

CONTRIBUTION OF THE SOCIAL SCIENCES TO EMERGENCY MANAGEMENT

Betty Hearn Morrow and Dr. Walter Gillis Peacock, Co-Directors,

Lab for Social and Behavioral Research,

International Hurricane Center

morrowb@fiu.edu

Dr. Hugh Gladwin, Director

Institute for Public Opinion Research,

Florida International University

Nicole Dash, Research Associate

International Hurricane Center

Jennifer Wilson, Doctoral Candidate

Department of Sociology and Anthropology

Florida International University

Abstract

Using examples from on-going research projects, a panel of social scientists affiliated with the International Hurricane Center discuss the contribution or their work to the field of emergency management. For the most part, emergency managers are familiar with what needs to be done in order to safeguard their communities and citizens. Implementation of these initiatives, however, is a complex affair involving human response with all of its complexities. Effective decisions are based on an understanding of the social and economic circumstances of people's lives, as well as what is known about human behavior. Current research projects to be discussed to illustrate the on-going contribution of social science include: 1) How knowledge about social and economic factors associated with vulnerability can be incorporated into community vulnerability maps; 2) the development of decision trees to explain household evacuation decisions; 3) the effects of actual vs. virtual experience of return delay on future evacuation decisions; 4) results from the Florida Statewide Mitigation Survey; and 5) the professionalization process of the field of emergency management.

Crisis Management Preparedness of School Districts in Three Southern States

Susan M. Smith, Ed.D., M.S.P.H., Tyler A. Kress, Ph.D.,
Eric Fenstemaker, M.S., Michael Ballard, Ph.D., Greg Hyder, M.S., Ed.S.
The University of Tennessee, Department of Health and Safety Sciences
1914 Andy Holt Avenue Knoxville, TN 37996-2710
emails: smsmith@utk.edu, kress@utk.edu

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Abstract

The following paper describes the results of a baseline study to assess the status of crisis management preparedness in public school districts in three southern states. Self-reported responses were collected by distributing a twenty-two question self-reporting survey to all school districts and systems in the states of Tennessee, North Carolina, and Georgia. Threats by students were indicated as requiring district team activation by 40% of responding districts. This baseline study indicated that 95% of districts responding have some type of district crisis management plan, 77% have a district crisis management team, and 88% have a part- or full-time director designated for crisis situations. While these initial findings sound promising, the low number of districts (less than 50%) self-reporting at least one full day of training in the last year and no full-scale drill is indicative of a very low level of crisis preparedness. This lack of preparedness reported in combination with the relatively high level of crisis incidents, such as student deaths, violence (fights), weapons on campus, and student threats, gives rise for concern, and school districts should pay special attention to increasing future training efforts and performing more full-scale drills. Overall, crisis plans should be improved in order to ensure adequate school district crisis preparedness.

Introduction

Calm, responsible, reactions by personnel are vital to the effective management of an emergency crisis affecting a school. Essential to the safety and welfare of every school campus is the preparation and implementation of a practical and workable crisis management plan. This plan must incorporate locations and routes for evacuation and sheltering in-place for each school building in the school district or

system. Every school district and school within the district should also form and maintain a crisis management team that is competent, capable, and adequately trained to handle an emergency situation. This article discusses the results of a study designed to assess the current status of crisis management planning in school districts and systems in three southern states in the United States.

In 1996, Batsis reported that school crisis events are not unusual. Children in elementary and secondary schools at an increasing rate are likely to experience the death of a family member or close friend, witness a violent death, or themselves be a victim of violence. The increased number of incidences and an increased awareness of such events has compelled school personnel to find new ways of managing crisis situations.

