (Shulman, 1992).

Examples of group problem solving activities in the JoH include skits around positive coping, games teaching positive peer interactions, and discussion on healthy ways to express their emotions. The group leaders facilitate a discussion about the topic and enable the group to

work together to devise strategies to cope in a healthy way. For example during the session on anger, the group worker may ask the children: how they express their anger? What are positive and/or negative ways to express anger and why? What is the difference between anger and aggression?

Specific responses to these questions have included: "when I get angry I just explode" and "I punch things when I am angry." The group worker then looks at the consequences of fighting and asks the group about ways they can handle anger without hurting someone else or getting in trouble.

Reflective learning. Finally, reflective learning helps students acquire better insight and knowledge of their own learning process. Participants gain a "deeper" and "more integrated style" of learning through this type of activity (Grant et. al, 2006, p. 379). Depending on the developmental age of the participants a literacy and or art activity is included in each JoH session to further help the child conceptualize the session topic. Individual reflection with art and journaling activities is used so that participants are able to strategize ways they cope with their own emotions.

For example, during the session on safety the children may be asked to draw or write the people, places and things they feel safe with. In the session on fear, participants are asked to write or draw a time they experienced fear and how they overcame the fear. This is often where references are made to the traumatic experiences of the hurricane. A 12-year-old boy, for instance, drew a picture of himself on the waves entitled "help." In another group, an 11-year-old girl drew her family in their attic attempting to get on the roof as the house flooded. These drawings were discussed within the group and the children reflected on the fear they felt, how

they became safe in those situations, and who are the people, places and things that may help keep them safe in the future.

Illustrating Group Process in the Journey of Hope

The following vignettes provide examples of how JoH activities apply group techniques in three of the sessions. These come from the Adolescent JoH programming in New Orleans in 2009, and are based on transcripts taken during the pilot evaluation (Blanchet-Cohen & Nelems, 2013). Following ethical requirements, all vignettes use pseudonyms to ensure participant confidentiality.

Session: Safety

Introducing the topic of the day and the ritual of checking in with the participants was established in the first session on safety. The group workers begin by introducing themselves, providing a background on the JoH and having each participant introduce themselves. This was followed by a prompt for the group to create the guidelines (rules) they would like to follow over the eight-sessions.

> Group worker: We're going to have 8 sessions and we will meet an hour every Monday and Wednesday. Today we're talking about safety, but we'll be talking about other topics like fear and sadness, too. We'll do fun stuff too, play games. We're also going to make rules for the group so you all have rules that you want in the group.

The group, consisting of seven 6th grade boys, introduced themselves and then created the group guidelines. The first rule shared was: "Be respectful to one another", while another group member chimed in "be honest!" followed by comments such as "Keep your hands and feet to yourself" and "Keep your body objects to yourself." The group workers then added confidentiality and no fighting, points that are often not raised by students. The rules are then posted on a flipchart and brought back to each session, often the group workers need to remind the group of these rules because of the discipline problems that often arise such as name calling

or not being able to keep their hands to themselves. For example in the second session on fear one group member was continuously talking out of turn and harassing another student about the way they were dressed. In turn, the group worker re-visited the rules about the importance of respecting one and other in the group as one of their guidelines.

After group members introduce themselves and create guidelines, the group worker presents the topic of the day beginning with the simple question "What do you think safety is?" This question led to group sharing of their views on the topic of safety. One of the participants, Rodrick, stated that safety was: "Say me and (Participant 2) want to fight and I say "no" and I just walk off – that's safety." Andy said that to him, safety meant "Respect yourself and others. If you don't respect somebody they could probably hurt you. That's what I think."

During this conversation, Kevin mentioned his cousin got shot and stated that his mother wanted to keep his family safe by moving. The topic of keeping safe from violent crime was common in the JoH sessions because many of the participants lived in neighborhoods that were affected by shootings. This further demonstrates that while all of the youth were directly impacted by hurricane Katrina, they also faced chronic traumatic stressors such as community violence. The discussion was also a springboard for other experiential activities that emphasized both safety and social supports to help participants address safety and security issues. Through these activities participants were given time to share their interpretation of the topic, and provided with the opportunity to learn from each other about ways people kept themselves safe with the group workers prompting with questions such as: "How many of you can think of someone you feel safe with?" and participants all raising their hands.

After the discussion, the group worker introduced a reflective art activity. In this activity participants were prompted to draw their "safety map" where they draw themselves and identify

the people, places and things that make them feel safe and supported. A 12-year-old girl, for example shared that she felt safe with her boyfriend, friends, siblings, at her grandma's house and in church. Similarly, a 13-year-old boy drew his friends and his home, but also added the picture of a gun—which he stated made him feel safe. This was a common drawing of the male participants because many lived in high crime neighborhoods. While a difficult topic to discuss, the group worker would then initiate group dialogue on how the participants may keep themselves safe from violent crime.

This portion of the intervention supports Malekoff's (2004) assertion that activity and discussion should relate and act as "two sides of the program coin" (p. 183). Finally, at the end of the session, a breathing exercise brought closure to the group; this ritual established a routine for ending each session.

Session: Stress

A subsequent session on stress followed the same structure as the session on safety, adding a discussion on physical reactions and how to reduce negative stress responses. The group began with a review of what had already been covered and the opening circle ritual which allowed the participants to check in and discuss any thoughts they had since the previous session. The group workers then presented problem solving exercises about what stress was and coping mechanisms.

Similar to the session on safety, the group workers inquired on the participant's view of stress by asking the question: "What is stress?" One participant responded: "When the teachers keep telling me they gonna call my parents – I get stressed out!" The group workers then initiated a discussion about how stress affected the participants cognitively, behaviorally, and physically by asking: "how do you feel stress?" and "what happens to your body when you

feel stress… how do you know you're stressed?" Kevin responded: "Like I can't take this no more and I feel like I'm going to go berserk." Andy added: "My stomach hurts and I have to go to the bathroom."

Andy and Kevin's responses illustrated how participants connect the topic of stress to both physical and emotional reactions. Andy, for example expressed the physical reactions to stress (stomach problems) while Kevin discussed a behavioral reaction. The discussion continued with the group worker asking: "how does your body feel when you're stressed out?" which resulted in the following dialogue:

Rodrick: When people get killed.
Steven: If they lose something that they love.
Kevin: Feels like it's (his body) giving out.
Kevin: When I'm really stressed out I take a deep breath and drink some water.
Andy: I've got stress because I got stuff going on in my family. My mom and my dad broke up.
Group worker: How did you handle that stress?
Andy: Punch things.
Group worker: Does that work?
Andy: No. So, I talk to my sister.

The narrative provides insight into the participant's stressors and how they coped with the situation. Kevin's comment about taking a deep breath and drinking water is an example of sharing a healthy coping strategy with the group. Andy, also shared how he punched things to deal with the stress of his parents break up, but when prompted whether that worked, he devised another way to positively cope with the stress by talking to his sister. In the discussion, the group worker also acknowledged that stress was a normal emotion, and ways to positively cope.

The group workers supported participants in developing coping responses to stress through an experiential activity. In the "trust circle" the group forms a circle, holds onto a rope and collectively leans back. The activity requires that the group work together to keep from falling and breaking the circle. Children were often initially hesitant to lean back because of fear

of falling, however, once they established trust they generally work together to keep the circle from breaking with a lot of laughter and discussion about fear and trust. In de-briefing, the group workers explained that in stressful situations they can also work together to support each other. Finally, the reflective activity included a journaling exercise in which participants write about their current stressors and make a plan on how to positively cope. Many of the participants wrote about the stress associated with standardized tests in school, and that doing their homework or listening in class may help them cope. Finally, the breathing exercise ritual was conducted to close the group and help participants' transition back to class.

Session: Self-Esteem

The seventh session on self-esteem incorporated group work techniques. Being the second to last session, the group dynamics have evolved and the participants were more comfortable within the group and with the group leaders. The session followed the same structure as the previous two sessions, but focused on the concept of self-esteem by encouraging participants to articulate ways to enhance theirs and others self-perception. The discussion of the previous topic began with the question "Do you remember what we talked about last time", with one participant sharing: "We talked about stress, like when your blood pressure goes up, you eat a lot and your hair comes out sometimes." The group worker then prompted the participants by asking: "We're going to talk about self-esteem today. Do you know what that is?" Responses included: "people who have low self-esteem stay away from other people", and "some people come to school with a bad odor." This was followed with a short discussion on the definition of self-esteem, the differences between high and low self-esteem, and the reasons why people did not always feel good about themselves. One student gave an example of what might negatively impact one's self-esteem: "Someone plays a joke on you and the whole class laughs at you…."

Another participant added: “They can’t handle it so they feel they have to fight….that makes their self-esteem higher.” The group worker then asked participants what makes people feel good about themselves or have a high self-worth with one participant stating: “If people say good things about you, makes you feel good.”

Following the discussion an experiential activity was introduced where each participant steps out of the room while the others discussed what they liked about that person. When the person re-entered, the group workers present all of the positive comments. For instance, for Andy: “He is a good person, he keeps himself out of trouble, he don’t let anyone get in his head in a bad way.” And “he’s smart, he’s always protecting his friends.” For Kevin the peers stated: “I like his style” and “he’s a good friend all the time.” After each group member was given the opportunity to participate in the experiential activity a self-reflective literacy exercise was introduced in which participants were prompted to write down five things they were good at or liked about themselves. In brainstorming about strengths in a group context participants practiced positive affirmations, thereby empowering, supporting, and building community among those who may have been troubled after their traumatic experiences. Further, this activity is especially effective for the early adolescents who may have lower self-esteem and are used to being criticized, given also a school environment where teachers often apply a punitive approach to teaching.

Discussion: Significance of Group Work in a Post-Disaster Setting

The JoH model offers young people an approach to process emotions associated with a collective trauma such as a natural disaster. Vignettes from three sessions show how the use of ritual, experiential and reflective learning and problem solving enable group members to collectively process, understand and make sense of emotions commonly experienced after

traumatic events. These reflect Malekoff's (2004) point that group work acts as a protective factor for young people by enhancing their sense of competence, belonging and hope through providing a safe, supportive setting for them to share and process their thoughts and feelings.

This article supports the effectiveness of group work in helping young people learn from and empower each other in ways not achieved through individualized therapeutic interventions (Fothergill & Peek, 2004; Peek, 2008). An initial evaluation conducted in New Orleans found that students who participated in the JoH exhibited improved self-esteem, increased ability to identify their feelings, and a strengthened attachment to their peers and the group workers (Blanchet-Cohen & Nelems, 2013). Subsequent evaluations in New Zealand and Alabama have yielded similar findings and also indicated that the program helped reduce classroom disruptions and other externalizing behaviors (Holleran Steiker & Powell, 2012; Powell, 2011). The format and focus of JoH indeed fills in a gap, complementing conventional treatment approaches that have a more limited reach and focus. Providing social and emotional support to groups of children in schools who have experienced a collective trauma can also support community resilience which is often necessary after traumas such as natural disaster (Barrett, Ausbrooks & Martinez-Cosio, 2008; MacNeil & Topping, 2009; Ronan & Johnston, 2005). Further, given the broad-based nature of the JoH, the intervention may be applicable to other traumatic events such as after a school-shooting, in the event of a terrorist attack, or even as a preventative measure to help children normalize emotions and learn how to effectively cope.

Reflecting on sustainability and transferability of the program, a key consideration is identifying group workers who possess a combination of skills in mental health and group work while being strengths-based. In situations where the school staff have also experienced trauma, the school social worker or counselor may be overwhelmed with the demands around helping

rebuild the school community and providing individualized care to more traumatized students, as well as their own mental health. This means that JoH may need to be delivered by experienced mental health professionals who work outside the school. In these cases, it will be important to build a close relationship with the school to coordinate programming and to figure out the most effective group composition and size. As Tosland & Rivas (2009) explain, a group should be structured so that members have the ability to work together and accomplish its purpose and goals. It is recommended to coordinate with teachers or staff at the school, so that group workers have knowledge of each group member's background before they are assigned to the intervention. Further, it is suggested that the group worker be aware of each members background (i.e. disciplinary issues, mental health diagnoses) prior to commencing the group, and that the group be comprised of a mix of students ranging from those who may be exhibiting more difficulties to those who are coping well. It is important to note that if a child is exhibiting extreme externalizing behavior and is unable to function in the group, the JoH may not be appropriate. Indeed, there are limitations to JoH for participants who exhibit either acute and/or chronic trauma from a disaster or related events, and who are so distressed that they may be unable to function in a group setting perhaps requiring an individualized, targeted mental health intervention.

Conclusion

The JoH contributes to the field of post-disaster group work by offering a fairly simple model that helps group members build coping skills using a strengths-based approach. Through the use of group work the intervention builds children's internal and external resources to help them move forward after a difficult collective trauma, such as a natural disaster. By not focusing specifically on the traumatic event, but common emotions and reactions that may subsequently

arise, the JoH seeks to empower children. Given the growing risk of natural disasters globally, one can expect an increase in demand for programs such as the JoH that equips young people with healthy strategies to build resilience and enhance their capacity to cope with current and future life stressors.

CHAPTER V

Enhancing Coping and Supporting Protective Factors after a Disaster: Findings from a Quasi-experimental Study

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Background

Children are one of the most vulnerable populations during and after an acute trauma such as a natural disaster (Garrett et al., 2007; Kataoka et al., 2009; La Greca & Silverman, 2009; Walsh, 2007). Children of all ages rely heavily on their parents or caregivers for support, and are susceptible to behavioral, physiological and emotional issues in the aftermath of the event (Peek, 2008; Anderson, 2005; Silverman & La Greca, 2002). Young people may also experience a range of psychological stressors such as fear of death or loss of a loved one, the loss of a home and community, displacement to a strange neighborhood or school, and even separation from their family (Abigail Gewirtz et al., 2008; La Greca & Silverman, 2010).

Acute events are often short-lived and occur at a particular time and place. Examples of acute trauma can include: gang-related violence, terrorist attacks, school shooting, natural disasters (i.e. hurricanes, earthquakes, floods), serious motor vehicle accidents, violent or sudden loss of a family member or loved one, and sexual or physical assault (i.e. being raped, beaten or shot) (National Child Traumatic Stress Network Network, 2012). The majority of young people will experience some form of emotional or physical reaction after an acute event such as a natural disaster. For example, young people between the ages of 5-12 may exhibit fear, guilt about the event, sadness, irritability, anger, aggression, clingy behavior, nightmares, school avoidance, poor concentration and withdrawal from activities and friends (Lazarus, & Jimerson, 2002; FEMA, 2013). While many of these reactions are normal and will subside over time, research has demonstrated the importance of positive coping and building protective factors to

help children overcome the distress associated with the trauma (Peek, 2008; Bonanno, Galea, Bucciarelli & Vlahov, 2007).

Risk Factors Associated with Disaster Trauma

Experiencing a natural disaster often results in acute trauma that can lead to immediate and longer-term mental health challenges (Masten & Obradovic, 2007). Children's reactions to disasters vary greatly depending on their level of exposure, age, intellectual capacity, gender, and family and individual support systems (Madrid, Grant, Reilly, & Redlener, 2006; Tolin & Foa, 2006). They are at risk for a host of stressors including displacement from homes and community, loss of family members and disruption of normal routines (La Greca & Silverman, 2009). Children are also at a heightened risk for a number of emotional and adjustment issues in the year after a disaster, including anxiety, anger, depression, and behavioral or conduct disorders, such as inattention or hyperactivity which may lead to a variety of poor peer, teacher, and familial interactions (Dube et al., 2001; Jaycox, Morse, Tanielian, Stein, 2006; McFarlane & Van Hooff, 2009; Putnam, 2006; Strauss et al., 2011). Post-traumatic stress disorder (PTSD), one of the most commonly measured post-disaster mental health disorders, has been reported as high as 18% during the weeks following the disaster through the first year (La Greca & Silverman, 2009). Poor or non-existing coping strategies, combined with a traumatic experience, only increase the risk for negative outcomes.

Coping and Other Protective Factors Associated with Disaster Trauma

Coping is the cognitive and behavioral attempt to control, lessen or endure internal and/or external strains which have resulted from stressful situations (Folkman & Lazarus, 1980). Children can exhibit both positive and negative coping responses after experiencing a disaster. Negative coping strategies may include avoidant coping, ruminating, and venting frustration

about the stressor, whereas, positive strategies often involve active coping such as engaged efforts to deal with stress, positive reappraisal and problem solving (Dempsey, 2002; Lengua, Long, & Meltzoff, 2006).

Children with active coping responses have a greater ability to respond to and remain resilient after a traumatic event, while negative and avoidant coping can often lead to maladjustment and increased mental health symptoms (Dempsey, 2002; Rosario, Salzinger, Feldman, & NgMak, 2003). Studies have shown that after a disaster healthy coping strategies may even mediate mental health disorders and reduce symptomology (Clarke, 2006; Compas, Connor-Smith, Saltzman, Harding-Thomsen, & Wadsworth, 2001; Evans & Oehler-Stinnett, 2006; Teicher et al., 2002). Specific coping strategies that have been linked to reduced anxiety, depression and PTSD symptoms include positive thinking, cognitive restructuring, emotional regulation, acceptance and emotional expression (Lengua et al., 2006; Wadsworth et al., 2009; Wadsworth et al., 2004)

Several protective strategies have also been shown to improve children's ability to overcome adversity (Masten & Obradovic, 2006; Stevenson & Zimmerman, 2005; Walsh, 2007; Williams et al., 2008). Protective factors are influences that assist children to guard against or avoid risks and increase resiliency in traumatic situations (Kirby & Fraser, 1997). These include a sense of agency, affect regulation, empathy, shared experience, community connections, positive relationships, social support from peers and adults, and a positive school, home and community environment (Betancourt & Khan, 2008; Masten & Obradovic, 2006; Stevenson & Zimmerman, 2005). These pro-social protective behaviors can also help mitigate post-traumatic stress symptoms (Cohen et al., 2009; Williams et al., 2008).

