

The Impact of Hurricane Ike on our Public Schools: Implications for School Counseling

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Researchers studying children after hurricanes found that children frequently experienced traumatic symptoms of (a) intrusive thoughts causing inattentiveness and irritability; (b) hyper-arousal causing aggression and sleeplessness; and (c) avoidance of reminders of the traumatic event causing clinginess, fear, depression, and regression (Lonigan, Anthony, & Shannon, 1998; Vogel & Vernberg, 1993).

Purpose of the Study

The purpose of this study was to examine the effects of hurricanes on public school children and adolescents. This study explores perceptions of public school counselors regarding the impact of Hurricane Ike and its aftermath on public school children and adolescents to provide beneficial implications to practitioners of school counseling and mental health.

Literature Review

The Impact of Hurricanes

Hurricanes and other natural disasters have significantly impacted the lives of thousands of U.S. citizens within the North American continent. The most prominent natural disaster of 2005, Hurricane Katrina, was identified as the most costly hurricane in United States history with over \$81 billion in damage. It was the deadliest in 77 years with approximately 1,833 fatalities (Knabb, Rhome, & Brown, 2005). Children and adolescents were often seriously affected by hurricanes and other natural disasters. Children's typical symptoms after natural disasters included fear, depression, self-blame, guilt, loss of interest in school and other activities, regressive behavior, sleep and appetite disturbance, night terrors, aggressiveness, poor concentration, and separation anxiety (Speier, 2000).

Children under the age of 12 were one of the most vulnerable populations during traumatic events because their neuro-physiological systems were subjected to permanent changes and their coping skills were not developed sufficiently to manage catastrophic events (Perry, Pollard, Blakely, Baker, & Vigilante, 1995; Speier, 2000). According to Shannon, Lonigan, Fitch, and Taylor (1994), there was a significant drop in self-reported school performance by school-aged children exposed to Hurricane Hugo. Three months after Hurricane Andrew, 55% of elementary school children surveyed exhibited moderate to very severe symptoms such as avoidance of trauma-related stimuli and intrusion of traumatic images and 30% met criteria for Posttraumatic Stress Disorder (LeGreca, Silverman, Vernberg, & Prinstein, 1996). Even a single traumatic incident caused the brain to activate a continual "fight or flight" response and made learning in a classroom difficult (Kagan, 2004). Trauma decreased brain functioning in Broca's area that controls speaking and Wernicke's area that controls the ability to comprehend language (Siegel, 1999; Tinnin, 1996).

Treatment Modalities for Children and Adolescents Exposed to Trauma

About 15% to 43% of children will be exposed to a traumatic event including abuse, car accidents, or natural disasters. Of children who experienced a traumatic event, 3% to 15% of girls and 1% to 6% of boys experienced heightened psychological distress, typically in the form of Post Traumatic Stress Disorder (PTSD) (American Academy of Child and Adolescent Psychiatry, 1998). The primary treatment

modality for (PTSD) is Cognitive Behavioral Therapy (CBT). Stallard (2006) suggested CBT interventions were the most commonly researched and supported treatment model for childhood trauma.

The use of CBT interventions were used successfully with preschool children ages 2 to 8 years old and school-age children and adolescents between the ages of 7 to 18. CBT treatment typically involved one or more of the following: (a) exposure to the traumatic material, (b) cognitive reprocessing and reframing, (c) stress management, and (d) parent treatment. Exposure techniques for children varied from talking about the traumatic events, drawing pictures about the trauma, writing about the traumatic events, or recounting the events into recorder (Gilman & Chard, 2007). Gilman and Chard noted the most commonly used stress reduction interventions involved diaphragmatic breathing, muscle relaxation, and thought stopping," where the child was given a replacement thought to say every time a distressing thought occurred.