With minimal resources allocated to fund long-term crisis prevention programs at the elementary, middle, and high school levels, school staff predominantly handle crises as they arise, making decisions in many cases without benefit of a comprehensive management plan. Without a clear and well-practiced plan and without identifying predetermined roles, district and school staff are more likely to respond to school crisis chaotically. Thus, the development, practice, and implementation of a school crisis prevention and management plan is particularly crucial in supporting the emergency management four-pronged program of mitigation, preparedness, response, and recovery. This helps ensure the health and safety of children and adults attending or working for schools within the United States (Batsis, 1996).

Kopka (1997) reported that, according to the National School Safety Center study (1995), many emergencies occur each day in schools throughout the country. School crisis situations can range from a child falling and being injured on the playground, to slanderous rumors being circulated about a teacher, to coping with a mentally unbalanced individual entering a school building with the intent of harming children. In each case, school officials must rapidly respond in a manner that ensures the safety of students and staff (Kopka, 1997).

Since school crises and emergencies occur rapidly, school officials without a practiced crisis management plan may find themselves dazed, confused, and wondering what to do next. While a sense of disorientation is a normal response to an emergency, school officials who have properly planned for just such a contingency are in a much better position to respond rapidly in an appropriate and sensitive way (Hill & Hill, 1994).

Among school children, traumatic events can precipitate short-term crisis reactions, whether they occur on or off school grounds. Responses include reactions ranging from sadness and fear to anger or shame; behavioral reactions manifested either as internalizing or externalizing symptoms; relationship difficulties exhibited through withdrawal or anxious attachment behaviors; school

difficulties in attention and performance; and somatic symptoms. Specific responses depend, among other factors, on age and child developmental level.

If a school-related trauma is not adequately addressed at school, temporary disruptions in a child's ability to concentrate can create a downward spiral in academic performance. Likewise, how school officials manage a crisis in the short-term can negatively affect longer-term functioning. Staff morale and school climate conducive to learning may be seriously impaired by unresolved crisis situations. Prevention models for crisis situations emphasize a preference for interventions in the classroom and school, by adults most familiar with and identified with the setting. One strong outcome predictor for a traumatized child is the ability of significant nurturing figures to deal with the traumatic event. With sufficient support and assistance, the traumatized child can gain new insight, skills, relationships, and an awareness of inner strength from having coped successfully with a school crisis (Hoffman, 1996).

To maximize the likelihood that children will adapt successfully to school crises, school officials should develop and implement an organizational crisis management plan that anticipates potential problems and creates mechanisms for resolution. The intervention model helps schools prepare for school crisis situations by establishing trained school crisis management response teams and identifying intervention strategies and post-intervention activities appropriate to the particular school. Three critical levels of organization are designed in the model.

The first and broadest level is a regional resource group. Regional planning and implementation allow sharing of expertise and resources across school district boundaries and encourage active involvement of professionals from disciplines typically not presented in schools. Developing regional policies and procedures also facilitates a coordinated response to large-scale disasters, such as when a tornado strikes contiguous communities (Kline, Schonfeld, & Lichtenstein, 1995).

The second level focuses on district resources. A district team ensures that crisis intervention plans and activities from individual schools comply with existing district policies. The team also can advocate to change district policies based on recommendations from regional planning groups. Additional functions include facilitating the sharing of clinical staff and resources among schools in a crisis; coordinating district-wide response when a crisis is not restricted to one school; ensuring that regional community mental health resources are sufficient to accommodate student and staff needs in a crisis; overseeing the training of school-based staff; and ensuring each school has a well-trained and fully operating crisis management response team (Kline, Schonfeld, & Lichtenstein, 1995).

Implementation of the school crisis management plan involves the third level--the school crisis management response team. The model and training protocol enables crisis management response teams to provide most crisis-related services to their

own students. Staff within a school are most familiar with their students and staff, so they are uniquely suited to provide support, assistance, and long-term follow-up that are the cornerstone of an effective crisis management plan (Kline, Schonfeld, & Lichtenstein, 1995).