Post-Disaster Interventions

While post-disaster intervention research has generally focused on reduction of PTSD symptoms (Silverman et al., 2008), there has been a recent focus on more broad-based interventions directed towards enhancing protective mechanisms and coping capacity (La Greca et. al, 2010; Moore & Varela, 2010; La Greca, 2007). Such interventions that provide psycho-educational knowledge and promote empowerment may help children overcome difficulties associated with the disaster (Hobfoll et al., 2007; Peek, 2008; Sapienza & Masten, 2011). It has also been suggested that post-disaster interventions should be more easily accessible and address prior and current traumatic events and losses (Jaycox et al., 2010; Salloum, Carter, Burch, Nan Garfinkel, & Oversteet, 2010). Silverman and colleagues (2008) examined 21 studies of evidence-based psychosocial programs for children and adolescents who exhibited psychological symptoms related to traumatic events. They found that most were cognitive-behavioral focused with the aim to treat the symptoms of PTSD. While these strategies may be appropriate for some children, programs focusing solely on alleviating PTSD symptoms are limiting because post-disaster emotional reactions vary greatly (Evans & Oehler-Stinnett, 2006; Neria et al., 2008).

Recent studies have also examined the structure of post-disaster recovery programs (first few weeks to 1 year) and found a gap in broadly accessible programming for children during this phase (La Greca & Silverman, 2009; Wolmer, Hamiel, & Laor, 2011; Wolmer, Laor, Dedeoglu, Siev, & Yazgan, 2005). Moreover, few interventions include psycho-educational techniques (not therapeutic) and are available to entire classrooms (Wolmer, Laor, Dedeoglu, Siev, & Yazgan, 2005; La Greca & Silverman, 2009). Although is it understood that therapeutic programs can help children and young people overcome PTSD symptoms, broad-based interventions that focus on building healthy coping strategies and enhancing protective factors can be effective, widely

delivered, and may mitigate future mental health issues associated with the disaster (Gelkopf & Berger, 2009; La Greca & Silverman, 2009). To address the gap in understanding how broadly implemented post-disaster psycho-educational programs may address outcomes for children experiencing a natural disaster, this study examines the Journey of Hope intervention. This school-based intervention is designed to help build protective factors and coping in young people who have experienced a disaster.

The Journey of Hope Intervention

The Journey of Hope (JoH) is a manualized intervention that aims to support children in developing positive coping strategies and other protective factors while normalizing emotions associated with a traumatic event, such as a natural disaster. The core objectives of the JoH are to: (1) facilitate understanding and normalization of trauma-related emotions; (2) promote protective factors such as school bonding, pro-social behaviors, and peer relationships; (3) minimize risk factors including conduct problems, inattention, poor peer relationships; and (3) encourage development of positive coping strategies such as problem solving, emotional regulation and expression (Save the Children, 2009).

The JoH is comprised of three manuals which include eight 1-hour sessions and are generally delivered to groups of 8-10 children and adolescents in a school-based setting. The model was designed for kindergarten-2nd grade, 3rd-5th grade and 6-8th grade incorporating developmentally appropriate activities to promote discussion, cooperative play, arts and literacy to address common disaster related emotions experienced by the children. The intervention model utilizes group work techniques to address common emotions and build capacity to cope with those emotions after a traumatic situation. Experiential and reflective learning techniques are also employed to help children process and manage emotions commonly experienced

following a traumatic event (Malekoff, 2008; Alison Salloum et al., 2009). The following study examined the impact of one of the manuals, the JoH for elementary students between 3rd-5th grade.

Study Aims and Hypotheses

Given the lack of research for widely accessible post disaster interventions for children, this study sought to implement and evaluate the effectiveness of the Journey of Hope in elementary schools with children between the 3rd and 5th grade following a natural disaster. Based on knowledge of risk and protective factors related to children's trauma experiences and the impact of positive coping in reducing mental health symptomology, this study hypothesized that students engaged in the JoH intervention would exhibit: (1) improved protective factors, such school bonding and pro-social relationships; (2) decreased risk factors such as conduct problems, inattention, emotional problems, and peer relationship problems; and (3) improved positive coping skills beyond those experienced by students not engaging in the JoH intervention.

Method

Setting

This study is part of a larger effort to deliver the Journey of Hope intervention to children between second and twelfth grades who experienced a natural disaster. On April 27th, 2011 a class E-4 tornado that spanned more than a mile struck Tuscaloosa, Alabama; over 1,000 people were injured and approximately 65 were killed. This was the highest death toll from a tornado in the United States since 1955 (NASA, 2011). In response, a charitable organization, Save the Children, collaborated with Tuscaloosa city schools to provide the Journey of Hope programming to students. Three schools were included in this study due to their location in the

highest impact areas of the tornado: one school was completely destroyed, two were damaged and all of the schools included students who lived in areas directly affected by the tornado. The study was conducted from September to December 2011 with students in third, fourth, and fifth grades.

Study Design

A quasi-experimental waitlist control design was utilized to evaluate the effectiveness of the JoH program among children across the 3 schools. Due to logistical constraints on the part of the school district, schools were not randomly assigned to a condition and each school had both experimental and waitlist control participants. In order to maintain ethically responsible practice, the schools only agreed to a control group if all children received the JoH program; thus, those assigned to the control group received JoH within one month after the data collection for both groups was complete. None of the control group's experience with JoH are presented in this article.

As shown in Figure 1, a total of 134 students obtained parental consent to participate in the study. While not all of the students obtained consent to participate in data collection portion of the study, they participated in the JoH intervention activities. After enrollment, all participants were given a baseline pretest and the youth assigned to the experimental group participated in the JoH, while those in the waitlist control received the intervention in the following wave of program implementation. There were a total of 32 students who did not complete the post-test due to transitioning schools during the study. Changing schools is common after disasters because during the rebuilding process families often relocate to different neighborhoods once permanent housing is secured. In the final analysis there were a total of

N=102 students, *n*=48 in the experimental group and *n*=54 in the control group. Of the three schools, there were *n*=40 in school 1, *n*=47 in school 2, and *n*=15 in school 3.

Sample Selection and Assignment to Groups

Children were referred to the Journey of Hope program by teachers and social workers based on their level of distress and functioning in the classroom. The teachers and social workers were instructed to recruit a range of students from those who were coping well to those who were having some difficulties in the classroom. Classrooms were assigned to the experimental or waitlist condition based on the teacher's preference concerning timing of intervention to minimize disruption in academic instruction. As shown in Table 1, the majority of the students were African-American (*n*=82, 80.4%) and more than half (*n*=54, 52.9%) were females. Participants were enrolled in third grade (*n*=33, 32.4%), fourth grade (*n*=41, 40.2%) or fifth grade (*n*=28, 27.5%).

Procedure

Following approval by principals and administrators at each school, consent forms were sent home to student's parents/primary caregivers. Only students who received parental consent and provided assent participated in the study. Youth were also excluded from participation if the school social worker determined the student had severe cognitive disabilities or emotional difficulties that made them unable to benefit from group processing. These students were referred for individual counseling through the school social worker.

The research followed ethical guidelines established by the affiliated university's Institutional Review Board (IRB). Baseline measures were completed by both teachers and participants approximately one week before participation in the JoH intervention and post-tests were conducted within one week after conclusion of the eight sessions. Trained master's level

social workers administered the questionnaire's to assist the students in reading and completing study questionnaires and to assist if any of the participants exhibited distress.

Measures

The pre and post-tests consisted of students' self-report measures to assess coping skills and peer relationships, and a teacher-report measure to assess risk and protective factors such as pro-social behavior, peer problems, conduct problems, hyper/inattention, and emotional distress. Sample demographics were measured as: age (8-12 years of age), gender (1=male, 2=female), race (African American=1, Native American=2 , White=3, Latino=4) , and grade currently in school (third=1, fourth=2, fifth=3).

Youth report measures

Youth Coping Index. (YCI) measured youths' self-reported coping by assessing the degree to which children used specific healthy coping behaviors the children use when they experience difficulties (e.g. try to talk things out and compromise, try to figure out how to deal with problems, try to maintain friendships, talk with someone about how your feel) to manage life stressors (McCubbin et al., 1996). Participants rate the frequency of their use of 31 coping strategies, scored on a 5-point Likert scale (0=Never, 1=Hardly ever, 2=Sometimes, 3=Often, 4=Most of the time). Internal consistency for the YCI is high (Cronbach's alpha = .86) (McCubbin et al., 1996). The predictive validity has also been established through correlating the YCI to the outcomes of youth in a residential treatment program, and by conducting a discriminant analysis of YCI's success in predicting successful adaptation of youth in the program (McCubbin et al., 1996). A reliability analysis was also conducted for the sample in this study and was good (α=.72).

School bonding. School bonding was measured by The Community that Cares (CTC) survey, a validated measure that assesses risk and protective factors for children and adolescent problem behaviors. For the purpose of this study, school bonding sub-scale was included as a protective factor that measured indicators of liking school, time spent on homework, and perceiving schoolwork as relevant. Items were measured on a four point Likert scale (1=NO!, 2=no, 3=yes, 4=YES!). Internal consistency reliability for the current study was acceptable (α=.69).

Teacher report measure

Strengths and Difficulties Questionnaire. (SDQ) is a brief 25-item teacher report of children's psychological symptoms and impairment (Goodman, 2001) and used for children between the ages of 4-16. Items are scored on a three point Likert scale (0=Not true, 1=Somewhat true, 2=Certainly True) indicating the amount each symptom the target child is exhibiting (Goodman, 2001). The SDQ consists of five subscales with five items per scale. The internal reliability for the current study's sample was high for the total scale (α=.77), as well as the specific subscales of emotional symptoms (α=.64), conduct problems (α=.70), hyperactivity (α=.84), peer problems (α=.52) and pro-social behaviors (α=.86).

Facilitator Training

Facilitators of the JoH intervention were master's level social workers, counselors or psychologists with prior experience working with children in a school-based setting. The training was comprised of three 8-hour days of contact hours that provided education on children's common reactions after emergencies, training on group work techniques and role-playing exercises. Trainees were also provided education on mandatory reporting laws within the school system concerning child abuse. Those who were trained in the JoH were also

evaluated concerning their knowledge of the program and children's reactions or responses to traumatic events by assessing their pre-training and post-training knowledge of children's reactions to trauma, program facilitation and psycho-educational knowledge. To ensure program fidelity, facilitators were provided technical assistance throughout the implementation of the program and the program manager conducted weekly group observations. Additionally, facilitators were required to complete fidelity checklists to monitor their own compliance with delivery of specific program components.

Statistical Analyses

Data were entered and checked for accuracy by the researchers. Items were summed to create total scores for the YCI, SDQ and CTC. Subscale scores were calculated from the SDQ to identify pro-social attitudes, emotional symptoms, peer interaction, conduct problems and inattention/hyperactivity. A hierarchical linear model (HLM) was used because of its ability to assess change in the dependent variables by group over time in a multi-level structure (Snidjers & Bosker, 1999). More specifically, HLM was used because it was appropriate for the analysis of nested data, thereby identifying the relationship between the predictor and outcome variables through addressing regression relationships of both level-1 (individual) and level-2 (schools) (Woltman, Feldstain, MacKay & Rocchi, 2012). Using HLM, both the within- and between-group regressions depicted the relationship between participation in the Journey of Hope and the outcome variables. Moreover, HLM analyses were conducted to account for the variation of the individuals by group (control and intervention) nested within schools (Luke, 2004). This analysis method was also used because of its ability to examine cross-level data relationships and correctly untangle the effects of between- and within-group variance. It is also a favored method for nested data because fewer assumptions are required to be met than with other statistical

methods (Raudenbush & Bryk, 2002), and can accommodate lack of sphericity, nonindependence of observations and small group sample sizes (Woltman, Feldstain, MacKay & Rocchi, 2012).

To determine the appropriate sample size for the study, we conducted a power analysis with the program G*Power to determine whether our design had enough power to detect significant change between pretest and posttest. We performed a power analysis for an HLM for two groups with two repeated measures, assuming an effect size of .20, an alpha of .05 and a power of .80. The power analysis revealed that a sample size of 81 individuals should be sufficient to detect a significant difference between pretest and posttest (Faul, 2009).

Missing value patterns were examined for the 7 dependent variables (coping, emotional symptoms, conduct problems, inattention/hyper-activity, peer relationship problems, pro-social behaviors and school bonding) at both time points; very little missing data (96%-100% complete) was discovered. Little's MCAR (missing completely at random) was conducted on the entire sample and supported the hypothesis that missing values occurred completely at random ($X^2_{4050} = 4087$; $p = .33$) (Little, 1988). Considering the data was MCAR, the means were imputed using the replace missing values command in SPSS.

Following dummy coding of the intervention group as 0 and the waitlist control group as 1 to observe the differences between groups, regression slopes were estimated in HLM for the individual level dependent variables at the school level. The fixed effects of treatment, time, and treatment by time were the parameters of interest for establishing the program impact estimates. All statistical analyses were conducted with the Statistical Package for the Social Sciences (SPSS), version 20.0.

Results

Baseline Measures

To investigate whether the groups were equivalent, the experimental and waitlist control conditions at time 1 (using independent samples t-tests) and demographic variables (using chi square tests of independence) were conducted. No significant differences were found on demographic variables at pretest; however, significant differences ($p<.05$) were found on the Youth Coping Index.

Upon examining the score differences at baseline it appeared that variation in disaster exposure was dissimilar between the groups. The intervention group was primarily from a school that was destroyed by the tornado and children were temporarily relocated to another school, while students in the waitlist control group experienced the tornado but were not displaced from their school. Although fewer differences would have been ideal, our main analyses identified the interaction effect of group by time to account for the baseline differences.

Intervention Effects

HLM analyses tested the differential effect of the treatment (JoH group) compared to the wait-list control across the dependent variables. Table 2 presents results of the separate HLM analyses for coping (YCI), pro-social attitudes, emotional distress, inattention/hyperactivity, peer problems and conduct problems (SDQ), and self-reported school bonding (CTC). Estimated marginal means and their standard errors (SE's) are provided for each time point and their interaction effects. All statistical significance tests were evaluated with an alpha level of .05. Cohen's d was also calculated to determine the standardized effect size.

As Table 2 indicates, there were two Time by Group interactions indicating a change over time difference between the Journey of Hope and waitlist control groups. The first interaction effect of treatment by time in predicting YCI scores was statistically significant.

Children receiving the Journey of Hope intervention reported a significant increase in coping skills from baseline (T-1) to post-test (T-2) $F(100)=5.270$, $p<.05$ compared to the control group. The main effect for time was also significant as scores showed a significantly linear increase for those in the Journey of Hope group $F(100)=4.368$, $p<.05$ whereas the control group illustrated no such change. A moderate effect size of ($d=.44$) was also found for the Journey of Hope group which according to Cohen (1988), values of 0.1, 0.3, and 0.5, respectively, serve as indicators of small, moderate, and large effect sizes.

The second treatment affect was found for the Pro-social behavior subscale. There was a significant treatment by time interaction effect for the teacher report pro-social behavior sub-scale of the SDQ $F(95)=4.286$, $p<.05$. The treatment by time interaction affect indicated that those in the Journey of Hope group had a significant increase in pro-social behaviors between T-1 and T-2 whereas there was no change in the control group between the two time points. A similar medium effect size of ($d=0.41$) was found for the pro-social scale. While the self-report school bonding sub-scale did not have a statistically significant treatment by time interaction, it did have a small, but meaningful effect size ($d=.28$). No statistically significant interaction between treatment and time was detected for the other teacher report sub-scales of the SDQ including: peer problems, inattention/hyperactivity or conduct problems, however, the data trended in the hypothesized direction. Furthermore, emotional distress had a small, but meaningful effect size ($d=0.11$) (Cohen, 1988).

Discussion and Applications to Social Work

This study hypothesized that participation in the Journey of Hope intervention would improve protective factors, decrease risk and improve positive coping skills for children compared to the wait-list control group. As hypothesized, participation in the JoH showed a

statistically significant treatment interaction with increased coping and pro-social behaviors, and a meaningful effect on school-bonding.

While not all measures were statistically significant, the study has implications for future application and adaptation of the Journey of Hope. First, all protective measures were either statistically significant or had a meaningful effect size. This finding is particularly relevant considering the intervention seeks to help build protective factors to reduce risk of both current and future mental health and psychological symptoms. As well documented studies have shown, children with healthy coping skills (e.g. positive thinking, acceptance, emotional expression) and positive protective mechanisms (e.g. positive peer and adult relationships, social support, health school environment) have an increased capacity to overcome the adversity of a disaster (Lengua et al., 2006; Masten & Obradovic, 2006; Stevenson & Zimmerman, 2005; Wadsworth et al., 2009). The outcomes of this study indicate the Journey of Hope may be one mechanism to help build those abilities with the general population of children affected by a disaster.