CBT was effective in the treatment of depression and anxiety in children and adolescents who experienced a traumatic event. Lewinsohn and Clark (1999) and Velting, Setzer, and Albano (2004) provided a summary of specific components of CBT used successfully with adolescent depression and anxiety. For depression, essential components included psycho-education (i.e. teaching the adolescent and his or her family about the disorder, including how depression is conceptualized from the standpoint of CBT), replacement of self-defeating thoughts with more constructive and positive thinking, increased participation in pleasant activities, instruction in adaptive and constructive social and communication skills, conflict resolution skills, self-monitoring and goal-setting skills. For anxiety, essential components included psycho-education (i.e. teaching the child and family how and why excessive levels of anxiety are learned and maintained, and the rationale for various techniques), somatic management techniques (i.e. deep breathing and relaxation training), and cognitive restructuring (i.e. identifying unhelpful, anxiety provoking thoughts, challenging these thoughts and replacing thoughts with more proactive and adaptive thinking).

Group therapy was considered a treatment for both acutely and chronically traumatized individuals. The primary task of group therapy and community interventions was to help victims regain a sense of safety and of mastery (Van Der Kolk, McFarlane, & Van Der Hart, 2007). CBT was used in group settings with children and adolescents who experienced a traumatic event. Some advantages of CBT in group settings included (a) the ability to mimic real-world interactions with other people, (b) the possibility of practicing newly learned behaviors in session under the guidance of a therapist prior to trying them in the non-therapy world, (c) the potential for role-plays where the therapist can be the observer instead of participant, and (d) the ability for clients to test hypotheses surrounding their beliefs using feedback from other group members experiences (Gilman & Chard, 2007).

Play therapy was shown to be an effective treatment for children exposed to traumatic events. When children could not clearly articulate thoughts and feeling, play was thought to be the most effective approach to trauma resolution (Drewes, 2001; Van Dyke & Wiedis, 2001; Webb, 2001). After Hurricane Katrina, one child used the figures of a mother and child in a dollhouse to act out incidents that occurred during the storm. She pretended that a tree fell through the roof of a dollhouse. She hid the figures under the bed when the tree fell, and then acted as if they were terrified. Thus, she was able to play out the traumatic incident in a safe environment without having to specifically articulate her feelings and thoughts (Hebert & Ballard, 2007).

The National Institute of Mental Health (NIMH, 2001) suggested counselors needed to provide psycho-educational training to parents and teachers to respond to their child's nightmares related to a natural disaster. Children in middle to late childhood were more likely to experience sleep disturbances as they began to understand the finality of loss.

The Study

A survey study was conducted to investigate school counselors' perceptions of the impact of Hurricane Ike on public school children. Fifty-two school counselors responded to an online survey. Thirty-seven percent of the respondents had 6 to 10 years experience as a school counselor. Forty percent of the respondents were 51 to 60 years old. The ethnic diversity of the respondents was dominantly White (79%); other groups represented were African American (15%), American Indian (2%), and Asian (2%).

Findings

Participants were asked to rate statements using a five-point Likert scale with one (1) representing an increase and five (5) representing a decrease in students' behavior at school. Based on their perceptions, participants were asked to rate if students' behaviors showed an increase or decrease upon returning to school after Hurricane Ike. The responses related to students' behaviors were separated into three categories and are reported in Tables 1, 2, and 3, found in Appendix 1. The three categories of students' behaviors included: basic needs, academic focus/classroom behavior, and student social interactions. Perceptions of safety needs related to training for faculty and staff and compliance with safety regulations are reported in Table 4, found in Appendix 1. Written comments or suggestions related to the survey statements are reported under the qualitative results section.

All school counselors who responded to this survey reported an increase in homelessness for students in their schools. Over 90% of the participants reported a decrease in students' daily attendance and parental involvement in their child(ren)'s school activities. Participants reported a decrease in students' emotional stability immediately after Hurricane Ike. Table 1 shows the students' behaviors related to basic needs as perceived by school counselors who responded to this survey.