The literature reveals that school officials can do much to improve their management of school crisis situations through advance planning and constantly evolving crisis plans. Also, school officials must establish a preventive and systemic approach to crisis management. Thus, this approach involves being proactive through group responsibility and preparedness. Most significantly, it involves assisting children in developing psychological resiliency, and schools in developing organizational resiliency to risk factors imposed by serious or repeated school crisis events. Many researchers indicate that this goal can be accomplished through the use of a crisis intervention model and the development of regional, district, and school crisis management response teams that work to implement the model and to support the entire school community before, during, and after school crises (Kline, Schonfeld, & Lichtenstein, 1995).

Purpose

The primary purpose of the baseline study reported in this article was to assess the status of crisis management and emergency planning in public school districts and systems in the States of Georgia, North Carolina, and Tennessee. After benchmarking with previously available surveys, a survey instrument was developed by an expert team and further revised by another group of experts. The team of experts included specialists in areas of emergency management, emergency preparedness, school safety, and crisis management planning. The second group of reviewers included directors of state emergency management agencies, researchers from The University of Tennessee, the executive director of the National School Safety Center, and the director of the Center for the Prevention of School Violence. The questionnaire was designed specifically to identify what types of crisis events have caused a district team to be activated, and to determine the frequency of training for these teams. Types of crises and emergencies that were perceived to be of most importance to school districts were incorporated in the questionnaire.

Method of Data Collection & Analysis

The survey was sent to all designated school district offices of each public school district or system in the States of Georgia, North Carolina, and Tennessee (135 districts from Tennessee, 117 districts from North Carolina, and 180 districts from Georgia). Of those districts receiving questionnaires, 98 districts (73%) responded from Tennessee, 64 districts (56%) responded from North Carolina, and 95 districts (53%) responded from Georgia, for a total response of 59.5% of the 432 mailed surveys. When data were analyzed, frequencies were reported in raw actual

numbers and percentages. Along with the actual count, an expected count, standard residual, and an adjusted residual were calculated. An adjusted residual of more than +2.0 and less than -2.0 were considered significant. Chi-square analysis was performed where appropriate to demonstrate levels of significant differences using a .05 level of significance.

The self-reporting questionnaire included questions concerning 1) the status of crisis management plans, 2) what crisis events are addressed in the planning, 3) the status of crisis management response teams, and 4) the frequency of training for these teams. Demographic characteristics, including type, governance, student enrollment, and the number of schools in the district or system, were collected as well.

Results

Of those 258 districts responding to the survey, 14% self-reported being from an urban area, 15% from a suburban district, 67% a rural district, and 2% from districts including suburban and urban areas. Of those districts responding, 38% were from Tennessee, 25% from North Carolina, and 36% from Georgia. Sixty-five percent of the district systems responding represented county school systems. Nineteen percent of the district systems responding represented city systems, and 12% were combined city/county systems. Two percent were special state or federal school districts or systems. Sixty-four percent of the districts responding reported student enrollments that exceed 3,000 students.

Of the 258 districts responding to the question of having a district or system-wide crisis management plan, 244 districts (95%) responded that they had a crisis management plan, only 12 or 4.7% responded that no plan existed, and 2 responded that they did not know if there was a plan. Of the 95% with plans, 10% had adopted plans in the last 6 months, an additional 18% in the last year, 26% more in the last 2-3 years, and a final 28% within 4-5 years. Seventy-seven percent of the districts responded that their district had an ongoing crisis management advisory, planning, or action team. Twenty-one percent responded that no district crisis team existed in their district. Two districts responded that they did not know whether the district had a team or not. Two hundred twenty-six districts (88%) responded that their district had a designated crisis director/coordinator responsible for the management if a crisis occurred. Twenty-seven (10%) responded that no district director was designated and 2 districts responded that they did not know.