Interestingly, none of the risk indicators showed significance or meaningful effect sizes considering they are not mutually exclusive from protective factors. Reporting on the measures is one possibility for the difference in outcomes given that most of the risk factors were teacher report, therefore may not have been as sensitive as self-reports. It should be noted that in future studies, measures on all indicators should be completed by both teachers and the youth.

Another consideration is that all three of the schools who took part in the study had at least 80% of their students on free and reduced lunch indicating most of the participants came from impoverished neighborhoods. As studies indicate, children who live in poverty are at a higher risk for future mental health issues than their peers in more affluent neighborhoods even without experiencing a disaster (Fothergill & Peek, 2004; Zakour & Harrell, 2003). Coupled

with disaster exposure, children in impoverished neighborhoods are at an even higher risk for behaviors such as conduct issues, peer problems and emotional distress (Fairbank & Fairbank, 2009; McLaughlin et al., 2009; Sapienza & Masten, 2011). Considering the dual risk of poverty and disaster exposure may inform further curriculum development around reducing risk among children not only who have experienced a disaster, but also chronic poverty.

Study Limitations

Although significant differences were found between experimental and control groups concerning coping and pro-social behaviors, several limitations must be noted. First, given that the study employed a wait-list control design contamination of the control group was a methodological concern. Many of the waitlisted children had direct interaction with those who were in the experimental group. Therefore, they had knowledge of the activities and topics discussed in the program during the study period which may have impacted their self-report measures.

Significant differences between intervention and control group were also found at baseline (JoH group scored significantly lower on coping and subscales of the SDQ). This was an unforeseen issue that may be explained by the difference of disaster exposure among the students in the various schools. While all the children in Tuscaloosa were affected, some were displaced from their schools while others did not have that disruption. Another reason for differences between the JoH group and waitlist control may have been due to a selection bias from teachers and social workers. Although they were instructed to refer a mix of children to each group, it is possible they recommended students they viewed as most in need to the initial JoH group because they received the intervention at an earlier point in time. Despite the likelihood that children who participated in the JoH were more traumatized than the control due

to their exposure to the tornado, the intervention appeared to be effective in returning children to a normal level of coping and pro-social behaviors.

The challenges associated with conducting research in real world settings such as schools has been well documented (Weisz, Sandler, Durlak, & Anton, 2005; Proctor, Landsverk, Aarons, Chambers, Glisson, & Mittman, 2009). The inability to assign students randomly to groups due to logistical barriers prohibited the use of equivalent groups design. The sample selection process was created in partnership with the school system, which was essential to successful implementation of the program; however, procedures required teacher interaction in the sample assignment protocol. Although teachers were trained and encouraged to refer students who were both in need of assistance and those who appeared to be coping well, it is evident from baseline scores that groups were not equivalent. However, as the intervention group showed lower scores on all measures at baseline, the significant improvement on coping and pro-social behaviors at post-test, it appears the JoH intervention was effective, although its effect size may be underestimated in this study.

The small sample was another methodological constraint in this study. Given the time of the study and that many schools were still in the process of re-opening, it was difficult to obtain parental consent and school collaborators in the fall of 2011, just months after the tornado hit Tuscaloosa. This limitation is common in post-disaster research as communities are often in the process of rebuilding and are still in a state of disorganization (La Greca, 2003). Another difficulty was finding sensitive and accurate measures to appropriately assess coping skills and overall difficulties among children who have experienced a disaster (Roberts & Everly, 2006). While there are a number of validated post-traumatic stress scales, there are few that measure

other disaster related symptoms, such as post-disaster coping, peer relations or more generalized difficulties (Roberts & Everly, 2006).

Clinical Significance

Despite the limited findings of this study, there are a number of clinical implications that can be drawn. First, there are very few evidence-based broadly accessible interventions available to children after a disaster (Silverman et al., 2008), and many focus on children who are exhibiting post-traumatic stress symptoms. Many children will not be diagnosed with PTSD, but experience a host of other stressor related to the disaster (Evans & Oehler-Stinnett, 2006; Jaycox, Morse, Tanielian, Stein, 2006; Kataoka et al., 2003; Liu et al., 2011). This study illustrates that a broad-based intervention delivered in the schools can assist children build coping skills and enhance protective factors following a major traumatic event.

The outcomes of this study provide the foundation for future research on the topic of school-based post-disaster interventions. This study is the first quasi-experimental design to be conducted using the Journey of Hope and future replication studies with larger samples in other communities impacted by a disaster may help develop further understanding of how JoH enhances coping and builds resilience in children. Since 2010, over 450 million people have been impacted by natural disasters (International Monetary Fund, 2012), and recent trends and predictions indicate that these disasters will continue to increase (Gall, Borden, Emrich & Cutter, 2011). Given these trends, it is important to have broadly accessible and relatively inexpensive programs to help children cope with and overcome these traumatic events.

Figure 1: Flow of participants through the Journey of Hope study

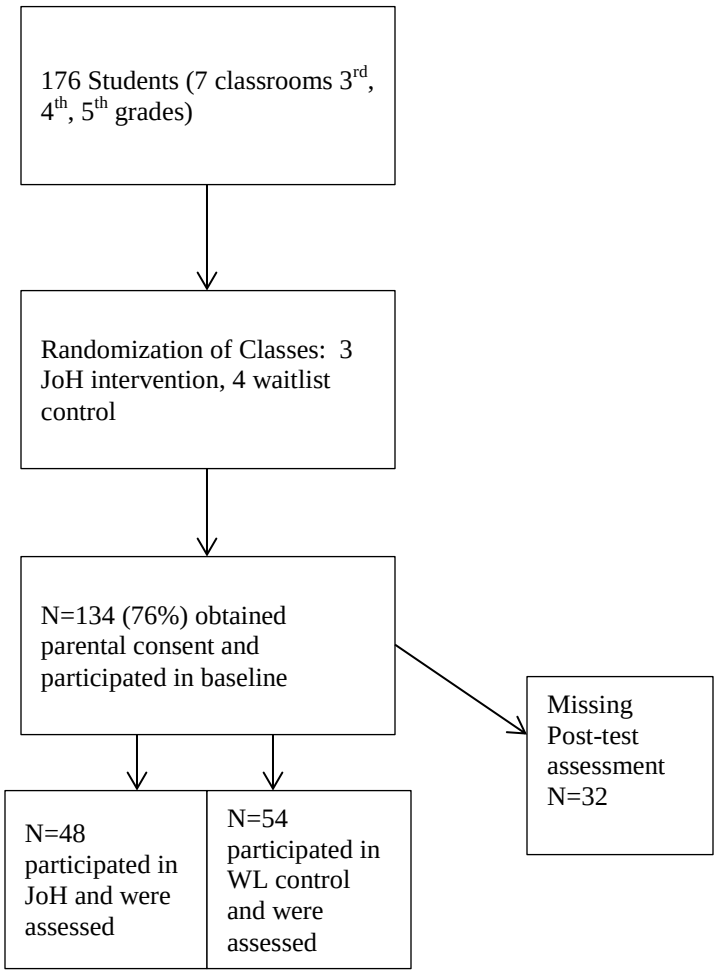

Table 3: Sample Demographics

	Total	Intervention	Control	χ^2
Age				
8	20 (19.6%)	12 (29.2%)	6 (11.1%)	13.65**
9	39 (38.2)	22 (45.8%)	17 (31.5%)	
10	33 (32.4)	11 (22.9%)	22 (40.7%)	
11	9 (8.8)	1 (2.1%)	8 (14.8%)	
12	1 (1.0)	0	1 (1.9%)	
Grade				
3	33 (32.4%)	21 (43.8%)	12 (22.2%)	7.49*
4	41 (40.2%)	19 (39.6%)	22 (40.7%)	
5	28 (27.5%)	8 (16.7%)	20 (37.0%)	
Gender				
Male	48 (47.1%)	22 (45.8%)	26 (48.1%)	.05
Female	54 (52.9%)	26 (54.2%)	28(51.9%)	
Ethnicity				
African American	82 (80.4%)	39 (81.3%)	43 (79.6%)	4.05
Native American	2 (2.0%)	1 (2.1%)	1 (1.9%)	
White	6 (5.9%)	2 (4.2%)	4 (7.4%)	
Latino	6 (5.9%)	4 (8.3%)	2 (3.7%)	

***P<.001
*P<.05

Table 4: Results of HLM Major Outcomes

Outcome Variable	**JoH (mean, SE)**	**Control (mean, SE)**	**Mean Difference [95% CI]**	**Mean Difference P**	**Treatment**	**Treatment x Group**	**Effect Size *(Cohen's d)***
Protective Factors							
Coping (YCI)							
T-1	103±1.630	110±1.537	6.50 [2.06,10.95]	.005	F 5.270	F 4.368	0.414
T-2	108±1.484	110±1.399	1.988 [2.06, 6.03]	.332	*P*=.024*	*P*=.039*	
Pro-social Behavior							
T-1	7.58±.531	8.57±.569	.99[-.30, 2.28]	.125	F 1.153	F 4.286	0.411
T-2	8.31±.524	8.58±.566	.27[-1.01, 1.55]	.661	*P*= .299	*P*=.041*	
School Bonding							
T-1	15.47±.140	16.35±.676	.503[-.210, 1.22]	.165	F .500	F 2.037	0.283
T-2	15.72±.632	15.84±.155	-.244[-1.00, .511]	. 523	*P*=.489	*P*=.157	
Risk Factors							
Emotional Distress	1.02±.224	.981±.211	.039[-.65, .57]	.880	F=.043	F=.330	0.114
T-1	.876±.186	1.01±.178	.145[-.56, .29]	.518	*P*=.837	*P*=.567	
T-2							
Peer Problems							
T-1	1.11±.221	1.38±.235	.274 [-.91, .37]	.804	F 1.005	F .060	0.049
T-2	1.15±.229	1.49±.241	.334[-.99, .32]	.566	*P*=.318	*P*=.806	
Hyper Activity							
T-1	3.71+.411	2.96+.386	-.751[-1.87, .37]	.186	F 1.531	F .212	0.091
T-2	3.39+.417	2.84+.396	-.556[-.59, 1.68]	.336	*P*= .219	*P*= .647	
Conduct Problems							
T-1	1.51±.607	1.36±.636	-.158[1.29, .98]	.784	F .120	F .001	0.006
T-2	1.41±.610	1.24±.643	-.181[-1.34, .98]	.757	*P*= .730	*P*=.970	

CHAPTER VI

Supporting Children after a Disaster: A Case Study of a Universal School-Based Intervention

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Introduction

Large scale natural disasters can shock the infrastructure of communities, displacing thousands of people and threatening individual's sense of safety and security (Wadsworth et al., 2009). In the aftermath of these disasters, physical and emotional recovery may be long-lasting. During the initial response phase, those affected by the disaster are usually offered services for both their basic needs (i.e. food, shelter, clothing) and emotional needs (i.e. crisis counseling); however, in the longer term (3 months to 1 + years), many of the services have dissipated or are not easily accessible despite the continued need of many individuals and communities (Hooks & Miller, 2006).

Children are one of the most vulnerable groups during and after a natural disaster (Garrett et al., 2007; Kataoka, Rowan, & Hoagwood, 2009; Walsh, 2007). Children may experience a range of stressors such as fear of death or loss of a loved one, the loss of a home and community, displacement to a strange neighborhood or school, and even separation from their family (La Greca & Silverman, 2010). Commonly diagnosed disaster-related psychological disorders in children can include acute stress reactions, adjustment disorders, depression, panic disorders, posttraumatic stress disorder (PTSD) and anxiety disorders (Kar, 2009; Vernberg et al., 2008; Weems et al., 2007). More general emotional consequences may include anxiety, nervousness, anger, depression, an increase in bullying and other externalizing behaviors such as fighting at school and/or at home (Jaycox, 2006; Kataoka et al., 2003). While many of these reactions are normal and will subside over time, research has demonstrated the importance of healthy coping

ability and presence of protective factors to help children overcome the distress associated with the trauma (Peek, 2008; Bonanno, Galea, Bucciarelli & Vlahov, 2007).

This study examines one psychosocial program, the Journey of Hope (JoH), designed for and provided to children in the longer-term (3 months-1+ year) post-disaster recovery period. The 8-session intervention composed of developmentally appropriate manuals is delivered in schools bi-weekly, providing children (k-5th grade) and early adolescents (6th-8th grade) general socio-emotional skills to cope with and recover from a natural disaster. By examining this program as a case, the authors explore the impact of the program from multiple perspectives including child participants, school social workers and program facilitators.

The following case-study will provide a background on risk and protective factors for children after a disaster, followed by an overview of school-based mental health programs and policies. The case—the Journey of Hope - will be presented including outcomes from qualitative interviews with implications for the use and development of the program in future disasters.

Background

Risk and Protective Factors Associated with Disasters

Children who experience a disaster are at risk for a host mental health symptoms (Masten & Obradovic, 2008). Posttraumatic stress disorder (PTSD) is one of the most common mental health diagnoses in children following a disaster; prevalence rates range from 18.4 to 38.4 percent (Neria, Nandi, & Galea, 2008). Other issues related to disaster exposure can include depression, anxiety, panic disorders and somatic complaints such as sleep disturbances (Foa, Stein, & McFarlane, 2006; Norris, 2006). There are numerous risk factors leading to emotional distress symptoms in children who have experienced a disaster. These factors may include greater exposure to the disaster, witnessing others in life-threatening situations, having family members die, being injured, demographic factors (i.e. younger age and being female),

preexisting risk-inducing characteristics (e.g. temperament, previous anxiety or depression), the post-disaster recovery environment, lack of psychological resources, parental distress and length of displacement.

Conversely, protective factors can also mitigate post-disaster mental health symptoms in children who have experienced a disaster (Masten & Osofsky, 2010; Walsh, 2007). These factors may include parental and social support, promoting a sense of control, normality and empowerment (Cohen et al., 2009; Sapienza & Masten, 2011; Williams, Alexander, Bolsover, & Bakke, 2008). Children with active coping responses may also have a greater ability to adapt after a traumatic event than do those with poorer coping behaviors (Dempsey, 2002; Rosario, Salzinger, Feldman, & NgMak, 2003). Specific coping strategies include positive thinking, cognitive restructuring, emotional regulation, emotional expression (Lengua, Long, & Meltzoff, 2006; Wadsworth, Santiago, & Einhorn, 2009; Wadsworth et al., 2004).

School-Based Mental Health Programs

School-based mental health interventions are one method to provide services to children after a disaster. They are one of the most common venues for practitioners to deliver mental health services to children targeting a wide spectrum of issues and screening those who may be experiencing distress (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002; Atkins, Hoagwood, Kutash, & Seidman, 2010; Greenberg, 2004; Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001). While schools allow broad access to all children, a recent study conducted by Rolfsnes & Idsoe (2011) found that most post-disaster mental health interventions are more narrowly focused on treating children with diagnoses such as PTSD. While these types of interventions are appropriate for children with post-traumatic symptoms, more general socio-emotional programming for children who are not exhibiting mental health symptoms may be

appropriate in enhancing coping skills and building protective factors after an natural disaster (Evans & Oehler-Stinnett, 2006; Neria et al., 2008).

School-Based Mental Health Policies

School-based interventions are widely implemented after a disaster, however, there is no disaster-specific federal policy for mental health in schools. Most of the policies supporting programming falls under the under the Individual with Disabilities in Education Act (IDEA), which allows "emotionally disturbed" children to receive "Free and Appropriate Public Education" (Individuals with Disabilities Education Improvement Act, 2004, p. 118). This act affirms that all special education, including mental health services that a child needs to stay in school, must be provided by public schools. Furthermore, schools are required to provide services "on site" to students with mental health needs, including psychiatric care for diagnostic and evaluation purposes; a mental health professional must be available to all "emotionally disturbed" children in the school during the school day (Kataoka, Rowan, & Hoagwood, 2009). Provisions in the IDEA include widely applicable services that are necessary to help children with mental health needs remain in school and benefit from their education. This includes psychological services, counseling services, speech-language pathology, therapeutic recreation, psychiatric services for diagnostic and evaluation purposes, parent counseling and training, school health services, and social work services in schools (Individuals with Disabilities Education Improvement Act, 2004; Kataoka et al., 2009).

In 2004, the IDEA was reauthorized to incorporate amendments that included early intervention services to prevent the progression of future behavioral health disorders (Kataoka, Rowan, & Hoagwood, 2009). The new legislation, entitled the Individuals with Disabilities in Education Improvement Act (IDEIA), allocated funding for research-based, behavioral health

programs. It promoted evidence-based interventions under a three-tiered framework called Response to Intervention (RtI) which attempts to provide educational and behavioral health interventions to children in terms of universal, selective and indicated program levels (IDEIA, 2004).

Response to Intervention

Response to Intervention (RtI) is a framework for schools to integrate mental health into the curriculum and identify youth who are in need of special education, are emotionally disturbed or are in need of mental health services (Gresham, 2005). The premise of Response to Intervention (RtI) is that all children will receive social skills education. This programming may include promotion of positive peer relations, emotional regulation, emotional awareness of others, problem solving, and managing interpersonal conflict (January, Casey, & Paulson, 2011; LeCroy, 2008).

The RtI framework's three tiers of programming include: universal, selective and indicated interventions. Universal interventions are delivered to all students in a school system or district and teach general social skills. Selective programs are generally more intensive and target youth who are considered at a greater risk for mental health issues and are not responding to universal programs. These interventions usually are conducted in small groups and focus on more intensive social skills interventions. Indicated interventions are the most intensive and target youth with the most severe behavioral or mental health issues and many of these students also receive more intense individualized mental health services (Atkins, Graczyk, Frazier, & Abdul-Adil, 2003; Gresham, 2005). Utilizing this framework, universal post-disaster programs attend to all children in a school and are more educational than clinical. The following case

describes a universal school-based intervention, the Journey of Hope, geared towards building protective factors and increasing coping skills among children affected by a natural disaster.