All participants reported a decrease in children's ability to focus on academic activities and work independently after Hurricane Ike. The majority of participants reported an increase in disruptive behaviors and fighting in school. Participating school counselors noted a decrease in students' interest in extra curricular activities. Table 2 shows participating school counselors' perceptions of students' behaviors related to academic focus and classroom behavior.

The participating school counselors observed an increase in students' interactions with school administrators which corresponds with the increase in disruptive behaviors. All participants noted an increase in students' contact with school counselors. The majority (over 80%) of school counselors responding to this survey noted that students preferred interaction with their peers, while interaction with classroom teachers decreased. Table 3 shows school counselors' perceptions of students' behaviors related to social interactions.

Safety issues emerged from this study. The majority (91%) of participating school counselors reported a decrease in the school facilities and resources after the devastation of property by Hurricane Ike. All participants noted an increase in faculty and staff training on safety concerns. Increased compliance with safety regulations was reported by 95% of school counselors responding to this survey. Table 4 shows perceptions of safety concerns of the participating school counselors.

Qualitative Findings

The participants of this study were invited to share their concerns and recommendations for schools to be responsive to students' behaviors and needs. Four themes emerged: concern for students, concern for students' safety, concerns for preparedness and training, and concerns about state and federal agencies. Selected quotes that represent these areas are as follows:

Concern for Students

Concern for students was expressed by participating school counselors in the statements below:

"I am concerned that the symptoms of Posttraumatic Stress Disorder in children due to Hurricane Ike are being overlooked or dismissed for various reasons both at home and at school. Not all children know how to express what they are feeling, and sadly enough they are not always given the opportunity to learn. I fear that the effects of the storm and its aftermath on our children may not be detected immediately and could be dismissed or misread once they surface."

"I am concerned that there are students living in less than safe circumstances for extended periods of time."

"[I am concerned about] our students losing their homes, clothes, and supplies."

"I am concerned about the lack of provision of counseling services to families in devastated communities."

“Family stress is a concern. Some families are still displaced and many have lost income or jobs. I am concerned about how children will react [during the] next hurricane season. Teachers have also dealt with stress, more illness, depression, and days missed to deal with the loss, rebuilding or move.”

“[I see a need for] group support for children and adults to get together and vent, and share stories. Support groups are great if done correctly.”

“Our campus was a total loss and we are doing everything in our power to make things as normal for the students [as possible]. But teachers also had losses at home and it has been a difficult year for them to deal with so much destruction.”

Concern for Safety/Preparedness

Participating school counselors expressed concern for general safety and community preparedness in the following statements:

“I was disturbed by the speed in which the district responded to the evacuation timeline. I feel that the school district could have released everyone [on] Wednesday at the close of the school day instead of the following day.”

“School safety and information given to the public regarding city conditions after a disaster are a concern.”

“[I am concerned about] the cost to tax payers for rescue and relief. And citizens who take advantage of programs designed to provide relief to the suffering – not the greedy.”

“Encourage other school districts not affected by these disasters to pitch in and donate supplies, etc. Increase in [the dollar amount on] Lone Star cards for emergency uses with stipulations they be used for food and clothing.”

“Individual citizens should be more prepared and self reliant – not depending on the government to support them.”

“Have a flood plan in place; [have] procedures prior to evacuation from hurricanes to preserve as many materials as possible.”

Training Concerns

Participating school counselors identified training need for both adults and children through the following comments:

“[I see a need for] educational programs that emphasize improving the student’s resilience and hope in spite of obstacles.”

“[I see a need for] educational programs, community outreach, after school activities [and] clubs, connecting [with] local churches and families.”

Frustration about State and Federal Issues

Participating school counselors expressed frustration about state and federal issues through the following statements:

“[I saw a need for] co-ordination of county resources and personnel.”

“[It] would be nice to have more positive involvement from agencies in helping rebuild our community.”

“[I saw a need for] more information about help at the county level.”