One way to assess the future effectiveness of a district crisis management system plan and team is to measure the frequency of ongoing training and full-scale drills. To provide information concerning the effectiveness of the existing crisis management systems in school districts, information was requested concerning the frequency and time that had passed since the last full day of crisis training at the

district level, and when the last full-scale drill was conducted at a district level. The response from districts concerning one full day of training indicated that only 47% of districts had conducted one full day of training at the district level in the last year. Approximately 12% of the districts had responded that one day of training had occurred more than one year ago. Twenty-six percent indicated that their district had never conducted one full day of training. These results indicate a low level of crisis management preparedness. The response from districts concerning a full-scale drill indicated that only 46.5% of districts had conducted one full-scale drill at the district level in the past year. An additional 7.5% of the districts responded that a full-scale drill had occurred yet it was more than one year before. Almost 31.5% indicated that their district had never conducted a full-scale drill, and 10.5% responded that they did not know if a full-scale drill had occurred. The low level of districts who have conducted a full scale drill confirms a low level of crisis management preparedness. Tables I and II present some responses.

Table I. Provided One Full Day of Training at District Level

Responses by School District	Frequency	Percent
Within last six months	78	30.2
1 Year	44	17.1
2-3 Years	22	8.5
Less than 5 Years	7	2.7
Greater than 5 Years	1	0.4
Don't Know	25	9.7
Not Applicable	6	2.3
Never	67	26.0
Total Responses to Questionnaire	250	96.9
Missing Responses	8	3.1
Total Questionnaire Responses	258	100

Table II. Conducted a Full-Scale Drill at the District Level

Responses by School District	Frequency	Percent
Within last six months	71	27.5
1 Year	49	19.0
2-3 Years	12	4.7
Less than 5 Years	4	1.6
Greater than 5 Years	3	1.2
Don't Know	27	10.5
Not Applicable	3	1.2
Never	81	31.4
Total Responses to Questionnaire	250	96.9
Missing Responses	8	3.1
Total Questionnaire Responses	258	100

A specific survey question asked each respondent to indicate which types of crises had caused the district crisis team to be activated in their district. Districts indicated specific crises, including: 1) student deaths, 2) faculty deaths, 3) violence (fights), 4) hostage situation, 5) weapons on campus, 6) transport accident, 7) school emergency (fire, tornado, bombing), and 8) threats by students. Districts self-reported that 62% of district teams had responded to at least one incident involving a student death. No information was requested on the cause of the death. Fifty percent of districts self-reported activating a team due to violence such as a fight, and 47% of responding districts indicated that district team activation was required due to weapons on campus. Threats by students were indicated as requiring district team activation by 40% of responding districts. Table III, entitled "Types of Crisis Reported to Have Caused District Team Activation," provides further detailed information concerning the types of crises requiring district team activation.

Returned responses were analyzed by state using Chi Square to determine if significant differences existed between districts from different states. When respondents were asked to indicate when they had last conducted one full day of training at the district level, a significant difference was found at the .05 level between districts from different states. Tennessee districts were found to have more districts than expected trained within the last full year as compared to Georgia and North Carolina. North Carolina had more than expected in the 2-3 year time period, and Georgia had less than expected in those districts responding with training within the last full year. No significant difference was found in responses from the states of Tennessee, North Carolina, and Georgia in the number of districts reporting when they last conducted a full scale drill at the district level.

A significant difference was also found in responses of districts from the three states when asked if the district team had ever responded to a crisis involving a student death (a Chi Square test and a .05 level of significance was used for all significance tests reported on in this paper). When assessing responses using the adjusted residual of over +2, North Carolina was found to be higher than expected in number of districts with team responses to student deaths. A significant difference was found in responses of districts from the three states when asked if the district team had ever responded to a crisis involving a faculty death. When assessing responses, using the adjusted residual of over +2, North Carolina was found to be higher than expected in the number of districts with team responses to faculty deaths, with an actual count of 39 districts and an expected count of 26 districts. A significant difference was found in responses of districts from the three states when asked if the district team had ever responded to a crisis involving a violent fight. With a response rate of 59%, Tennessee had more districts reporting responses to violent fights than the districts of North Carolina and Georgia, reporting 50% and 48%, respectively. A significant difference was