The Case

Background of the Program

The JoH was originally created in response to a gang fight in 2007 at a New Orleans middle school. The fights were associated with the on-going distress children were experiencing from Hurricane Katrina, a category three hurricane that struck the gulf coast of the United States in 2005. Many of the children had lost their homes, communities, and family members due to this storm. In response, a crisis counselor from the district contacted Save the Children (SC), an international organization involved in disaster recovery efforts. It was during that time that social workers from SC realized there was a gap in services for many of the children. In the initial aftermath of the storm, the city was inundated with agencies that provided mental health programming, however, within a couple of years those programs were no longer available to students because of cuts in funding and the perspective that the effects of Hurricane Katrina were over. While the physical storm may have passed, the city was still in the process of rebuilding and many of the children were still experiencing emotional difficulties associated with the recovery from the traumatizing event.

In the absence of available programming, social workers at SC participated in discussion groups with the children to identify the general social and emotional needs they were experiencing. From those discussions, the Journey of Hope was developed.

The Journey of Hope

Finalized in 2009, the JoH intervention includes a set of three developmentally appropriate manuals that address common emotions children experience after disasters. The

intervention consists of 8 1-hour sessions which are delivered 1-2 times a week focus on interactive learning to build coping skills among youth who have experienced a disaster. Topics that are discussed in the program include: safety, fear, anxiety, anger, grief, bullying, self-esteem and self-efficacy. During each session the topic is introduced followed by a discussion around the emotion, a cooperative game, a literacy component, an art based activity and a mindfulness closing circle.

The child-centered approach of the JoH empowers children to have a voice on their personal experience with disaster related emotions such as anxiety, grief, anger and aggression (Powell, 2011). The facilitators provide psycho-education such as common reactions to various emotions, and information about positive coping strategies. By employing social cognitive techniques the intervention stresses observational learning of positive coping behaviors through interactions with peers and the facilitators utilizing a holistic approach of discussion, art and cooperative games (Bandura, 1977). The participants are then able to mold their own positive coping techniques (e.g. how to effectively express feelings of anger) and learn coping mechanisms through other group members (Wadsworth et al., 2009). The JoH also attempts to help children and adolescents enhance protective factors such as positive internal (e.g. stress management, perceived social support) and external supports (e.g. friends, family, community members) to help process their feelings (Masten & Obradovic, 2006; Stevenson & Zimmerman, 2005).

A unique quality of the JoH program is its broad-based applicability to young people. Given the general emotions discussed in the program, the intervention is universally appropriate for all students. Considering that many of the youth who participate in the JoH have been exposed to a disaster, the program is facilitated by social workers who are equipped to respond to

those who may exhibit extreme distress and need to be referred to more intensive therapeutic interventions.

The Journey of Hope has expanded to a number of cities in need of post-disaster interventions such as in Christchurch, New Zealand after a 6.3 magnitude earthquake, in Tuscaloosa, Alabama and Moore, Oklahoma after a series of tornados in both areas, and in New York City and New Jersey after a hurricane. This case study is part of a larger research project that was conducted in 2011, after an E-4 tornado struck Tuscaloosa, Alabama devastating the city (NASA, 2011). In response to the tornado, SC collaborated with Tuscaloosa city schools to provide the Journey of Hope programming to students.

Setting and Methods

The qualitative interviews, which employed an instrumental case study approach, explored the impact of the Journey of Hope intervention on children who experienced a tornado that struck Tuscaloosa, Alabama in the spring of 2011. The instrumental case study is defined by Creswell (2007) as a method that examines an issue through one or more "cases within a bounded system" (Creswell, 2007 p. 73). Case studies are often used in program evaluations to explore, explain or describe events in the contexts in which they take place (Yin, 1994), and offer an understanding about strengths or gaps that may exist in the intervention (Crowe et al., 2011).

The epistemological roots of this case study are interpretivist as it aims to identify individual and shared social meanings through exploring the case from different perspectives (Stake, 1995). This research sought to understand each individual child participant, social workers, and facilitators subjective experience, but also took into account the shared meanings between the different study participants.

In order to complete the instrumental case study approach, the researchers employed the following steps as suggested by Stake (1995): (1) defining the case, (2) selecting the cases, (3) collecting the data, and (4) analyzing, interpreting and reporting the data. The research questions were based on the objectives of the Journey of Hope intervention, literature on post-disaster mental health issues children experience, and defining which groups were relevant for the qualitative interviews.

By defining the case, the study sought to determine the extent to which participation in the Journey of Hope impacted coping strategies and affect recognition/regulation and how participation affected participating children's ability to understand and process emotions.

Sample

Following approval from the principal investigator's University Institutional Review Board, children in Tuscaloosa, Alabama were recruited for participation. Inclusion criteria included: (1) children received parental consent, (2) children provided assent, and (3) children participated in the Journey of Hope program in the fall of 2011. Those who took part in the Journey of Hope in the fall of 2011 were eligible to participate in the interviews if recommended by the school social workers.

Three schools were included in this study due to their location in the highest impact areas of the tornado: one school was completely destroyed, two were damaged and all of the schools included students who lived in areas directly affected by the tornado. The interviews were completed in January and February, 2012. A convenience sample of all the school social workers who had experienced the JoH in their school and facilitators who implemented the program were also recruited to participate and provided consent to take part in the study. There

was one child who did not to take part in the interview after recruitment and none of the social workers or facilitators refused to be interviewed.

The research team consisted of three University of Texas qualitative researchers engaged specifically for this project. The interviews and focus groups were conducted with multiple sources including with participants, school social workers and facilitators of the intervention. This allowed for the researchers to examine the JoH from different perspectives and to establish a holistic view of the intervention (Crowe et al., 2011; Stake, 1995).

The sample consisted of 30 students between 3rd and 6th grade who participated in the Journey of Hope intervention in the fall of 2011(5 focus groups of 4 and 10 individual interviews), 14 facilitators (2 focus groups of 3 and 8 individual interviews), and 5 (individual interviews) school social workers from the schools that received the JoH. The age of the child participants ranged from 8-12 years of age (mean=9.4years). The majority of the participants were African-American (*n*=26) and most were female (*n*=18).

The interview schedule was semi-structured followed with further probes of participants' responses. The interview guide was adapted from a previous study completed in 2009 by the research team based on their experience and knowledge of the Journey of Hope curricula and the literature on children/adolescents, trauma, loss, and coping. All of the questions and probes were open-ended to elicit the participants' beliefs, thoughts, and experiences in their own words. The interviewers were particularly careful not to use labels and descriptors that might lead or bias the responses.

The evaluative inquiries for the child participants revolved around the following: (1) what the students learned in the group, (2) what they felt was most and least beneficial from participation in the JoH, (3) what was the most important emotion discussed in the group, and (4)

were there any feelings for which they still had difficulty coping. Related questions were asked of the social workers and facilitators, including: (1) What skills participants gained from participation in the JoH, (2) What kind of issues the children were exhibiting post-disaster, (3) How effective was the program in addressing those issues, and (4) what was the overall impact of the program? See Table 1 for a full description.

Analysis

The interviews and focus groups were tape recorded and transcribed by research assistants designated to the project. The analysis of the transcribed data involved the process of coding statements to elicit patterns and themes in the data. The coding included developing themes and codes into subcategories reflecting the participants' conditions, interactions, strategies, consequences, styles while moving to increased specificity (Lofland & Lofland, 1995; Strauss, 1987). Ultimately, themes were identified by ideas that occurred repeatedly.

N-Vivo software was utilized as well as traditional manual coding when analyzing the data. The N-Vivo program, used to aid in the organization and analysis of the data, involves the coding of the data in "tree structures" at increasingly integrative levels. It also allows for specific word searches, juxtapositions, and frequency of words or phrases. The combination of computer and traditional manual coding allowed for systematic and efficient analysis as well as time to reflect and think about the connections and themes. Even when using the computer as a means for analyzing qualitative data, the process is both creative and mechanical. Richards and Richards (1994) make the distinction between "textual level operations" (e.g., moving of the data) which are done by the computer, such as retrieving codes, and "conceptual level operations" (development of themes) done by the person. Ultimately, the researcher builds relations between the data and the themes.

Coding reliability was established by two researchers independently coding the participant, social worker and facilitator interviews; this combined effort generated 13 broad initial codes which included: games, feelings, natural disasters, drawing, bullying, safety, learning, anger, friends, trust, peer groups, learning about self, and sadness. The researchers then conducted more focused coding. The N-Vivo coding system was used to make the broad codes more specific. Next, codes were evaluated to see which were used more than others, less productive codes were omitted, and the most resonant ones were selected. Codes were collapsed, supported or dropped. Ultimately, the coding procedure proceeded until core categories emerged to the point of saturation (i.e., where further analysis does not elicit new themes).

Results

Those who participated in this study were actively involved in the research – they welcomed the opportunity to share their perspectives about JoH. They were attentive, involved in the inquiry process, and, in varied degrees, willing to share their experience of the JoH. The following findings emerge from the qualitative individual interviews and focus groups:

- Children expressed feeling better through coping mechanisms they learned from JoH including self-soothing, calming in moments of anger, talking with others about painful feelings (esp. sadness and grief), and choosing not to bully or learning how not to be bullied.
- Workers saw behavioral improvements such as healthier expressions of emotion, augmented verbalization of thoughts and feelings, and students utilizing more effective coping skills (such as talking rather than acting out angrily).

Specific themes from the participants, social worker and facilitator interviews indicated children were better able to articulate their feelings, process grief, felt the group was a safe place for self-expression, learned how to regulate emotions such as anger and aggression and gained knowledge on how to handle bullying behaviors in their school. The following subtitled sections synthesize the themes that emerged from the qualitative analyses.

Affect Regulation

Child participants. Affect regulation was expressed during the interviews with the youth, social workers, and facilitators. One child participant reflected, "I used to have really bad feelings before, but when the group happened I learned how to cope with some of it." The participants described that the group helped them learn there are a variety of reactions to emotions, and that there are both healthy and unhealthy ways to express them.

One of the most notable feelings that children described regarding affect regulation was anger management. They expressed relief at learning ways to avoid getting "out of control." For instance one child stated:

> You learn stuff, but you also have fun while you are learning and it's good to help people who get out of control with their anger like me. It helped me to learn how to control it more better (sic) and that's why I liked it (the group).

Other child participants described activities and the techniques they learned to help them regulate their anger such as being able to count down from ten to de-escalate, identifying what level of anger they were experiencing by using an "anger meter" and leaving situations where their reactions may escalate into a conflict. One participant mentioned she learned how to regulate anger:

> I was almost to my breaking point where I just couldn't defy the entire classroom and then I walked out the door, and that helped me to cope with (anger) and calm myself down before I got too mad and do something that I had done before.

Students also identified the change in the way they managed their emotions such as anger from before to after participation in the group. One comment regarding the change in responding to conflict situations included: "Before I started this program I was always mad and getting on people's nerves and now I do that less and I'm like more happy now."

A second participant mentioned:

> I used to like just snap. Like let's say I'd get mad and then be mad over the whole weekend when someone would mess with me and I'd just snap on them but now I learned how to calm down my anger.

Social workers and facilitators. In addition to the participants expressing their increased ability to regulate their emotions in the group, both the social workers and facilitators noted student's increased ability to express their emotions after participation in the JoH. The facilitators stated that helping the children positively express their emotions was a core component of the program. For example one facilitator mentioned that discussions in the program helped the participants:

> Really identify what it is that they're feeling instead of displaying it in an angry way, you know, letting it come out as rage or anger or aggression or whatever, then they can better cope with that-that, you know, emotion.

The school social workers also stated that they saw a change in the way the participants interacted after they took part in the program, and that they learned how to verbalize their feelings rather than act or fight when faced with a conflict. One social worker stated:

> I have noticed that they-they now can verbalize what they need to do. They don't always do it, but maybe more that they can verbalize and tell you what they should have done differently.

Grief

Child participants. Another theme was that after involvement in the JoH participants were more equipped to process and manage feelings of sadness or grief. When asked about the most important topic discussed in the group one participant stated:

> With me it was the depression thing, because I am a really sensitive person and the smallest things get me down and everything….I learned how to get through everything and how to control how far the depression goes…

Participants also discussed specific strategies they learned to handle their grief or sadness. Some strategies the facilitators introduced in the group included: talking to an adult, writing it down in a journal, talking to someone you trust or saying what you are sad about out loud (Holleran Steiker & Powell, 2012). One child mentioned that he learned sadness and anger are not mutually exclusive and he sometimes experiences both emotions at the same time. Furthermore, he discussed new coping strategies: "When you are sad you can breathe in and out and you can just punch a pillow and try to get the anger out."

Social workers and facilitators. Processing and normalizing sadness and grief was also a prominent theme that social workers and facilitators expressed when asked about what children gained from the JoH. One facilitator stated: "They were able to realize that everyone has these emotions….and it's okay to have these emotions, everybody does". The social workers also discussed that the children were able to relate sadness with the losses they experienced during and after the tornado. A social worker stated: "they could really relate with the grief issue….you know like when they had family members or a grandparent die."

Psycho-education Skill Building

Child participants. Psycho-education skill building was also a central theme associated with participation in the JoH. As summarized by a child participant, "We learned about bullying,

sadness, happiness and feelings. That was my favorite part, feelings." Prior to JoH, there was not an explicit focus on socio-emotional skills in the schools except in the cases of behavioral problems (i.e. anger management). JoH, however, uses games, books, parachute activities, and other mechanisms engaging to children as a way to teach them how to understand emotional reactions and their subsequent responses. During the research, participants consistently stated that they learned about different emotions through discussion and activities. When re-calling what she did in the group one participant stated:

> We talked about like different subjects for different sessions. Like one day we were talking about fear, another day we talked about safety, and another day we was talking about anger and how to cope with those, uh with skills. And we did activities to help us understand more on the subject and at the end of the day we would like discuss what we learned …

Another participant noted that through the JoH she learned how to process different emotions. For example:

> We talked about like different things like….one thing was your anger level, like you have your risk, you are a little agitated, your uh anger, and we learned that it shows when you are furious and how to bring it down……..we also talked about stuff like let's say your cousin was moving or something and then you would go through shock first, I think it was anger next, then sadness then you would start to accept it, and then go back to your normal life.

Social workers and facilitators. It was also noted that psycho-educational skills taught in the JoH were transferable to the real-life setting outside of the group. For example, a facilitator stated: "I believe that they gained skills that they'll use later as they continue in school, and probably they gained skills for um, using at home and in the community as well." Social workers stated in relation to handling adverse situations that the children were now able to "deal with the difficult people in their life", and that children gained the ability to "cope with um, what they are living with (outside of school)".

Self-Expression

Child participants. Self-expression was also considered an important part of the JoH. Children mentioned they felt a level of comfort in the group which enabled them to be able to express and process how they were feeling, as reflected in this statement from a child participant: *"*we got to express our feelings and we got to trust that everything we said would stay in the group and it wouldn't go out, and none of it ever did…..there was a lot of trust in the group." Another child stated that self-expression translated outside of the group:

> I learned that not to let anyone get you down and do your always, and I mean like I dress really weird and I have like my own thing, and everyone kind of bashes on it, but I'm just like, "Hey I'm not gonna let that bother me. I'm gonna be myself. I'm gonna express how I feel and everything." And I've just gotten to that point where, "This is me, and I don't care what other people think."

Participants also mentioned other ways they express their emotions outside of the group. They mentioned talking out their feelings with others or expressing them through other mediums such as journaling or drawing. One participant stated:

> We talked about different ways you can be safe and, um, how your could keep like when you—how you feel sometimes, how your feel like you can let it out sometimes you feel better. So we talked about different ways (to express emotions) like you could have a diary or you could just talk it out to yourself or stuff like that, or you could call a friend and talk with them.

Social workers and facilitators. Both facilitators and social workers explained that the group was a safe place for the children to "relax" and "let their worries or fears just kind of go out of the window". One facilitator said that participation in JoH was an outlet for children to verbalize their experiences:

> We've given them permission to be able to verbalize and to express themselves in a different way I think opens up a new opportunity for them, opportunity for them to begin to develop in a different way.

The school social workers also explained that feeling like they were in a safe setting for self-expression was valuable to the participants. One social worker mentioned:

> I think that's one of the major components to the program itself, and creating a safe environment for the children so they know that it's okay to come talk to someone to express how they feel and that it's not going to be a laughing matter or it's not going be something that everybody's going talk about when they leave the room. Um, so, and I think that they lack that at home, some of them.

Bullying

Child participants. Gaining knowledge about bullying was a final theme expressed by the participants, social workers and facilitators. One participant summarized what they learned about bullying: "We learned that you don't 'posed (sic) to be bullying and we learned how to be nice and self-respect……Don't be mean." In terms of bullying in their school, the participants reflected on the impact, expressed less feelings of isolation about their experiences, and even articulated the reasons people bullied and how they can support those who are victims. Specific feedback regarding bullying behaviors included:

> We learned how to stop bullying and then we said some words. We stood up and we said, "Leave me alone, I'm not having it." We was practicing to a bully and if our friends are getting bullied, it's good to help them out or get help, and we learned it's about the whole group is like the back-up, the person who watched the person who helps, and the bully.

