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Perceptions of High School Students Relocated to Suburban Houston as a Result of Hurricane Katrina

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Abstract

Thousands of displaced families with children and adolescents took residence in Houston, Texas, after Hurricane Katrina in 2005. This study examined the perceptions and needs of relocated high school students regarding their integration into a large suburban school district in Houston, Texas, and the symptoms of stress that they experienced. The results of our study included the common indicators of the students' experience of relocating after Hurricane Katrina which were sleeplessness, unexplained anger, and headaches. The results of a needs assessment indicated that students wanted to be able to access help when needed, to obtain information about college choices, and to set and carry out goals for the future.

Perceptions of High School Students Relocated to Suburban

Houston as a Result of Hurricane Katrina

The evacuation of families to Houston, Texas, after Hurricane Katrina called upon school districts to intervene with families and children on an unimaginable scale.

Administrators, school counselors, teachers, and other school district personnel pooled resources to meet the needs of students who had been uprooted from their homes and schools and who often had experienced a sense of fear and abandonment immediately after the hurricane. Simply assisting students and families with the basic necessities of living was an overwhelming task. As the students settled into their new schools, school personnel began to evaluate the emotional and psychological needs of the evacuees in order to develop interventions appropriate for large numbers of traumatized children. Our work with adolescents who were displaced and then integrated into one large suburban school district in northwest Houston, Texas, provided interesting information about the needs and perceptions of these students.

The Aftermath of Natural Disasters

An abrupt move is an extremely high stressor for children and adolescents and can cause acute symptoms such as confusion, nightmares, sleep disturbances, depression,

and acting out behaviors (Norris, 2005; Norris, 2002; Warheit, Zimmerman, Khoury, Vega, & Gil, 1996). When the move is precipitated by a natural disaster, the effects can be critical. Although individual responses to disaster vary greatly, some children may develop Post Traumatic Stress Disorder (PTSD), characterized by a persistent re-experiencing of the event; numbing of responsiveness that was not present prior to the event; increased arousal; duration of symptoms for more than one month; and impairment in important areas of functioning due to the symptoms (*DSM-IV-TR*, 2000). In some studies, youth exhibited elevations in deviance and delinquency after a disaster (Shaw, et al., 1995; Shaw, Applegate, & Schorr, 1996). Extensive studies of children and adolescents were conducted after Hurricane Andrew which indicated high levels of psychological distress among youth after the disaster (Garrison, Bryant, Addy, Spurrier, Freedy, & Kilpatrick, 1995; La Greca, Silverman, Vemberg, & Prinstein, 1996; Shaw, et al.; Warheit, et al.). Other studies (Eth, 1992; Klingman, 1987; Pynoos & Nader, 1988; Weinberg, 1990) investigated the most effective interventions for traumatized children.

School based interventions may be the most effective for children and adolescents because they promote a sense of shared experiences (Pynoos & Nader, 1988). Simply having many children who have experienced a disaster in one place supports the practical side of school-based interventions. When schools intervene a clear message is sent to families that students are expected to resume school attendance. Some of these models utilized classroom teachers in the intervention while others enlisted the assistance of community mental health professionals to work directly with students in their classrooms (Eth, 1992; Klingman, 1987; Weinberg, 1990). The specific methods of the interventions varied, but the purpose was to increase the cognitive understanding of the trauma, to

allow expression of thoughts and feelings, and to generate coping methods that would assist students' return to normal routines.

Our study investigated the perceptions of adolescents who were displaced from their homes and integrated into new schools in another city as a result of a natural disaster. We asked students how they felt about their new schools and the assistance they received from school personnel. Our study has the potential to inform school districts about how to best assist adolescents who have been traumatized. The literature indicates that schools may be able to offer some of the most effective interventions to children who have experienced disaster related trauma. The following questions focusing on school interventions and traumatized adolescents were answered in our study: (a) What do traumatized adolescents need from their schools when they have been uprooted from their own homes and neighborhood schools? (b) What are some of the specific symptoms of adolescents who have experienced a natural disaster? (c) How do the perceptions of adolescents regarding their new schools inform school personnel about how to assist traumatized students? These were the research questions we asked as we studied the symptoms and perceptions of students who evacuated from New Orleans to a Houston suburb after Hurricane Katrina.

