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David J. Alba
Central Falls School District, dalba72@gmail.com

Robert Gable
Johnson & Whales University, Robert.Gable@jwu.edu

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Crisis Preparedness: Do School Administrators and First Responders Feel Ready to Act?[1]

David J. Alba
Central Falls School District
Educational Leadership Doctoral Program
Feinstein Graduate School
Johnson & Wales University
(401) 578-7981

Robert K. Gable
Educational Leadership Doctoral Program
Feinstein Graduate School
Center for Research & Evaluation
Johnson & Wales University

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Crisis Preparedness: Do School Administrators and First Responders Feel Ready to Act?

David J. Alba
Robert K. Gable

Johnson & Wales University

Abstract

A majority of public school districts have developed crisis preparedness plans; however, policy and procedural implementation is inconsistent across schools, districts, and states. Furthermore, while the literature regarding best practice in school safety recommends conducting a variety of drills in conjunction with first responders, there is little research literature that examines the perceptions of the personnel responsible for the planning and implementation of these types of collaborative efforts (Graham, Shirm, Liggin, Aitken, & Dick, 2006; Kano & Bourque, 2007; United States Government Accounting Office, 2007).

This study explored the perceptions of 60 Rhode Island school principals, three district-level administrators, and three first responders (e.g., police, fire) in regards to school safety through addressing the following research questions: 1) Is there a significant difference in the perceptions of urban, urban ring, and suburban principals with respect to crisis preparedness training? 2) Is there a significant difference in perceptions of elementary, middle, and high school principals with respect to crisis preparedness training? 3) What are the perspectives of district leadership and first responder personnel with respect to the implementation of crisis preparedness training?

Perceptions of school crisis preparedness were examined using survey data. ANOVAs indicated that suburban schools reported greater perceptions of preparedness than urban districts ($F = 7.17$, $p = .002$) with regards to having a written crisis plan. Elementary schools reported greater external security measures than high schools ($F = 3.17$, $p = .049$); high schools reported greater internal security measures ($F = 11.06$, $p = .001$) and drills with first responders than elementary and middle schools ($F = 6.09$, $p = .004$).

Themes that emerged from interviews with district-level leadership and first responders were the desire for coherence among procedures with guidance from the State level. Ambiguity of roles and responsibilities in the event of a crisis were noted in addition to gaps in communication and collaboration both within and among organizations.

Implications for educators regarding a relationship between the perceptions of preparedness to respond to a school crisis that requires a coordinated, multi-agency effort, and the collaborative training between school districts and their first responders were discussed.

Statement of the Problem

The National Center for Educational Statistics reported that in the 2008-09 school year, there were a total of 55.6 million students enrolled in schools nationwide (Snyder, Dillow, & Hoffman, 2010). During this time 75% of those schools reported at least one violent crime occurring on school grounds amounting to 26 violent crimes per 1,000 students at school (including 38 school-associated violent deaths) compared to 20 violent crimes per 1,000 students away from school (Robers, Zhang, Truman, & Snyder, 2010). Compounding this is the fact that natural disasters such as fires, hurricanes, floods and, tornados, as well as manmade disasters, including acts of terror, can strike at any time (Allen, Lorek, & Mensia-Joseph, 2008). "In the face of such risks, schools need to manage emergency events to prevent, or minimize, physical and psychological trauma to their students and staff, as well as the surrounding communities" (Kano & Ramirez, 2007, p. 400).

Written emergency management plans, which address multiple hazards, were evident in an estimated 95% of all U.S. school districts; however, only 52% update their plans annually (GAO, 2007). Auf de Heide (1989) noted that in order to be effective, written plans must be accompanied by training programs and resources. Yet organizations frequently think they are prepared as long as they have a written plan in place (Carley & Harrald, 1997). Coordination among local law enforcement, emergency medical services, and performance of regular school emergency drills are important deficits noted in many school disaster plans, especially those located in rural areas (Graham et al., 2006).

Purpose of the Study

The purpose of this research study was to explore the perceptions of building principals with regards to crisis preparedness within their schools along with the perceptions of Rhode Island school district leadership and their cities and towns first responders as to their collaborative planning and practicing of emergency drill procedures.

This mixed-methods study, which utilized a concurrent embedded strategy, investigated the following research questions:

1. Is there a significant difference in perceptions of rural, suburban, and urban administrators with respect to crisis preparedness training?

2. Is there a significant difference in perceptions of elementary, middle, and high school administrators with respect to crisis preparedness training?

3. What are the perspectives of district leadership and first responder personnel with respect to the implementation of crisis preparedness training?