Social workers and facilitators. The facilitators also noted that the participants became proactive about standing up to bullying behaviors. In fact, one of the facilitators mentioned that the discussions and activities in the bullying session assisted in a situation outside of the group:

> We talked about bullying that day and they (two girls from the group) actually went to the counselor, sat down and talked, and their moms came in, um, that next day, um, and, um, and they were able to get with the other girls. They brought it up in session and we stressed-stressed, you know, talking with someone, trying to work it out, and they did go to the counselor.

Discussion

In this case study, participants shared their experiences with the universal post-disaster intervention, Journey of Hope (JoH). The findings from the case study revealed that the children, social workers and facilitators felt that building affect regulation skills was a valuable

component of the JoH. The facilitators, social workers and children explained that participants were better able to express difficult feelings such as anger, and learned positive ways to cope with these emotions. This finding is particularly notable given that behavior issues in children tend to escalate after disaster exposure, and being able to manage emotions such as anger is a protective factor against future mental health issues (Lodewijks, de Ruiter, & Doreleijers, 2010; Masten & Osofsky, 2010; Sapienza & Masten, 2011). There has also been little research on post-disaster universal interventions effect on helping children gain these emotional regulatory skills; therefore, this finding can help inform future studies on universally based programs that build socio-emotional skills (La Greca & Silverman, 2009; Neria et al., 2008; Pfefferbaum, Varma, Nitiéma, & Newman, 2014; Silverman et al., 2008).

Many of the children recalled the importance of learning about different feelings discussed in the JoH. Psycho-education is used widely in post-disaster settings to help individuals learn about common reactions in order to help normalize their emotions (Pfefferbaum et al., 2014). This approach is often employed because it can help empower individuals with knowledge about normal reactions to trauma, but also serves as a screening mechanism for those who are experiencing more intensive psychological symptoms (Young, Ruzek, Wong, Salzer, & Naturale, 2006). Interventions that target psycho-educational skill building have also been shown to reduce risk for future mental health pathology (Grant et al., 2003). By exploring their emotions, the intervention appeared to help the child participants not only understand their feelings, but express them more effectively.

In terms of learning about self-expression, the children who participated stated they were able to express themselves in the group which also translated outside of the JoH sessions. According to Corey, Corey & Corey (2013), in order to facilitate an effective group, it is

essential to create an environment where group members are able to identify and talk about their feelings and experiences. They need to feel that others understand what they are experiencing and connect with other group members (Corey, Corey, & Corey, 2013). When children are able to express themselves and communicate about their feelings they have an increased capacity to cope with the event (Lutz, Hock, & Kang, 2007). Participants, social workers and facilitators all stated self-expression was an important component of the JoH because the children were in a safe place to process their emotions in the group; this transferred to an increased capacity to express their feelings outside of the group. This finding also indicates that the JoH groups served as a microcosm for the students to discuss universal experiences after the disaster in a safe setting.

As expected, children who participated in the JoH expressed that the intervention helped them process emotions of sadness and grief. They were able to do this through talking about losses and learning about common ways people grieve. This is a notable finding considering prevalence rates of depression post-disaster have been estimated to be as high as 30 percent in children and adolescents (Nilamadhab Kar & Bastia, 2006), and programs that address grief and loss can have a lasting effect on children's adaptive functioning (Salloum, Garside, Irwin, Anderson, & Francois, 2009; Wolmer, Laor, Dedeoglu, Siev, & Yazgan, 2005). While there are a variety of therapeutically-based selective/indicated interventions targeted for children who are experiencing grief symptoms, the JoH is, to our knowledge, one of few universal interventions that addresses grief processing (Pfefferbaum et al., 2014).

The most surprising theme of this case study was that the JoH helped child participants cope with bullying in their schools. This is an important finding because when the Journey of Hope was originally created bullying was not part of the curriculum. After the pilot sessions, the

creators realized the need to add this component to the intervention because of the overt bullying behaviors presented in the groups. While some research has explored the incidence of bullying and peer victimization after a disaster, more is needed on the correlation of these behaviors and disaster exposure (Terranova, Boxer, & Morris, 2009). It has been well documented that bullying can have a long-term impact on children's emotional well-being (Arseneault, Bowes, & Shakoor, 2010; Smokowski & Kopasz, 2005; Richard Williams & Alexander, 2009). Children exposed to disasters experience difficulties adjusting to new settings and changes to their home and community; this stress may influence peer interactions (Terranova, Boxer & Morris, 2009). Although the Journey of Hope included only one session that directly discussed bullying, the curriculum takes an interactive approach to teaching cooperative games and promoting healthy peer interaction. This information may have a positive influence on overcoming peer victimization outside of the group. In future studies, the impact of the JoH on coping with bullying experiences should be more closely examined.

Limitations

There are a number of important findings to this study, however, some limitations must be noted. Considering the convenience sampling method, there is possibility of a selection bias towards those who had a favorable view of the intervention. The researchers attempted to correct for a possible selection bias by interviewing a wide variety of students, social workers and facilitators.

Another major limitation was the first author of this article was one of the creators of the intervention; therefore the study may not be free from bias given the researcher's desire to find the JoH a useful worthwhile intervention. To address this, the researcher worked with two other researchers to conduct the interviews and one other coder who were not as involved in the

intervention utilizing thorough qualitative methods to remain as objective as possible and minimize bias. Future research in different settings would help further inform the impact of the JoH.

Conclusion

While there are certainly limitations to this study, this research illuminates the perspective of those that have had the unique experience of surviving a natural disaster. It builds on the knowledge base of social work practitioners and researchers on the value and contributions of a school-based post-disaster curriculum to help youth adapt and cope with the difficulties a disaster can bring. This case study provides evidence of the importance of universal school-based interventions for youth who have experienced a disaster. While there is a breadth of research supporting more intensive indicated interventions for children who are exhibiting mental health symptoms such as PTSD following a disaster, little has been studied on the impact of universal preventive interventions for the wider population in the longer term recovery phase (Silverman et al., 2008). Considering natural disasters have significantly increased over the past twenty years, and recovery can take months to years, it is important to address interventions not only in the immediate aftermath, but also over the longer-term (International Monetary Fund, 2012; Leaning & Guha-Sapir, 2013). While current policies support more intensive indicated interventions for youth with mental health diagnoses, the findings from this study indicate it is worthwhile to examine supportive universal interventions such as the Journey of Hope.

Natural disasters have a powerful impact in which cities, families and children must adjust and recuperate both physically and emotionally. The study reveals that participation in the Journey of Hope intervention helped youth not only gain knowledge on emotional responses

commonly experienced after a disaster, but also understand how to express and process their feelings. The intervention addresses the longer term issues, beyond the emergency first aid and bandages. JoH attends to the most basic and intrinsic needs for safety and security, as well as reactions to powerfully traumatic losses via deaths, dislocation, and varied responses by family members in times of acute stress (e.g., depression, aggression, anger). This research begins to examine the impact of a universal post-disaster program, however further research is needed in this area.

Table 5: Interview Guide

Participant	**Semi-Structured Interview Questions**
Children grades 3-5	1. What did you do in the group? *Probe-What did you talk about?* 2. What did you like about the group/program? *Probe-What's your favorite activity?* *Probe-What's your favorite topic?* 3. What didn't you like about it? 5. Do you think anyone else should participate in this group? *Probe*-Do you think any of your friends or family should participate in this program? *Probe-(If so) Why do you think others should participate in the program?* 6. What did you learn? *Probe: What, if anything, did you learn about yourself?* *Probe: What did you learn about other group members?* 7. Which topic was the most important to you? *Probe: Are there any feelings you still have trouble with, if so can you talk about it?* 8. How comfortable did you feel sharing in the group? 9. Was there anything you didn't talk about that you think would have helped you? 10. What if anything can be improved about the Journey of Hope program?
School Social Workers	1. Why did you or your school want the program? 2. Do you know how many students have participated in this past year? *(How many students in the school total? Age, gender?) How were the participants identified/selected?* 3. How would you describe the program? 4. What are the issues that you are facing in your school and how do you think the program is addressing them? 5. What impact do you think the program has had? *(probe: on the Individual kids, on their classmates the school?)* 6. Ask about the following if the interviewee doesn't touch on them: - What have the kids learned / what skills have they acquired? - Do you notice any changes within the participants in terms of themselves or how they interact with others? 7. Do you think that impact will last, despite this being a short program? *(probe: what kind of follow-up is happening, or you think could happen?)* 8. What has the reaction been from teachers in your school to the program? Other students? Parents?
Facilitators	1. Which of the programs have you facilitated? 2. In how many schools have you worked over the past year? 3. What issues do you think the kids are facing in their schools and do you think the program is addressing those issues? 4. What impact do you think the program has had on the kids? Probe: Can you provide any examples or stories? 5. Over the course of the program, have you noticed any changes within the participants in terms of themselves or how they interact with others? Probe-Can you give any examples? 6. Is there anything else you would like to share about the curriculum and your experience running the programs in Tuscaloosa City Schools?

CHAPTER VII

Discussion and Conclusion

It is well established that disaster exposure can impact a child's emotional well-being, and schools are one of the most accessible venues for providing services in the immediate phase and throughout longer term recovery (Jaycox, 2006; Kassam-Adams et al., 2012; Kataoka et al., 2009; Neria, Nandi, & Galea, 2008). As described in the previous chapters, school-based interventions focused on building protective factors and enhancing coping can ease the immediate emotional impact of a disaster and may aid in prevention of future disaster-related mental health symptoms.

The literature to date has focused primarily on interventions targeting youth who are diagnosed with post disaster symptoms such as PTSD, depression or anxiety-related disorders. There is a clear need for more broadly focused programs to help all disaster-affected children cope with the event and its resulting turmoil, as many children either have not been diagnosed due to lack of care or do not meet the criteria for a diagnosis are still in need of emotional support services (Evans & Oehler-Stinnett, 2006; Neria et al., 2008; Silverman et al., 2008). To address the gaps in mental health services for children post-disaster, this dissertation involved conceptualizing, implementing and evaluating a universal school-based intervention known as "Journey of Hope" for child survivors of a category 3 hurricane that devastated New Orleans, LA in 2005 and an E-4 tornado that struck Tuscaloosa, AL in 2011.

The Journey of Hope: Summary of Research Findings and Significance

Chapter IV: The Journey of Hope: A Group Work Intervention for Children Who Have Experienced a Collective Trauma

Summary of findings. Chapter IV presents the Journey of Hope as a broad-based group work intervention for children and early adolescents who have experienced a collective trauma such as a natural disaster. The conceptual framework of the Journey of Hope was presented based on developmentally appropriate strategies and group work techniques such as: the use of rituals, experiential learning, group problem solving and reflective learning. Vignettes from sessions on safety, coping with stress, and building self-esteem were explained, with a depiction of group interaction and participation.

Study significance. This article fills a gap in the literature by reviewing theoretical concepts applicable to a wide population of young people affected by a disaster. The discussion supports the literature by presenting a broad-based approach to group work in post-disaster settings. While there is a large body of literature supporting therapeutic-based group work interventions for children with mental health diagnoses, there is scant information on more widely accessible programs such as the JoH (Cohen, Mannarino, & Iyengar, 2011; A Salloum & Overstreet, 2008). This article has direct implications for the field of post-disaster mental health because it supports a universal group work intervention - an approach often left out of the literature. Moreover, the group work strategy of the JoH provides the readers with a mold for designing and implementing other universally appropriate post-disaster group work interventions.

Chapter V: Enhancing Coping and Supporting Protective Factors After a Disaster: Findings from a Quasi-experimental Study

Summary of findings. The second article, presented in chapter V, examined the contribution of the Journey of Hope through a quasi-experimental research design implemented after a tornado in Tuscaloosa, Alabama. This study employed a pre and post-test waitlist control design measuring risk and protective factors and coping skills. Findings from the quasi-experimental study indicated that children who participated in the JoH showed an increase in two protective factors; coping and pro-social behaviors.

Study significance. While there is a growing body of experimental studies that support universal interventions, this is one of few that examines resilience factors rather than mental health disorders (Balaban, 2006; Pfefferbaum, Varma, Nitiéma, & Newman, 2014). The findings are particularly relevant considering children with active coping strategies and pro-social behaviors tend to have less mental health symptomology (Clarke, 2006; Evans & Oehler-Stinnett, 2006).

By incorporating resilience measures, the authors were able to examine the impact of the intervention through the lens of post-traumatic growth rather than focusing on mental health issues such as PTSD, depression or anxiety. This is a crucial but minimally researched area of post disaster recovery (Cryder, Kilmer, Tedeschi, & Calhoun, 2006; Hawkins & Radcliffe, 2006). While many children will experience some form of distress after a disaster, most will bounce-back from the event given they have supports such as: a stable school and home environment and positive adult and peer relationships (Sapienza & Masten, 2011). This study is significant given it is one of few that examines positive outcomes such as coping rather than

mental health diagnoses, thereby presenting a different approach to measuring universal post-disaster interventions.

Chapter VI: Supporting Children after a Disaster: A Case Study of a Universal School-Based Intervention

Summary of findings. The third article, presented in chapter VI, examined the JoH through a case study with children, social workers and program facilitators in Tuscaloosa, Alabama. Study participants expressed that the children had increased psycho-educational knowledge, affect regulation, ability to process grief, self-expression and were more equipped to deal with bullying.

Study significance. This article delved into children's experiences participating in the JoH - examining the mechanisms that are most effective and informing future program development. Children mentioned that they "learned how to cope" with difficult emotions, and were able to avoid ways of getting "out of control". Behavior issues in children tend to escalate after disaster exposure, and being able to manage emotions such as anger can guard against future mental health issues (Lodewijks, de Ruiter, & Doreleijers, 2010; Masten & Osofsky, 2010; Sapienza & Masten, 2011). Considering trauma exposure is directly related to long term difficulties with emotional regulation this outcome is critical (La Greca & Silverman, 2009; Neria et al., 2008; Pfefferbaum et al., 2014; Silverman et al., 2008). This finding also informs future studies which may examine how interventions such as the JoH can aid children in regulating and coping with emotions.

Children also expressed an increased understanding about emotions related to disaster exposure. This was largely a result of the psycho-educational component, a technique widely used in post-disaster interventions to empower individuals by providing knowledge about normal reactions to trauma (Grant et al., 2003). This finding has significance for the further

development and expansion of the psycho-educational component of the Journey of Hope and other broad-based post-disaster interventions.

In terms of processing emotions, participants, social workers and facilitators stated that self-expression was an important part of the intervention. A number of studies support that when children are able to communicate about their feelings they have an increased capacity to cope with the event (Fivush, Marin, Crawford, Reynolds, & Brewin, 2007; Giannopoulou, Dikaiakou, & Yule, 2006; Rowe & Liddle, 2008). This finding is significant because it reveals that the general population of children affected by disasters value having the ability to communicate in a group setting about their feelings and experiences. Furthermore, it initiates a discussion on the importance of self-expression in universal interventions - a topic that should be examined in future studies.

General Limitations

Quantitative Study

While this dissertation employed a comprehensive mixed methods approach to examining the impact of the JoH, some limitations must be noted. The small sample size was one of the prominent limitations of the quantitative article. Although there are practical aspects to small sample sizes such as the feasibility of gaining participants over a short timeframe, there are a number of weaknesses. Small samples are vulnerable for type 2 errors which fail to detect a significant change in the dependent variable from pre to post measurement (Hackshaw, 2008). This limitation happens often in post-disaster research as communities are often in the process of rebuilding and are still in a state of disorganization, therefore, smaller samples and high attrition are common (La Greca, 2003). This was a predominant methodological issue in the quantitative study because a larger sample may have impacted the level of significance.

While the significant findings indicated the JoH aided in building protective factors, the dependent variables measuring risk showed no effect, which may have been due to the small sample. Future studies with a larger sample would enhance the address this methodological weakness and strengthen the results.

Another limitation was the short duration of the research. The quantitative article only examined two time points (baseline and post-test) and did not look at the results during an extended follow-up period (i.e. 3-6 months) post intervention. In addition to a larger sample, follow-up measures would determine the sustainability of dependent variables (Rubin & Babbie, 2005).

The research was also confined to one geographic location limiting the external validity of the study. Because of the limited context in which the study was conducted it is difficult to ascertain the impact of the JoH in other contexts. Future studies examining the program in a variety of geographical regions and cultures would expand the breadth of knowledge on the impact and relevance of the JoH.

The lack of disaster specific standardized measures may also have implications for the study results considering measures were not specifically developed for disaster-related issues, only general coping skills and overall emotional functioning. The gap of sensitive and accurate measures to assess disaster-related coping and general difficulties in children is common in research that focuses on natural disasters (Roberts & Everly, 2006). While there are a number of validated posttraumatic stress scales, there are few that measure other disaster related symptoms such as post-disaster coping, peer relations, and coping with emotions such as anger, grief and stress (Roberts & Everly, 2006). Not only is this measurement issue a challenge in the current study, but applies to the wider field of disaster-based research. Most disaster research measures

focus on PTSD and are not oriented towards more general coping and resilience (Balaban, 2006; Hawkins & Radcliffe, 2006). This may be an area for future study given the absence in measures of resilience and protective behaviors such as peer interactions, coping, and pro-social peer and school interactions post-disaster.