“Help make us more aware of agencies that can help in our recovery.”

Summary and Conclusions

This study used online survey methodology and qualitative reflections to examine perceptions of 52 school counselors from Southeast Texas about students’ behaviors following the devastating Hurricane Ike in September 2008. The majority of participants were White between the ages of 51 to 60 years of age with 6 to 10 years of school counseling experience.

Four areas of concern emerged from this study: concern for students’ welfare, concern for safety and preparedness, training needs for counselors, and a lack of support and interaction among governmental agencies.

Regarding student concerns, the participants observed an increase in homelessness for students and their families. Counselors noted that parents concerns focused on repairs to homes and returning to their jobs, resulting in a decrease in involvement in students' school activities. Participants noted that students reacted to the stress of their parents and family members. The majority of participating school counselors observed that students and families needed access to counseling services to bolster emotional and psychological needs.

Participating school counselors observed that students turned to their peers for support and emotional needs corresponding with a decrease in the ability to work independently in the classroom. Counselors observed that students needed time to interact with each other and to return to normal routines.

All participants reported an increase in students' interactions with school counselors and school administrators corresponding to the increase in student behavior referrals and challenging behaviors. Students were observed decreasing interactions with teachers corresponding with the decrease in academic focus.

Participating school counselors reported a need for improved interagency interactions and cooperation to provide effective services to students and families. Participants reported a need for more information on services provided through state agencies and county government offices.

Recommendations

For Counseling in Schools

The following recommendations may be considered by school counselors and other mental health practitioners in responding to needs of students, families, and communities following a natural disaster such as Hurricane Ike. School counselors may consider training and preparation in:

1. The use of a classroom guidance curriculum with children and adolescents following a traumatic event such as a hurricane.
2. The use of small group and individual counseling with students following a traumatic event.
3. The use of the most appropriate treatment modalities for Posttraumatic Stress Disorder, Depression, and Anxiety among children and adolescents following a traumatic event.
4. The use of the Comprehensive School Guidance and Counseling Model when providing services to all students following a natural disaster.

For Community Support

To be responsive to families and community needs, school counselors may consider obtaining access to the following:

5. A list of qualified licensed psychotherapists experienced in treating children and adolescents with Posttraumatic Stress Disorder.
6. A list of agencies that provide housing and medical assistance to families following a disaster.

For Counselors' Professionalism

Regarding the professional school counselor's skills and knowledge, the following ethical guideline is emphasized:

7. Professional School Counselors should be aware of their professional limitations when providing counseling services to children and adolescents following a natural disaster.

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Appendix 1

Table 1
Counselors' Perceptions of Student Behavior Issues: Basic Needs N = 52

Student Behavior: Basic Needs			
Behavior	Increase	Decrease	% Participants
Homelessness	√		100
Daily attendance		√	91
Emotional stability		√	95
Parental involvement		√	98

Table 2
Counselors' Perceptions of Student Behavior Issues: Academic focus/Classroom Behavior N = 52

Student Behavior: Academic Focus/Classroom Behavior			
Behavior	Increase	Decrease	% Participants
Academic focus		√	93
Working independently		√	100
Behavior referrals/disciplinary infractions in the classroom	√		77
Fighting in school	√		86
Referrals for disruptive behavior	√		75
Interest in extra curricular activities		√	96

Table 3
Counselors' Perceptions of Student Behavior Issues: Student Social Interaction N = 52

Student Behavior: Student Social Interaction			
Behavior	Increase	Decrease	% Participants
Interaction with school administrators	√		91
Responsiveness to teachers		√	84
Interaction with school counselors	√		100
Social interaction with peers	√		82
Responsiveness to peers	√		84

Table 4
Counselors' Perceptions of Safety and Facilities Management N = 52

Safety and Facilities Management			
Behavior	Increase	Decrease	% Participants
Class facilities and resources		√	91
Faculty/staff training	√		100
Safety regulation compliance	√		95