In our work with adolescents who were relocated after Hurricane Katrina to a suburban school district in Houston, Texas, we looked for the symptoms that students were experiencing and their perceptions of how they were integrated into their new schools and communities. Surveys were administered to give us insight into the symptoms, needs, and perceptions of the displaced students. Interviews with students and

school personnel assisted us in our understanding of which school interventions seemed to be particularly effective.

Method

Participants

The participants in our study were 161 high school students left homeless as a result of Hurricane Katrina, which hit New Orleans in September of 2005. These students relocated to the North Houston suburbs and enrolled in a large and fast-growing, suburban school district. All relocated students who were enrolled in school the day the permission slips were sent home were able to participate in the study with the proper parent permission. Due to the large number of relocated students enrolling each day at the school, the permission slips were only sent home on one day. The students who were enrolled and present on that particular day made up the sample for this study. The surveys were administered in December, 2005. The total number of high school students relocated as a result of hurricane Katrina and enrolled in the school district at the time the survey was administered is unknown due to daily arrivals and departures. The sample was composed of 161 high school students who were ninth graders (50), tenth graders (32), eleventh graders (44), and twelfth graders (35). There were 82 female students and 79 male students. The entire sample was comprised of African American students.

Instruments

We constructed two survey questionnaires consisting of several sections. They were labeled Survey A (Needs Assessment) and Survey B (Perception Survey). The first section of Survey A requested the following demographic information: grade classification, gender, and school currently attending. The second section consisted of a

5-point Likert type scale consisting of 20 items designed to reflect anxiety symptoms and somatic complaints that the students might be experiencing and to what degree students' needs were being met. Responses ranged from strongly agree to strongly disagree. The third section included open-ended questions dealing with the difficulties the students continued to face and how the school could better meet their needs. Survey B included demographic information in the first section as well as a 5-point Likert format consisting of 18 items designed to determine to what degree the students felt they were being accepted in Houston and more specifically on the high school campus they attended. Responses ranged from strongly agree to strongly disagree. We included two open ended questions in Survey B asking specific ways the students were made to feel welcome and advice they would share with others in a similar situation.

Procedure

One of the researchers wrote a proposal and presented it to the research department of the school district for approval. Upon acknowledgement of approval, she contacted each principle of the seven high schools in the district for permission to administer the survey to the students relocated as a result of Hurricane Katrina. After parental permission was obtained, both surveys were administered on each high school campus to groups of the Katrina students during their advisory classes. We gave each group identical sets of directions in an equivalent setting with one of the researchers administering the surveys to the students personally to insure consistent results across all campuses. No identifying information was requested on the survey in order to maintain students' confidentiality.

Results

Results of Symptoms Assessment

Students were asked what specific symptoms they were experiencing since relocating to the Houston area (see Table 1). The students reported somatic complaints and symptoms including those related to anxiety, depression and PTSD. The most common indicator was sleeplessness which was reported by 64% of the students followed by unexplained anger (52%) and headaches (48%).

Table 1

Results of Symptoms Assessment (N = 161)

| Symptom | Percentage who agree or strongly agree |
|------------------------|--|
| Sleeplessness | 64.4% |
| Unexplained anger | 52.2% |
| Headaches | 48.4% |
| Apathy | 47.2% |
| Inability to focus | 45.3% |
| Sudden bouts of crying | 34.8% |
| Social Isolation | 26.1% |
| Loneliness | 22.4% |
| Dizziness | 20.5% |
| Irrational fears | 17.4% |

Results of Needs Assessment

Students were asked what their specific needs were from school personnel as a result of being relocated to Houston (see Table 2). The highest response rates were as follows: to get help when needed regarding physical, emotional, and educational needs (81.4%), get information about college (77.6%), and set and carry out daily, as well as long term personal and career goals (76.0%).