Qualitative Study

As stated in chapter VI, The qualitative study also had a number of limitations including a possible selection bias, researcher bias and, similar to the quantitative study, lack of generalizability. The convenience sampling method made it possible for a selection bias towards those who had a favorable view of the intervention. While the researchers attempted to correct for this bias through interviews with a wide variety of students, social workers and facilitators, those who agreed to participate may have had done so because of their positive experience with the program.

Another limitation was that the Principal Investigator was one of the creators of the intervention; therefore the study may not be free from bias given the researcher's desire to find the JoH a useful worthwhile intervention. To address this, two other researchers conducted the interviews and one other coder to minimize bias. A final limitation, similar to the quantitative article, is the lack of generalizability given that it was only conducted in one geographical region. Future research in different settings, contexts and with different languages would help further inform the development and impact of the program.

Implications for Practice

Strengths-Based Techniques

Findings from this dissertation have direct implications for social work practice in post-disaster settings. First, it is important for practitioners to address not only pathologies associated

with disasters, but also incorporate strengths-based approaches. By employing a strengths-based model practitioners can focus on the capacities and competencies of children rather than mental health disorders such as PTSD (Saleeby, 1996). The JoH aims to help children recognize their innate strengths by teaching them coping strategies to enhance their resilience following a traumatic event. Whether strengths are internal (e.g. emotion regulation, problem solving) or external (e.g. family, friends), the intervention aims to help children and early adolescents build their capacity to cope with the event. In future post-disaster situations, practitioners should focus on children's strengths and resources which can build their capacity to cope with both the current and future disasters.

Enhancing Coping

Most interventions directly address the disaster, yet many children will experience other difficulties related to recovery from the traumatizing event (e.g. adapting to a new school, changing homes, living in multiple family households) (Richard Williams & Alexander, 2009; Williams, Alexander, Bolsover, & Bakke, 2008). Addressing children's existing emotions enables practitioners to frame discussions around their relevant experiences rather than directly correlating their emotions to the event (Barwick et al., 2005). Thus, children are able to address their experiences with feelings such as grief, anger and aggression, and explore active coping strategies to overcome negative responses (Masten & Obradovic, 2008; Sapienza & Masten, 2011). Practitioners should create safe settings for children to process these emotions and guide discussions on adaptive coping to enhance their ability to process and overcome the event. Considering the link between poor coping after disaster and long term pathology, this is a crucial area for practitioner training.

Group Work Techniques

It is also appropriate to consider group work techniques when designing and implementing broad-based school interventions. Findings from the qualitative study clearly indicated that the participants greatly valued their ability for self-expression in a safe group setting. Group work in post-disaster settings allows young people to learn from each other and normalize emotions through discussion of shared experiences (Cohen et al., 2009; Fothergill & Peek, 2004). Specific group work techniques of the JoH, which are applicable to other group settings, include the use of rituals to enhance cohesiveness, experiential learning for participants to internalize knowledge, group problem solving to normalize emotions, and reflective learning to help children gain insight on their own learning process (Grant, Kinnersley, Metcalf, Pill, & Houston, 2006; Malekoff, 2004; Silberman, 2007). These findings translate beyond the JoH considering effective group work in post-disaster settings is a vital skill set for practitioners.

Bullying

The concept of bullying supports a growing body of literature suggesting peer victimization should be addressed in post-disaster settings (Terranova, Boxer, & Morris, 2009). As practitioners, it is important to address bullying behaviors because of the potential long-term impact on children (Terranova et al., 2009). Children exposed to disasters experience difficulties including adjusting to new settings and changes to their home and community which may influence peer interactions (Terranova, Boxer & Morris, 2009). Recognizing the omnipresence of bullying in schools post-disaster may be an important new finding from the current research and inform future studies. After a disaster, practitioners should assess the level of peer victimization and become familiar with anti-bullying interventions and strategies to mitigate these behaviors.

Grief

A large body of literature supports grief-based post disaster interventions (Alison Salloum, Garside, Irwin, Anderson, & Francois, 2009; Wolmer, Laor, Dedeoglu, Siev, & Yazgan, 2005). Most of these interventions, however, are targeted towards children who are diagnosed with mental health disorders. The JoH is one of few universal interventions that addresses grief processing (Pfefferbaum et al., 2014). This finding indicates that incorporating this topic is relevant for the wider population of young people who have experienced a disaster. Practitioners should recognize that in post disaster settings, discussions around coping with grief may be appropriate for a broad population of young people. This outcome also may inform future universal interventions on incorporation of grief into the curricula.

Policy Implications

Federal Policies

This dissertation has direct implications for integrating universally appropriate post-disaster interventions into school mental health policy. As stated in the introduction and article 3, there is policy supporting school-based mental health (IDEIA), however, no disaster specific policies. Considering schools are one of the most common settings for children and youth to receive post-disaster mental health care it is important for policies to support programming. One policy consideration is integrating a clause for disasters into the IDEIA. As recommended by the Presidents New Freedom Commission report, schools should focus on expanding school mental health programs and incorporate universal mental health screening. Furthermore, the reauthorization of the IDEIA in 2004 recommended that schools include early intervening services to prevent future behavioral health disorders (Kataoka, Rowan, & Hoagwood, 2009).

From the New Freedom Commission report and reauthorization of the IDEIA there has been move towards a more comprehensive approach to school-based mental health services (Dean et al., 2008). This includes the Response to Intervention Framework, which addresses three tiers of programming: universal, selective and indicated. As stated in the introduction, universal interventions are delivered to all students in a school system or district and teach general social skills. Selective programs are generally more intensive and target youth who are considered at a greater risk for mental health issues and are not responding to universal programs. This tiered framework therefore attempts to provide services to all children rather than only to those with severe emotional disturbances.

While the IDEIA has targeted the aggregate of children and adolescents in schools, there is still a gap in evidence-based universally appropriate programming for children after a disaster. It is well established that universal interventions can act as both a prevention measure and screening tool for those with more serious mental health issues (Individuals with Disabilities Education Improvement Act, 2004). It is therefore essential to make universal programming available to all students who have experienced a disaster. While policy has discussed the importance of universal programming for children, the literature suggests many programs are still focused on symptomology such as PTSD (Neria et al., 2008). These types of interventions are limiting because they only target reduction of mental health symptoms and do not address more generalized emotions children may experience. Future federal policy should consider support for research and implementation of universal post-disaster interventions.

School Based Policies

A second policy consideration is towards equipping schools with the capacity to provide post-disaster universal interventions. By not offering mental health programming to all children

and youth it is not only difficult for students to re-adjust to the post-disaster setting, but those with more critical mental health needs may not be screened (Masten & Narayan, 2012; Pfefferbaum et al., 2014).

After a disaster, it can be difficult to implement universal mental health programs. Schools are often in the midst of trying to rebuild and catch students up on educational time; therefore, mental health programming may not be seen as a priority. Many teachers encounter the dual role of catching students up academically, while also nurturing those who are distressed (Madrid, Grant, Reilly, & Redlener, 2006). Schools must also have venues and support staff to provide these services. Many schools are also limited on space and personnel, thus making it difficult to provide services other than academic learning (Madrid & Grant, 2008; Madrid et al., 2006). A growing body of evidence suggests universal interventions are appropriate to help children re-adjust to school after a disaster (Pfefferbaum et al., 2014). It is therefore crucial to equip schools with the capacity to provide these interventions. This can include the addition of in-school mental health professionals, allocating space for mental health services to take place, and allotting time in the school-day for programming.

Implications for Research

Considering the lack of comprehensive research on post-disaster universal school-based programming this dissertation sought to identify how an intervention such as the Journey of Hope may aid children in recovery from current and future disasters. While there were considerations for policy and direct practice, there are also a number of implications for future research.

Universal Intervention Structure

A recent systematic review of universal post-disaster interventions found that there is not one specific approach that can be attributed to positive outcomes in children (Pfefferbaum et al., 2014). Additionally, most universal interventions rely on cognitive behavioral techniques similar to programs created for children with disaster related mental health diagnoses such as PTSD. Future studies should continue to research universal programs and identify the similarities and differences in more broad-based programs versus those which were designed to address mental health symptomology (Pfefferbaum et al., 2014).

Universal Intervention Research

There has been very little research examining the effectiveness of universal school-based interventions after a disaster (Silverman et al., 2008). This gap extends to a lack in knowledge about the best practices and protocol in designing and delivering universal programs. Ample research exists on programming for children who are exhibiting or have been diagnosed with mental health issues (Kar & Bastia, 2006; Wethington et al., 2008). Many of these interventions employ cognitive behavioral therapeutic techniques and focus on processing the event (Silverman et al., 2008). Given the lack of research on universal interventions, there is no clear protocol for designing and implementing more widely accessible post-disaster programs. While this dissertation builds to the limited research that has been completed on universal interventions, more studies are needed to determine the most appropriate approach and mode of delivery.

Resilience Measures

Most studies examining universal interventions have measured mental health symptomology such as post-traumatic stress disorder, anxiety and depression (Pfefferbaum et al., 2014). By focusing only on the negative effects of disasters, researchers are unable to identify

what factors lead to resilience and recovery (Balaban, 2006). This is in part due to the lack of tools measuring post-traumatic growth such as adaptive coping and protective factors (Hawkins & Radcliffe, 2006). Given the absence of validated instruments, it is difficult to ascertain the most appropriate methods to measure resilience (Hawkins & Radcliffe, 2006). Future research should focus on not only on mental health pathology, but also post-traumatic growth in children and adolescents (Balaban, 2006). These measures should be specific to a disaster context and may include an examination of protective factors (e.g. social support, pro-social behaviors, positive peer relationships), and positive coping skills (e.g. problem solving, emotion regulation) which are shown to help aid children during the recovery process (Balaban, 2006; Hawkins & Radcliffe, 2006).

Conclusion

The purpose of this dissertation was to understand the impact of the Journey of Hope, a broad-based intervention designed for children affected by a natural disaster. Specifically, this dissertation examined whether participation in the JoH had an impact on risk and protective factors and coping skills in a post-disaster context.

This dissertation has built upon the limited body of literature that examines universal interventions for children who have experienced a disaster. It has provided a deeper understanding on how the JoH may support a wider audience of children than those with diagnosed mental health disorders. The dissertation took a comprehensive approach to understanding the impact of the intervention. This was accomplished through a conceptual article, a quantitative waitlist control research design, and a qualitative case study. By employing a mixed methods approach an in-depth look at the relationship between participation in the JoH and increased protective and coping capacity was possible.

The results from this dissertation will add to the literature on universal school-based mental health interventions for children and youth post-disaster. While limitations exist, this dissertation begins to examine how the JoH helps children during the post-disaster recovery period. Future research should build on the findings of this dissertation through further examination of the impact of the Journey of Hope on children affected by trauma.

References

American Psychological Association. (2000). *Diagnostic an statistical manual of mental health disorders, fourth edition, text revision (DSM-IV-TR).* Washington, DC: American Psychiatric Association.

Arseneault, L., Bowes, L., & Shakoor, S. (2010). Bullying victimization in youths and mental health problems:'Much ado about nothing'. *Psychological Medicine, 40*(5), 717-729.

Arthur, M., Hawkins, D., Pollard, J., Catalano, R., & Baglioni, A. (2002). Measuring risk and protective factors for use, delinquency, and other adolescent problem behaviors. *Evaluation Review, 26*(6), 575-601. doi: 10.1177/0193841x0202600601

Substance Abuse and Mental Health Services Administration (2012). SAMHSA's National Registry of Evidence-based Programs and Practices, from http://nrepp.samhsa.gov/

Atkins, M., Hoagwood, K., Kutash, K., & Seidman, E. (2010). Toward the integration of education and mental health in schools. *Administration and Policy in Mental Health and Mental Health Services Research, 37*, 40-47.

Atkins, M. S., Graczyk, P. A., Frazier, S. L., & Abdul-Adil, J. (2003). Toward A New Model for Promoting Urban Children's Mental Health: Accessible, Effective, and Sustainable School-Based Mental Health Services. [Article]. *School Psychology Review, 32*(4), 503-514.

Balaban, V. (2006). Psychological assessment of children in disasters and emergencies. *Disasters, 30*(2), 178-198.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, New Jersey: Prentice Hall, Inc.

Bandura, A. (1998). Health promotion from the perspective of social cognitive theory. *Psychology & Health, 13*(4), 623-649. doi: 10.1080/08870449808407422

Barrett, E. J., Ausbrooks, C. Y. B., & Martinez-Cosio, M. (2008). The school as a source of support for Katrina-evacuated youth. *Children, Youth and Environments, 18*(1), 202-235.

Barwick, M., Boydell, K., Stasiulis, E., Ferguson, H., Blase, K., & Fixsen, D. (2005). Knowledge transfer and implementation of evidence-based practices in children's mental health. Ontario Canada: Children's Mental Health Ontario.

Becker-Blease, K., Turner, H., & Finkelhor, D. (2010). Disasters, victimization, and children's mental health. *Child Development, 81*(4), 1040-1052. doi: 10.1111/j.1467-8624.2010.01453.x

Betancourt, T. S., & Khan, K. T. (2008). The mental health of children affected by armed conflict: Protective processes and pathways to resilience. *International Review of Psychiatry, 20*(3), 317-328.

Berger, R., Horenczyk, R., & Gelkopf, M. (2007). School-based intervention for prevention and treatment of elementary students' terror related distress in Israel: A quasi-randomized controlled trial. *Journal of Traumatic Stress, 20*(4), 541-551.

Berkowitz, Bryant, Brymer, Hamblen, Jacobs, & Layne. (2010). Skills for psychological recovery: Field operations guide. *Washington (DC): National Center for PTSD (US Department of Veterans Affairs) and National Child Traumatic Stress Network (funded by US Department of Health and Human Services and jointly coordinated by University of California, Los Angeles, and Duke University).*

Berkowitz, S., Stover, C., & Marans, S. (2011). The child and family traumatic stress intervention: Secondary prevention for youth at risk of developing PTSD. *Journal of*

Child Psychology and Psychiatry, 52(6), 676-685. doi: 10.1111/j.1469-7610.2010.02321.x

Blanchet-Cohen, N., & Nelems, R. (2013). A child-centered evaluation of a psychosocial program: Promoting children's healing, safety and well-being in post-disaster contexts. *Children, Youth and Environments, 23*(1), 23-42.

Boekaerts, M. (1996). Coping with stress in childhood and adolescence. In M. Zeidner & N. Endler (Eds.), *Handbook of coping*. Canada: John Wiley & Sons, Inc.

Bolton, D., Hill, J., O'Ryan, D., Udwin, O., Boyle, S., & Yule, W. (2004). Long-term effects of psychological trauma on psychosocial functioning. *Journal of Child Psychology and Psychiatry, 45*(5), 1007-1014. doi: 10.1111/j.1469-7610.2004.t01-1-00292.x

Boyden, J., & Mann, G. (2005). Children's risk, resilience and coping in extreme situations. *Handbook for working with children and youth: Pathways to resilience across cultures and contexts*, 3-26.

Brotman-Band, E., & J., W. (1988). How to feel better when it feels bad: Children's perspectives on coping with everyday stress. *Developmental Psychology, 24*(2), 247-253.

Brown, J., Cohen, P., Johnson, J., & Smailes, E. (1999). Childhood abuse and neglect: Specificity of effects on adolescent and young adult depression and suicidality. *Journal of the American Academy of Child and Adolescent Psychiatry, 38*(12), 1490-1496. doi: 10.1097/00004583-199912000-00009

Burns, B., Costello, E., Angold, A., Tweed, D., Stangl, D., Farmer, E., & Erkanli, A. (1995). Children's mental health service use across service sectors. *Health Affairs, 14*(3), 147-159.

Callegary, E. (2002). The IDEA's promise unfulfilled: a second look at special education & related services for children with mental health needs. *Journal of Health Care Law & Policy, 5*(164).

Chemtob, C., Nakashima, J., Hamada, R. (2006). Psychosocial interventions for post-diaster trauma symptoms in elementary school children: a controlled community field study. *Pediatrics and Adolescent Medicine, 156*(3), 211-216.

Clarke, A. T. (2006). Coping with interpersonal stress and psychosocial health among children and adolescents: A meta-analysis. *Journal of Youth and Adolescence, 35*(1), 10-23.

Cohen, Jaycox, Walker, Mannarino, Langley, & DuClos. (2009). Treating Traumatized Children after Hurricane Katrina: Project Fleur-de Lis™. [Article]. *Clinical Child & Family Psychology Review, 12*(1), 55-64. doi: 10.1007/s10567-009-0039-2

Cohen, A. (2006). School-based prevalence assessment of the need for mental health services: survey development and pilot study. *Research on Social Work Practice, 16*(2).

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, New Jersey: Psychology Press.

Cohen, J., Deblinger, E., Mannarino, A., & Steer, R. (2004). A multisite, randomized controlled trial for children with sexual abuse-related PTSD symptoms. *Journal of American Academy of Child and Adolescent Psychiatry, 43*(4), 393-402.

Cohen, J. A., Mannarino, A. P., & Iyengar, S. (2011). Community treatment of posttraumatic stress disorder for children exposed to intimate partner violence: a randomized controlled trial. *Archives of pediatrics & adolescent medicine, 165*(1), 16-21.

Compas, B., Connor-Smith, J., Saltzman, H., Harding-Thomsen, A., & Wadsworth, M. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin, 127*(1), 87-127.

Copeland, W., Keeler, G., Angold, A., & Costello, E. (2007). Traumatic events and post-traumatic stress in childhood. *Archives of General Psychiatry, 64*(5), 577-584. doi: 10.1001/archpsyc.64.5.577

Corey, M., Corey, G., & Corey, C. (2013). *Groups: Process and practice*. Belmont, CA: Cengage Learning.