Types of Crises Causing District Crisis Team Activation	Yes		No		Don't Know		Left Blank		Total For Question (#)	Total For Question (%)	Missing In System (#)	Missing In System (%)	Total (#)
	#	%	#	%	#	%	#	%					
Student Deaths	160	62.0	68	26.4	4	1.6	15	5.8	247	95.7	15	5.8	258
Faculty Deaths	98	38.0	97	37.6	4	1.6	45	17.4	244	94.6	14	5.4	258
Violence (fight)	130	50.4	67	26.0	10	3.9	38	14.7	245	95.0	13	5.0	258
Hostage Situation	9	3.5	153	59.3	7	2.7	75	29.1	244	94.6	14	5.4	258
Weapons on Campus	121	46.9	78	30.2	7	2.7	40	15.5	246	95.3	12	4.7	258
Transport Accident	78	30.2	100	38.8	8	3.1	58	22.5	244	94.6	14	5.4	258
School Emergency	96	37.2	102	39.5	6	2.3	43	16.7	247	95.7	11	4.3	258
Threats by Students	104	40.3	91	35.3	12	4.7	40	15.5	247	95.7	11	4.3	258

Table III. Types of Crises Reported to Have Caused District Team Activation

found in responses of districts from the three states when asked if the district team had ever responded to a crisis involving a hostage situation. Only a small number of districts reported activation of a crisis response team due to a hostage situation, with 5% responding in Tennessee, 6% in North Carolina, and 1% in Georgia.

Responses of districts from the three states were found to be significant when districts were asked if the district team had ever responded to a crisis involving weapons on campus. With the highest rate, Tennessee reported 57% of those districts responding in the survey (representing 51 districts), North Carolina reported 48% (representing 31 districts), and Georgia reported 42% (representing 39 districts). A significant difference was found in responses of districts from the three states when asked if the district team had ever responded to a crisis involving a transport accident. Twenty-five districts from Tennessee (28%), twenty-three districts from North Carolina (36%), and thirty districts (33%) from Georgia reported activation due to a transport accident. No difference in districts from different states was found with respect to activation of a district crisis team due to a school emergency such as a fire, tornado, or bombing.

A significant difference was found in responses of districts from the three states when asked if the district team had ever responded to a crisis involving threats by students. Tennessee reported 46 districts (51%) responding to threats by students. Of North Carolina districts responding, only 26 districts (41%) indicated responding to threats by students, and 32 (35%) of districts in Georgia indicated responding to threats by students.

Conclusions & Recommendations

Ninety-five percent of districts responding have some type of district crisis management plan. Seventy-seven percent have a district crisis management team, and 88% have a part- or full-time director designated for crisis situations. The low number of districts (less than 50%) self-reporting at least one full day of training in the last year and no full-scale drill represents a very low level of crisis preparedness. This lack of preparedness reported in combination with the relatively high level of crisis incidents, such as student deaths, violence (fights), weapons on campus, and student threats, gives rise for concern, and districts should pay special attention to increasing future training efforts and performing more full-scale drills. For those districts responding that no district plan or team exists, obviously even more basic plan development and team formation activities must be initiated prior to the initiation of any training. For districts in states reporting a high level of past crises, such as weapons on campus, violent acts (fights), and threats by students, these results must serve as motivators to increase violence prevention activities, as well as to encourage rapid compliance with the need to constantly update, practice, and exercise plans to ensure rapid and effective response to crisis situations. Both prevention and crisis management require staff and monetary resources to be successful. Funding levels for these should be increased. Overall, crisis plans should be improved in order to ensure adequate school district crisis preparedness. Levels of crisis training, drills, and long-term prevention efforts need to increase in order to decrease the frequency of crisis team activation in the states' school districts participating in this baseline study.

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