Table 2

Student Needs (N=161)

| Needs | Percent agree or strongly agree |
|--|---------------------------------|
| Get help when I need it | 81.4% |
| Learn about colleges and community service | 77.6% |
| Set and carry our goals | 76.0% |
| Select the most appropriate courses in school | 73.9% |
| Get connected with other relocated students | 72.7% |
| Learn about opportunities for extracurricular activities | 66.5% |
| Make friends | 60.2% |
| Understand people who are different | 55.9% |
| Cope with pressure | 49.1% |
| Become less shy and nervous | 46.6% |

Results of Perceptions Survey

Multivariate analysis of variance (MANOVA) was used to determine if the seven schools differed in a statistically significant manner in students' perceptions of their new schools, using a nominal alpha level of 0.05, on eighteen measures – all measures of perceptions of whether various needs of the students were being met. The needs included perceived degree of acceptance from various others; whether physical, emotional, and educational needs were being met; school attendance attitude; and the desire to stay in or leave Houston (see Table 3). In this analysis there was one independent variable, school, with seven levels and there were eighteen dependent variables each involving various perceptions of students. The purpose of MANOVA was to determine whether there were statistically significant differences among the seven groups (Gall, Borg, & Gall, 1996).

MANOVA produced four test statistics: Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root. These test statistics were converted to F ratios. These F ratios were used to determine statistical significance. The first three F ratios were not statistically significant at the .05 level, therefore analysis of variances (ANOVAs) were not performed on each of the eighteen dependent variables. The most salient data from Survey B (Perception Survey) revealed that there were no significant differences among schools in students' perceptions of how they were accepted by peers, teachers, and the community in general; how their physical and emotional needs were being met; and whether or not they would like to continue attending their current schools.

Table 3

Perception Survey

| Questions | Percent agree and strongly agree |
|--|----------------------------------|
| have been totally accepted into the Houston community | 44.8% |
| have been minimally accepted into the Houston community | 40.4% |
| have not at all been accepted into the Houston community | 24.8% |
| have been totally accepted by the teachers | 75.8% |
| have been minimally accepted by the teachers | 23.0% |
| have not been accepted at all by the teachers | 6.9% |
| have received the help needed for physical needs | 69.0% |
| have received the help needed for emotional needs | 40.4% |
| have received the help needed for educational needs | 60.9% |
| have been totally accepted by the students | 52.8% |
| have been minimally accepted by the students | 32.3% |
| have not been accepted at all by the students | 13.7% |

| | |
|--|-------|
| look forward to attending current school most days | 39.8% |
| dread attending current school most days | 40.4% |
| like current school and want to stay here | 20.5% |
| like the Houston area and would like to live here | 12.4% |
| want to go back to home school as soon as possible | 72.7% |
| want to go back to home town as soon as possible | 73.9% |

Discussion

Although there were no statistically significant differences present in the analyses, many themes emerged in the data and evolved during our work with the students. Students were asked what they specifically wanted help with since being relocated to Houston. Eighty-one percent of them wanted to know how to get help when they need it. When the survey was designed, we embedded this question with the thought that it might be particularly relevant for Katrina survivors. During the process of working with the students, we came to understand how important getting help was as many of them had no way out of New Orleans, no place to go, as well as no belongings. The students and their families were helpless and powerless for many days or even weeks. Students also wanted to find out about colleges and community experience (77%), and 76% of the students wanted to learn how to set and carry out goals for graduating and post-secondary education. While working with the students, we were pleased to discover that many of them were ready to move ahead with their studies and their lives and not let the tragedy impede their futures. This response is a common observation after disasters and is referred to as “posttraumatic growth” (National Center for PTSD). The students’

responses on the surveys assisted us in our understanding of their symptomology and perceptions of their situation.