Costa, N., Weems, C. F., & Pina, A. A. (2009). Hurricane Katrina and youth anxiety: The role of perceived attachment beliefs and parenting behaviors. [Article]. *Journal of Anxiety Disorders, 23*(7), 935-941. doi: 10.1016/j.janxdis.2009.06.002

Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *Medical Research Methodology, 11*(100).

Cryder, C. H., Kilmer, R. P., Tedeschi, R. G., & Calhoun, L. G. (2006). An exploratory study of posttraumatic growth in children following a natural disaster. *American Journal of Orthopsychiatry, 76*(1), 65-69.

Cummins, J. (2009). 10 bilingual and immersion programs. *The handbook of language teaching, 51*, 161.

Danielson, C., Macdonald, A., Amstadter, A., Hanson, R., de Arellano, M., Saunders, B., & Kilpatrick, D. (2010). Risky behaviors and depression in conjunction with—or in the absence of—lifetime history of PTSD among sexually abused adolescents. *Child Maltreatment, 15*(1), 101-107. doi: 10.1177/1077559509350075

Dean, K., A;, L., S;, K., Jaycox, L., Wong, M., & B., S. (2008). School-based disaster mental health services: Clinical, policy, and community challenges. *Professional Psychology: Research and Practice, 39*(1), 52-57. doi: 10.1037/0735-7028.39.1.52

Deblinger, E., Mannarino, A. P., Cohen, J. A., & Steer, R. A. (2006). A follow-up study of a multisite, randomized, controlled trial for children with sexual abuse-related PTSD symptoms. [Multicenter Study Randomized Controlled Trial]

Department of Health and Human Services (2003). New Freedom Commission on Mental Health: Achieving the Promise: Transforming Mental Health Care in America. Final Report . DHHS pub no SMA-03-3832. Research Support, N I H , Extramural].

Dempsey, M. (2002). Negative coping as mediator in the relation between violence and outcomes: Inner-city African American youth. *American Journal of Orthopsychiatry, 72*(1), 102-109.

Dorsey, S., Briggs, E., & Woods, B. (2011). Cognitive behavioral treatment for Posttraumatic Stress Disorder in children and adolescents. *Child & Adolescent Psychiatry 20*(2), 255-269.

Dube, S. R., Anda, R. F., Felitti, V. J., Chapman, D. P., Williamson, D. F., & Giles, W. H. (2001). Childhood Abuse, Household Dysfunction, and the Risk of Attempted Suicide Throughout the Life Span. *JAMA: The Journal of the American Medical Association, 286*(24), 3089-3096. doi: 10.1001/jama.286.24.3089

Eksi, A., Braun, K. L., Ertem-Vehid, H., Peykerli, G., Saydam, R., Toparlak, D., & Alyanak, B. (2007). Risk factors for the development of PTSD and depression among child and adolescent victims following a 7.4 magnitude earthquake. *International Journal of Psychiatry in Clinical Practice, 11*(3), 190-199.

Evans, G., & Kantrowitz, E. (2002). Socioeconomic status and health: The potential role of environmental risk exposure. *Annual Review of Public Health, 23*, 303-331.

Evans, L., & Oehler-Stinnett, J. (2006). Children and natural disasters a primer for school psychologists. *School Psychology International, 27*(1), 33-55.

Fairbank, J. A., & Fairbank, D. W. (2009). Epidemiology of child traumatic stress. *Current Psychiatry Reports, 11*(4), 289-295.
Farver, J., Lonigan, C. J., & Eppe, S. (2009). Effective early literacy skill development for young Spanish speaking English language learners: An experimental study of two methods. *Child Development, 80*(3), 703-719.
Faul, F., Erdefelder, E., Buchner, A., &Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*, 1149-1160.
Fawcett, L. M., & Garton, A. F. (2005). The effect of peer collaboration on children's problem-solving ability. *British Journal of Educational Psychology, 75*(2), 157-169.
Fivush, R., Marin, K., Crawford, M., Reynolds, M., & Brewin, C. R. (2007). Children's narratives and well-being. *Cognition and Emotion, 21*(7), 1414-1434.
Foa, E. B., Stein, D. J., & McFarlane, A. C. (2006). Symptomatology and psychopathology of mental health problems after disaster. *Journal of Clinical Psychiatry, 67*(2), 15-25.
Folkman, S. (1984). Personal control and stress and coping processes: A theoretical analysis. *Journal of Personality and Social Psychology, 46*(4), 839-852
Folkman, S., & Lazarus, R. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior, 21*, 219-239.
Fothergill, A., & Peek, L. A. (2004). Poverty and disasters in the United States: A review of recent sociological findings. *Natural Hazards, 32*(1), 89-110.
Gall, M., Borden, K. A., Emrich, C. T., & Cutter, S. L. (2011). The unsustainable trend of natural hazard losses in the United States. *Sustainability, 3*(11), 2157-2181.
Garmezy, N., & Masten, A. (1994). Chronic adversities. *Child and adolescent psychiatry, 3*, 191-208.
Garrett, A., Grant, R., Madrid, P., Brito, A., Abramson, D., & Redlener, I. (2007). Children and megadisasters: lessons learned in the new millennium. [doi: DOI: 10.1016/j.yapd.2007.03.011]. *Advances in Pediatrics, 54*(1), 189-214.
Gelkopf, M., & Berger, R. (2009). A school-based, teacher mediated prevention program (ERASE Stress) for reducing terror related traumatic reactions in Israeli youth: a quasi-randomized controlled trial. *Journal of Child Psychology and Psychiatry, 50*(8), 962-971.
Gewirtz, A., & Edleson, J. (2007). Young children's exposure to intimate partner violence: Towards a developmental risk and resilience framework for research and intervention. *Journal of Family Violence, 22*(3), 151-163. doi: 10.1007/s10896-007-9065-3
Gewirtz, A., Forgatch, M., & Wieling, E. (2008). Parenting practices as potential mechanisms for child adjustment following mass trauma. *Journal of Marital and Family Therapy, 34*(2), 177-192.
Giannopoulou, I., Dikaiakou, A., & Yule, W. (2006). Cognitive-behavioural group intervention for PTSD symptoms in children following the Athens 1999 earthquake: a pilot study. *Clinical child psychology and psychiatry, 11*(4), 543-553.
Glanz, K., Rimer, B., & Viswanath, K. (2008). *Health behavior and health education: Theory, research and practice* (4th Ed. ed.). San Francisco, CA: John Wiley & Sons, Inc.
Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry, 40*(11), 1337-1345.
Grant, A., Kinnersley, P., Metcalf, E., Pill, R., & Houston, H. (2006). Students' views of reflective learning techniques: an efficacy study at a UK medical school. *Medical Education, 40*(4), 379-388.

Grant, K. E., Compas, B. E., Stuhlmacher, A. F., Thurm, A. E., McMahon, S. D., & Halpert, J. A. (2003). Stressors and child and adolescent psychopathology: moving from markers to mechanisms of risk. *Psychological Bulletin, 129*(3), 447.

Greenberg, M. (2004). Current and future challenges in school-based prevention: The researcher perspective. *Prevention Science, 5*(1), 5-13. doi: 10.1023/b:prev.0000013976.84939.55

Greenberg, M., O'Brien, M., Weissber, R., Zins, J., Fredricks, L., Resnik, H., & Elias, M. (2003). Enhancing school-based prevetion and youth development through coordinated social, emotional and academic learning. *American Psychologist*
58(6/7), 466-474.

Gresham. (2005). Response to Intervention: An alternative means of identifying students as emotionally disturbed. *Education and Treatment of Children, 28*(4).

Groome, D., & Soureti, A. (2004). Post-traumatic stress disorder and anxiety symptoms in children exposed to the 1999 Greek earthquake. *British Journal of Psychology, 95*(3), 387-397. doi: 10.1348/0007126041528149

Hackshaw, A. (2008). Small studies: strengths and limitations. *European Respiratory Journal, 32*(5), 1141-1143.

Hawkins, S., & Radcliffe, J. (2006). Current measures of PTSD for children and adolescents. *Journal of Pediatric Psychology, 31*(4), 420-430.

Heim, C., Newport, D., Mletzko, T., Miller, A., & Nemeroff, C. (2008). The link between childhood trauma and depression: Insights from HPA axis studies in humans. *Psychoneuroendocrinology, 33*(6), 693-710. doi: 10.1016/j.psyneuen.2008.03.008

Hensley-Maloney, L., & Varela, R. E. (2009). The Influence of Hurricane Exposure and Anxiety Sensitivity on Panic Symptoms. [Article]. *Child & Youth Care Forum, 38*(3), 135-149. doi: 10.1007/s10566-009-9072-z

Hoagwood, K., Burns, B., Kiser, L., Ringeisen, H., & Schoenwald, S. (2001). Evidence-based practice in child and adolescent mental health services. *Psychiatr Serv, 52*(9), 1179-1189. doi: 10.1176/appi.ps.52.9.1179

Hoagwood, K., Olin, S., Kerker, B., Kratochwill, T., Crowe, M., & Saka, N. (2007). Empirically-base school interventions targeted at academic and mental health functioning. *Journal of Emotional and Behavioral Disorder, 15*(2), 66-92.

Hobfoll, S. E., Watson, P., Bell, C. C., Bryant, R. A., Brymer, M. J., Friedman, M. J., . . . Layne, C. M. (2007). Five essential elements of immediate and mid-term mass trauma intervention: empirical evidence. *Psychiatry: Interpersonal and Biological Processes, 70*(4), 283-315.

Holleran Steiker, L., & Powell, T. (2012). The Journey of Hope curricula: Building resilience after a natural disaster: Save the Children U.S.

Horowitz, J., & Garber, J. (2006). The prevention of depressive symptoms in children and adolescents: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 74*(3), 401-415. doi: 10.1037/0022-006x.74.3.401

Hoven, C., Duarte, C., & Lucas, C. (2005). PSychopathology among new york city public school children 6 months after september 11. *Archives of General Psychiatry, 62*(5), 545-551. doi: 10.1001/archpsyc.62.5.545

International Monetary Fund. (2012). Natural disasters hitting more people, becoming more costly. *International Monetary Fund*. Retrieved from http://www.imf.org/external/pubs/ft/survey/so/2012/new101012a.htm

Individuals with Disabilities Education Improvement Act, 20, Pub. L. No. P.L. 108-446, $ 1400 et seq. Stat. (2004).

January, A., Casey, R., & Paulson, D. (2011). A meta-analysis of classroom-wide interventions to build social skills: Do they work? [Article]. *School Psychology Review, 40*(2), 242-256.

Jaycox, Langley, Dean, Stein, Wong, Sharma, . . . Kataoka. (2009). Making it easier for school staff to help traumatized students. Santa Monica, CA: Rand Coorporation.

Jaycox, L., Morse, L., Tanielian, T., Stein, B. (2006). How schools can help students recover from traumatic experiences a tool kit for supporting long-term recovery. Arlington, VA: Rand

Jaycox;, Cohen, J., Mannarino, A., Walker, D., Langley, A., Gegenheimer, K., . . . Schonlau, M. (2010). Children's mental health care following Hurricane Katrina: A field trial of trauma-focused psychotherapies. *Journal of Traumatic Stress, 23*(2), 223-231. doi: 10.1002/jts.20518

Jones, J. M. (2007). Exposure to chronic community violence resilience in African American children. *Journal of Black Psychology, 33*(2), 125-149.

Jordans, M., Komproe, I., Tol, W., Kohrt, B., Luitel, N., Macy, R., & De Jong, J. (2010). Evaluation of a classroom-based psychosocial intervention in conflict-affected Nepal: a cluster randomized controlled trial. *Journal of Child Psychology and Psychiatry, 51*(7), 818-826. doi: 10.1111/j.1469-7610.2010.02209.x

Kar, N. (2009). Psychological impact of disasters on children: review of assessment and interventions. *World Journal of Pediatrics, 5*(1), 5-11. doi: 10.1007/s12519-009-0001-x

Kar, N., & Bastia, B. K. (2006). Post-traumatic stress disorder, depression and generalised anxiety disorder in adolescents after a natural disaster: a study of comorbidity. *Clinical Practice and Epidemiology in Mental Health, 2*(1), 17.

Kassam-Adams, N., Palmieri, P., Rork, K., Delahanty, D., Kenardy, J., Kohser, K., . . . McGrath, C. (2012). Acute stress symptoms in children: Results from an international data archive. *Journal of the American Academy of Child and Adolescent Psychiatry, 51*(8).

Kataoka, S., Rowan, B., & Hoagwood, K. (2009). Bridging the divide: In search of common ground in mental health and education research and policy. *Psychiatric Services, 60*(11).

Kataoka, S., Stein, B., Jaycox, L., Wong, M., Escudero, P., Tu, W., . . . Fink, A. (2003). A school-based mental health program for traumatized Latino immigrant children. . *Academy of Child and Adolescent Psychiatry, 42*(3).

Kataoka, S. H., Nadeem, E., Wong, M., Langley, A. K., Jaycox, L. H., Stein, B. D., & Young, P. (2009). Improving Disaster Mental Health Care in Schools: A Community-Partnered Approach. [doi: DOI: 10.1016/j.amepre.2009.08.002]. *American Journal of Preventive Medicine, 37*(6, Supplement 1), S225-S229.

Kelly, M., Berzin, S., Frey, A., Alvarez, M., Shaffer, G., & O'Brien, K. (2010). The state of school social work: Findings from the National School Social Work Survey. *School Mental Health, 2*(3), 132-141. doi: 10.1007/s12310-010-9034-5

Kirby, L. D., & Fraser, M. W. (1997). Risk and resilience in childhood. *Risk and resilience in childhood: An ecological perspective*, 10-33.

Kutnick, P., Ota, C., & Berdondini, L. (2008). Improving the effects of group working in classrooms with young school-aged children: Facilitating attainment, interaction and classroom activity. *Learning and Instruction, 18*(1), 83-95. doi: http://dx.doi.org/10.1016/j.learninstruc.2006.12.002

La Greca, A., & Silverman, W. (2009). Treatment and prevention of posttraumatic stress reactions in children and adolescents exposed to disasters and terrorism: What is the evidence? *Child Development Perspectives, 3*(1), 4-10. doi: 10.1111/j.1750-8606.2008.00069.x

La Greca, A., & Silverman, W. (2010). Treatment and prevention of posttraumatic stress reactions in children and adolescents exposed to disasters and terrorism: What is the evidence? *Child development Perspectives, 3*(1), 4-10.

LaGreca, A., & Prinstein, M. (2002). Hurricanes and earthquakes. In LaGreca, W. Silverman, E. Vernberg & M. Roberts (Eds.), *Helping children cope with disasters and terrorism* (pp. 107-138). Washington, DC: American Psychological Association.

Lazarus, R., & Folkman, S. (1984). *Stress appraisal and coping*. New York, NY: Springer Publishing Company, Inc.

Leaning, J., & Guha-Sapir, D. (2013). Natural disasters, armed conflict, and public health. *New England Journal of Medicine, 369*(19), 1836-1842.

LeCroy, C. (2008). *Handbook of evidence-based treatment manuals for children and adolescents* (Vol. 2). New York: Oxford University Press.

Lengua, L. J., Long, A. C., & Meltzoff, A. N. (2006). Pre attack stress load, appraisals, and coping in children's responses to the 9/11 terrorist attacks. *Journal of Child Psychology and Psychiatry, 47*(12), 1219-1227.

Liu, M., Wang, L., Shi, Z., Zhang, Z., Zhang, K., & Shen, J. (2011). Mental health problems among children one-year after Sichuan earthquake in China: a follow-up study. *PloS one, 6*(2), e14706.

Lodewijks, H. P., de Ruiter, C., & Doreleijers, T. A. (2010). The impact of protective factors in desistance from violent reoffending: A study in three samples of adolescent offenders. *Journal of Interpersonal Violence, 25*(3), 568-587.

Lofland, J., & Lofland, L. (1995). *Analyzing social settings: A guide to qualitative observation and analysis*. Belmont, CA: Wadsworth, Inc.

Lutz, W. J., Hock, E., & Kang, M. J. (2007). Children's communication about distressing events: The role of emotional openness and psychological attributes of family members. *American Journal of Orthopsychiatry, 77*(1), 86-94.

Madrid, P., & Grant, R. (2008). Meeting mental health needs following a natural disaster: Lessons from Hurricane Katrina. *Professional Psychology: Research and Practice, 39*(1), 86-92. doi: 10.1037/0735-7028.39.1.86

Madrid, P. A., Grant, R., Reilly, M. J., & Redlener, N. B. (2006). Challenges in meeting immediate emotional needs: short-term impact of a major disaster on children's mental health: building resiliency in the aftermath of Hurricane Katrina. *Pediatrics, 117*(Supplement 4), S448-S453.

Malekoff, A. (2004). *Group work with adolescents: Principles and practice*: The Guilford Press.

Malekoff, A. (2008). Transforming trauma and empowering children and adolescents in the aftermath of a disaster through group work. *Social work with groups, 31*(1), 29-52.

March, J. S., Amaya-Jackson, L., Murray, M. C., & Schulte, A. (1998). Cognitive-behavioral psychotherapy for children and adolescents with Posttraumatic Stress Disorder after a single incident stressor. *Journal of the American Academy of Child & Adolescent Psychiatry, 37*(6), 585-593.