Survey A (Needs Assessment) included two open-ended questions: (a) List three challenges you continue to face since the hurricane and (b) What are some ways the school can help promote your success? The first question elicited responses around several specific themes. The theme of loss included the loss of family and friends, loss of basic needs, loss of community, and loss of social status. The theme of coping included coping with racism, cultural adjustments, and worry about the future. The second question also elicited responses around the themes of how students would like to be treated and what interventions might be helpful. The students indicated they would like school staff to take time to talk to them, to treat them the same as the Houston students, and to show them a caring attitude. Students identified interventions that would be helpful including exempting the evacuees from final exams and from paying for summer school, hosting a job fair, allowing students to continue in their extra-curricular activities from New Orleans, helping with academics, and allowing them to meet with other evacuees in their schools.

Interventions

Since there were no statistically significant differences present in the analysis of the Perceptions Survey, it appears that the services to the evacuees were congruent among the seven high schools. The analysis may indicate strength in the organization and the preparation of the district in crisis management. The school district registered over 3,000 evacuees, and 600 of the evacuees were high school students. As the long term nature of the situation became apparent, the school district personnel realized that they

were going to provide much of the emotional and physical assistance the families needed. Therefore, additional itinerant counselors were hired to work specifically with the Katrina evacuees in the high schools. In addition, the entire staff of district counselors received training in how to work with children traumatized by natural disaster so they could better assist the evacuees' needs.

Counseling interventions were designed and implemented based on the counseling needs assessment and individual counseling session with the evacuees. During the initial counseling sessions, information was gathered about the students' physiological and psychological needs. Referral information for housing, financial aid, medical assistance and psychological services was made available to help students and families access the help they needed and to make contact with agencies to ensure that physiological needs were being met. The itinerant counselors met weekly with all relocated students in counseling sessions to assess their emotional needs and to increase their cognitive understanding of the trauma. Additionally, campus counselors monitored academic progress and assisted with the concerns of the new students.

Research indicates that the school environment plays a crucial role in the process of recovery for students who experience crisis and trauma (Pynoos & Nader, 1988). Therefore, it is important for school personnel to be aware of the disturbing impact of the trauma and to understand the emotional needs of the students. For this reason each high school campus implemented interventions in order to ensure that students felt welcomed and knew what was expected of them. The schools enrolled the students without records, matching their schedules if they had attended school before the hurricane and offering classes at the appropriate level. Since shot records were not

available all students were admitted without them and then were advised where they could receive free shots. All the high schools in the district had an assembly for the relocated students to address school policy, dress code, introduce staff, and disseminate other pertinent information. Some of the schools distributed school shirts and free football tickets to facilitate students' assimilation on the campuses. Two of the high schools had a dinner for the parents, offering information about the campus and community activities and giving parents an opportunity to meet and network with each other. Teachers were alerted to the symptoms of PTSD and given recommendations and interventions to assist with a smooth transition into each classroom. One campus evaluated the top three needs of the displaced students and started a psycho-educational group that met once a week after school to address those needs. The group was named K.I.T.E.S. (Kids Interacting through Experiences Shared).

Conclusion and Recommendations

Responses from the surveys informed us about the nature of interventions in the school setting that might be meaningful for the future. When schools make adjustments for unforeseen circumstances, the outcomes for students can be positive. The school district responded to students who were traumatized by a natural disaster in a variety of ways that were helpful. Some of the beneficial responses included: (a) making adjustments to registration procedures and class scheduling, (b) providing students and families with information about the school system through assemblies and parent meetings and with small tokens of acceptance into that system such as tee shirts and football tickets, (c) training all school counselors in approaches to helping students who have experienced trauma, (d) hiring additional counselors to meet the high demands of

the evacuees and their families, and (e) educating teachers about the signs of PTSD. In addition, the counselors assessed the needs of the students through surveys and in face-to-face meetings to provide the best services possible to them. Interventions were carefully planned on each campus according to the particular needs of the evacuees using group and individual counseling as well as community service projects.

These interventions can serve as a model for future crisis situations in other school districts. The key to the success of the interventions in this large suburban school district was the large scale planning and implementation of the interventions beginning with immediate decision making at the district level and moving quickly to the administrative staff at the schools. Providing support for hundreds of unanticipated high school students who were experiencing the effects of trauma was a difficult task made easier by the collaboration of the school personnel in the entire district.

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