Masten, A., & Obradovic, J. (2006). Competence and resilience in development. *Annals of the New York Academy of Sciences, 1094*(1), 13-27. doi: 10.1196/annals.1376.003

Masten, A., & Obradovic, J. (2008). Disaster preparation and recovery: Lessons from research on resilience in human development. *Ecology and Society, 13*(1), 9.
Masten, A. S., & Narayan, A. J. (2012). Child development in the context of disaster, war, and terrorism: Pathways of risk and resilience. *Psychology, 63*.
Masten, A. S., & Osofsky, J. D. (2010). Disasters and their impact on child development: Introduction to the special section. *Child Development, 81*(4), 1029-1039.
MacNeil, W., & Topping, K. (2009). Crisis management in schools: evidence based. *The Journal of Educational Enquiry, 7*(1).
McFarlane, A. C., & Van Hooff, M. (2009). Impact of childhood exposure to a natural disaster on adult mental health: 20-year longitudinal follow-up study. *The British Journal of Psychiatry, 195*(2), 142-148.
McLaughlin, K., Fairbank, J., Gruber, M., Jones, R., Lakoma, M., Pfefferbaum, B., . . . Kessler, R. (2009). Serious emotional disturbance among youths exposed to Hurricane Katrina 2 years post disaster. *Journal of American Academy of Child and Adolescent Psychiatry, 48*(11).
Merikangas, K., He, J., Burstein, M., Swendsen, J., Avenevoli, S., Case, B., . . . Olfson, M. (2011). Service utilization for lifetime mental disorders in U.S. adolescents: Results of the national comorbidity survey–adolescent supplement (NCS-A). *Journal of the American Academy of Child and Adolescent Psychiatry, 50*(1), 32-45. doi: 10.1016/j.jaac.2010.10.006
Najam, J., Hayatbaksh, M., Clavarino, A., Bor, W., O'Callaghan, M., & Williams, G. (2010). Family poverty over the early life course and reccurent adolescent and young adult anxiety and depression: A longitudinal study. *American Journal of Public Health, 100*(9).
NASA. (2011). Tornado track in Tuscaloosa, Alabama, from http://earthobservatory.nasa.gov/IOTD/view.php?id=50434
National Child Traumatic Stress Network. (2011). Cognitive behavioral intervention for trauma in schools (CBITS), from http://www.nctsnet.org/nctsn_assets/pdfs/CBITSfactsheet.pdf
Neil, A., & Christensen, H. (2009). Efficacy and effectiveness of school-based prevention and early intervention programs for anxiety. *Clinical Psychology Review, 29*(3), 208-215. doi: 10.1016/j.cpr.2009.01.002
Neria, Y., Nandi, A., & Galea. (2008). Post-traumatic stress disorder following disasters: A systematic review. *Psychological Medicine, 38*, 467-480.
Network, N. C. T. S. (2012). Defining trauma and child traumatic stress, from http://www.nctsn.org/content/defining-trauma-and-child-traumatic-stress
Norris, F. H. (2006). Disaster research methods: Past progress and future directions. *Journal of Traumatic Stress, 19*(2), 173-184.
Opper, S., & Ginsburg, H. (1987). *Piaget's theory of development*. New York.
Park, C., & Folkman, S. (1997). Meaning in the context of stress and coping. *Review of General Psychology, 1*(2), 115-144.
Payne, M. (Ed.). (2005). *Modern social work theory* (3rd ed. ed.). Chicago: Lyceum Books, inc.
Peek, L. (2008). Children and disasters: Understanding vulnerability, developing capacities, and promoting resilience — an introduction. *Children, Youth and Environments, 18*(1), 1-29. doi: 10.7721/chilyoutenvi.18.1.0001

Pfefferbaum, B., Varma, V., Nitiéma, P., & Newman, E. (2014). Universal preventive interventions for children in the context of disasters and terrorism. *Child and Adolescent Psychiatric Clinics of North America*.

Pina, A., Villalta, I., Ortiz, C., Gottschall, A., Costa, N., & Weems, C. (2008). Social support, discrimination, and coping as predictors of posttraumatic stress reactions in youth survivors of Hurricane Katrina. *Journal of Clinical Child & Adolescent Psychology, 37*(3), 564-574. doi: 10.1080/15374410802148228

Pincus, D., & Friedman, A. (2004). Improving children's coping with everyday stress: Transporting treatment interventions to the school setting. *Clinical Child & Family Psychology Review, 7*(4).

Pine, D. (2003). Developmental psychobiology and response to threats: relevance to trauma in children and adolescents. *Biological Psychiatry, 53*(9), 796-808. doi: 10.1016/s0006-3223(03)00112-4

Powell, T. (2011). The Journey of Hope Curricula: Building resilience after a natural disaster. Christchurch New Zealand: Save the Children.

Proctor, E. K., Landsverk, J., Aarons, G., Chambers, D., Glisson, C., & Mittman, B. (2009). Implementation research in mental health services: An emerging science with conceptual, methodological, and training challenges. *Administration and Policy in Mental Health and Mental Health Services Research, 36*(1), 24-34.

Putnam, F. (2006). The impact of trauma on child development. *Juvenile and Family Court Journal*.

Richards, T. J., & Richards, L. (1994). Using computers in qualitative research. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 445-462). London: Sage Publications.

Raudenbush, S. W., Bryk, A. S., & Congdon, R. T. (2002). Hierarchical linear modeling. *Thousands Oaks: Sage*.

Rolfsnes, E. S., & Idsoe, T. (2011). School-based intervention programs for PTSD symptoms: A review and meta-analysis. *Journal of Traumatic Stress, 24*(2), 155-165.

Ronan, K. R., & Johnston, D. M. (2005). *Promoting community resilience in disasters* (p. 210). New York: Springer.

Rosario, M., Salzinger, S., Feldman, R. S., & NgMak, D. S. (2003). Community violence exposure and delinquent behaviors among youth: The moderating role of coping. *Journal of Community Psychology, 31*(5), 489-512.

Rowe, C. L., & Liddle, H. A. (2008). When the levee breaks: Treating adolescents and families in the aftermath of Hurricane Katrina. *Journal of Marital and Family Therapy, 34*(2), 132-148.

Rubin, A., & Babbie, E. (Eds.). (2005). *Research methods for social work* (6th edition ed.): Thomson Higher Education.

Rudy, H. L., & Levinson, E. (2008). Best practices in the multidisciplinary assessment of emotional disturbances: A primer for counselors. [Article]. *Journal of Counseling & Development, 86*(4), 494-504.

Saleeby, D. (1996). The strengths perspective in social work practice: Extensions and cautions. *Social Work, 41*(3), 296-305.

Salloum, A., Garside, L. W., Irwin, C. L., Anderson, A. D., & Francois, A. H. (2009). Grief and trauma group therapy for children after Hurricane Katrina. *Social work with groups, 32*(1-2), 64-79.

Salloum, A., & Overstreet, S. (2008). Evaluation of individual and group grief and trauma interventions for children post disaster. *J Clin Child Adolesc Psychol, 37*(3), 495-507.
Salloum, A., & Overstreet, S. (2012). Grief and trauma intervention for children after disaster: exploring coping skills versus trauma narration. *Behav Res Ther, 50*(3), 169-179.
Salmon, K., & Bryant R, A. (2002). Posttraumatic stress disorder in children: The influence of developmental factors. *Clinical Psychology Review, 22*(2), 163-188.
Sapienza, J. K., & Masten, A. S. (2011). Understanding and promoting resilience in children and youth. *Current Opinion in Psychiatry, 24*(4), 267.
Save the Children (2009). *The Elementary Journey of Hope Manual.* Washington, D.C.
Sexton, T., Gordon, K., Gurman, A., Lebow, J., Holtzworth-Munroe, A., & Johnson, S. (2011). Guidelines for classifying evidence-based treatments in couple and family therapy. *Family Process, 50*(3), 377-392. doi: 10.1111/j.1545-5300.2011.01363.x
Silberman, M. L. (2007). The handbook of experiential learning Retrieved from http://UTXA.eblib.com/patron/FullRecord.aspx?p=287366
Silverman, W. K., Ortiz, C. D., Viswesvaran, C., Burns, B. J., Kolko, D. J., Putnam, F. W., & Amaya-Jackson, L. (2008). Evidence-based psychosocial treatments for children and adolescents exposed to traumatic events. *Journal of Clinical Child & Adolescent Psychology, 37*(1), 156-183.
Smith, C., & Carlson, B. (1997). Stress, coping and resilience in children and youth. *Social Service Review, 71*(2).
Smokowski, P. R., & Kopasz, K. H. (2005). Bullying in school: An overview of types, effects, family characteristics, and intervention strategies. *Children & Schools, 27*(2), 101-110.
Stake, R. E. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), The SAGE handbook of qualitative research (3rd ed.) (pp. 443–466). Thousand Oaks,CA: SAGE.
Stake, R. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
Steele, W., Kuban, C., & Raider, M. C. (2009). Connections, continuity, dignity, opportunities model: Follow-up of children who completed the I Feel Better Now! trauma intervention program. *School Social Work Journal, 33*(2).
Stein, B., Kataoka, S., Jaycox, L., Wong, M., Fink, A., Escudero, P., & Zaragoza, C. (2002). Theoretical basis and program design of a school-based mental health intervention for traumatized immigrant children: A collaborative research partnership. *The Journal of Behavioral Health Services & Research, 29*(3).
Stephan, S., Weist, M., Kataoka, S., Adelsheim, S., & Mills, C. (2007). Transformation of children's mental health services: The role of school mental health. *Psychiatric Services, 58*(10), 1330-1338.
Stevenson, F., & Zimmerman, M. (2005). Adolescent resilience: A framework for understanding healthy development in the face of risk. *Annual Review of Public Health, 26*, 399-419. doi: doi: 10.1146/annurev.publhealth.26.021304.144357
Strauss, A. (1987). *Qualitative analysis for social scientists*. Cambridge: Cambridge University Press.
Strauss, K., Dapp, U., Anders, J., von Renteln-Kruse, W., & Schmidt, S. (2011). Range and specificity of war-related trauma to posttraumatic stress; depression and general health perception: Displaced former World War II children in late life. *Journal of Affective Disorders, 128*(3), 267-276. doi: http://dx.doi.org/10.1016/j.jad.2010.07.009

Streeck-Fischer, A., & Kolk, B. (2000). Down will come baby, cradle and all: Diagnostic and therapeutic implications of chronic trauma on child development. *Australian and New Zealand Journal of Psychiatry, 34*(6), 903-918.

Taylor, M., Brymer, M., & Reyes, G. (2011). *Mental health recovery in schools: Psychological First Aid for Schools (PFA-S)*. The National Child Traumatic Stress Network.

Teicher, M. H., Andersen, S. L., Polcari, A., Anderson, C. M., & Navalta, C. P. (2002). Developmental neurobiology of childhood stress and trauma. *Psychiatric Clinics of North American, 25*, 397-426.

Terranova, A. M., Boxer, P., & Morris, A. S. (2009). Factors influencing the course of posttraumatic stress following a natural disaster: Children's reactions to Hurricane Katrina. *Journal of Applied Developmental Psychology, 30*(3), 344-355.

Thienkrua, W., Cardozo, B., Chakkraband, M., Guadamuz, T., Pengjuntr, W., Tantipiwatanaskul, P., . . . van Griensven, F. (2006). Symptoms of Posttraumatic Stress Disorder and Depression among children in tsunami-affected areas in Southern Thailand. *The Journal of the American Medical Association, 296*(5), 549-559. doi: 10.1001/jama.296.5.549

Tolin, D. F., & Foa, E. B. (2006). Sex differences in trauma and posttraumatic stress disorder: a quantitative review of 25 years of research. *Psychological Bulletin, 132*(6), 959.

Tosland, R., & Rivas, R. (2009). *An introduction to group work practice* (6th Edition ed.). Boston, MA: Pearson Education.

U.S. Public Health Service, O. o. t. S. G. (2004). *Report of the Surgeon General's Conference on Children's Mental Health: A national action agenda*. Rockville, MD.

Udwin, O., Boyle, S., Yule, W., Bolton, D., & O'Ryan, D. (2003). Risk factors for long-term psychological effects of a disaster experienced in adolescence: Predictors of Post Traumatic Stress Disorder. *Journal of Child Psychology and Psychiatry, 41*(8), 969-979.

Vernberg, E. M., Steinberg, A. M., Jacobs, A. K., Brymer, M. J., Watson, P. J., Osofsky, J. D., . . . Ruzek, J. I. (2008). Innovations in disaster mental health: Psychological first aid. *Professional Psychology: Research and Practice; Professional Psychology: Research and Practice, 39*(4), 381.

Wadsworth, M., Santiago, C., & Einhorn, L. (2009). Coping with displacement from Hurricane Katrina: predictors of one-year post-traumatic stress and depression symptom trajectories. *Anxiety, Stress, & Coping, 22*(4), 413-432.

Wadsworth, M. E., Gudmundsen, G. R., Raviv, T., Ahlkvist, J. A., McIntosh, D. N., Kline, G. H., . . . Burwell, R. A. (2004). Coping with terrorism: Age and gender differences in effortful and involuntary responses to September 11th. *Applied Developmental Science, 8*(3), 143-157.

Walker, H., Ramsay, E., & Gresham, F. (2004). *Antisocial behavior in school: Evidence-based practices (2nd ed.)*. Belmont, CA.

Walsh, F. (2007). Traumatic loss and major disasters: strengthening family and community resilience. *Fam Process, 46*(2), 207-227.

Wang, Y., Nomura, Y., PatHorenczyk, R., Doppelt, O., Abramovitz, R., Brom, D., & Chemtob, C. (2006). Association of direct exposure to terrorism, media exposure to terrorism, and other trauma with emotional and behavioral problems in preschool children. *Annals of the New York Academy of Sciences, 1094*(1), 363-368. doi: 10.1196/annals.1376.051

Weems, C., & Overstreet, S. (2008). Child and adolescent mental health research in the context of Hurricane Katrina: An ecological needs-based perspective and introduction to the

special section. *Journal of Clinical Child & Adolescent Psychology, 37*(3), 487-494. doi: 10.1080/15374410802148251
Weems, C. F., Pina, A. A., Costa, N. M., Watts, S. E., Taylor, L. K., & Cannon, M. F. (2007). Predisaster trait anxiety and negative affect predict posttraumatic stress in youths after Hurricane Katrina. *Journal of Consulting and Clinical Psychology, 75*(1), 154-159. doi: 10.1037/0022-006x.75.1.154
Weissbecker, I., Sephton, S. E., Martin, M. B., & Simpson, D. M. (2008). Psychological and physiological correlates of stress in children exposed to disaster: Current research and recommendations for intervention. *Children Youth and Environments, 18*(1), 30-70.
Weist, M., Myers, P., Hastings, E., Ghuman, H., & Han, Y. (1999). Psychosocial functioning of youth receiving mental health services in the schools versus community mental health centers. *Community Mental Health Journal, 35*(1), 69-81. doi: 10.1023/a:1018700126364
Weist, M., Rubin, M., Moore, E., Adelshiem, S., & Wrobel, G. (2007). Mental health screening in schools. *Journal of School Health, 77*(2).
Weisz, J. R., Sandler, I. N., Durlak, J. A., & Anton, B. S. (2005). Promoting and protecting youth mental health through evidence-based prevention and treatment. *American Psychologist, 60*(6), 628.
Williams, R., & Alexander, D. (2009). Conflict, terrorism, and disasters: The psychosocial consequences for children *Conflict and Catastrophe Medicine* (pp. 553-567): Springer.
Williams, R., Alexander, D., Bolsover, D., & Bakke, F. (2008). Children, resilience and disasters: recent evidence that should influence a model of psychosocial care. *Current Opinion in Psychiatry, 21*(4), 338-344 310.1097/YCO.1090b1013e328305b328306e328304.
Winje, D., & Ulvik, A. (1998). Long-term Outcome of Trauma in Children: The Psychological Consequences of a Bus Accident. *Journal of Child Psychology and Psychiatry, 39*(5), 635-642.
Wolmer, L., Hamiel, D., & Laor, N. (2011). Preventing children's posttraumatic stress after disaster with teacher-based intervention: A controlled study. *Journal of the American Academy of Child & Adolescent Psychiatry, 50*(4), 340-348. e342.
Wolmer, L., Laor, N., Dedeoglu, C., Siev, J., & Yazgan, Y. (2005). Teacher mediated intervention after disaster: a controlled three year follow-up of children's functioning. *Journal of Child Psychology and Psychiatry, 46*(11), 1161-1168.
Wolmer, L., Laor, N., Dedeoglu, C., Siev, J., & Yazgan, Y. (2005). Teacher mediated intervention after disaster: a controlled three year follow up of children's functioning. *Journal of Child Psychology and Psychiatry, 46*(11), 1161-1168.
Woltman, H., Feldstain, A., MacKay, J. C., & Rocchi, M. (2012). An introduction to hierarchical linear modeling. *Tutorials in Quantitative Methods for Psychology, 8*(1), 52-69.
Yin, R. (1994). *Case study research: design and methods* (2nd ed. ed.). Thousand Oaks, CA: Sage Publishing.
Young, B. H., Ruzek, J. I., Wong, M., Salzer, B., & Naturale, A. (2006). Disaster mental health training. *Mental health intervention following disasters and mass violence*, 54-79.
Zakour, M. J., & Harrell, E. B. (2003). Access to disaster services: Social work interventions for vulnerable populations. *Journal of Social Service Research, 30*(2), 27-54.