To quantitatively explore the principals' perceptions of building safety, and their implementation of crisis preparedness plans, and procedural drills (RQ1 and RQ2), 60 principals completed a Zoomerang survey questionnaire entitled, *Principal Perceptions of School Safety & Preparedness Survey* (*PPSSPS*). Concurrent with the implementation of the survey, qualitative interviews were conducted with three district level administrators and three first responder personnel with regards to their perceptions of school crisis preparedness and collaborative development and training.

Theoretical Framework

In order to better understand crisis preparedness at the school level it is necessary to investigate the influence of the theoretically grounded models within the area of public relations in regards to crisis communication research (Collins, 2007; Drabek & McEnrire,

2003; Fowler, Kling, & Larson, 2007; McEntire, Fuller, Johnston, & Webber, 2002; Pearson & Clair, 1998; Wang, 2008). The framework of which can be viewed as a process of: identification and preparedness towards crisis events; response procedures designed to mitigate detrimental actions; and recovery actions which repair the institution, and its image (Fink, 1986; Hale, Dulek, & Hale, 2005; Pearson & Clair 1998; Ritchie & MacDonald, 2010; Seeger, Sellnow, & Ulmer, 2001).

Preparedness Communication

In the late 1980's, management research began to shift its view of crisis from an event to be avoided to that of a "natural phase of an organization's development" (Seeger et al., 2001, p. 156). Through proactive planning and the proper use of communication, organizations could mitigate, and even view crisis events as an opportunity for growth as the incident progresses through the natural development of its stages: incubation, acute action, and postmortem (Burnett, 1998; Marra, 1998; Penrose, 2000; Wang, 2008).

Through use of environmental scanning, an institution becomes aware of both internal and external environments as well as develops an understanding of attitudes and perceptions of individuals toward the organization while developing as open exchange of information (Brickman, Jones, & Groom, 2004; Hale et al., 2005; Seeger et al., 2001). "Such interaction allows an institution to recognize possible threats before they mature, diffusing an event similar to Columbine by identifying trigger events – which may include bullying and harassment – before the crisis erupts" (Collins, 2007, p. 50). According to Seeger, "inadequate pre-crisis communication increases the probability that a crisis event will be surprising, that precautions will be inadequate, and that serious harm will occur" to the organization (p. 158).

Affect of Perception

While a proactive crisis management approach is more often successful than reactive posturing (Massey, 2001; Nudell & Antokol, 1988; Penrose, 2000; Smits & Ally, 2003); perceptions of internal and external publics to preparedness, as well as to the affect of critical events, influence the organization's ability to recover from a damaging event. The view of a crisis as an opportunity for growth and improvement results in greater implementation of proactive measures, training, evaluation, and restructuring in a real-world context. Adversely, those that perceive crises as threats to avoid limit their capacity towards implementation of preparedness actions (Fowler, Kling, & Larson, 2007; Massey, 2001; Penrose, 2000; Wang, 2008).

Understanding the affect of organizational culture is critical as "a crisis management plan is … of limited use if it does not coincide with an organization's philosophies, values, attitudes, assumptions, and norms" (Penrose, 2000, p. 160). Decentralization, with greater levels of autonomy at lower organizational levels, was found to contribute to the success of a crisis plan's implementation (Argenti, 2002; Fowler et al., 2007; Seeger et al., 2001). As noted by Argenti (2002), "employees will know what to do in a crisis only if they have been absorbing the company's guiding principles all along" (p. 108).

The correlates to the tenets purposed by Seeger et al. (2001) and Penrose (2000) with regards to organizational crisis preparedness are evidenced in the guidebook, *Practical Information on Crisis Planning: A Guide for Schools and Communities* (USDOE, 2003). Utilizing the framework of the school as the organization, with the principal as its chief executive officer, the guide delineates roles and responsibilities in the event of a crisis to other staff members, to alleviate confusion and stress, if the principal becomes

incapacitated or unavailable (USDOE, 2003). Again, drawing from organizational crisis theory, evidenced is the need for structural flexibility and responsibility within integrated response systems under an overarching strategy, or plan, as critical to adaptation and survival during crisis situations (Boin & Hart, 2003; Kapucu, 2006; Rusaw & Rusaw, 2008; Von Clausewitz, 2007; Wang, 2008).

Principals' Perceptions

In May, 2009, the National Center for Education Statistics, released *Crime, Violence, Discipline, and Safety in U.S. Public Schools: Findings From the School Survey on Crime and Safety: 2007-08* (Neiman, DeVoe, & Chandler, 2009). This study, through the use of the instrument: School Survey on Crime and Safety (SSOCS), collected data from February through June, 2008, from a stratified sample of 2,560 public elementary, middle, and high school principals reflective of national *Rural*, *Town*, *Suburb*, and *City* urbanicities. Data indicate that the rate of violent incidents (per 1000 students) was highest in middle schools (41) compared to elementary (26) and high schools (22).

While a majority of all public schools written plans for specific crisis situations such as; natural disasters (95.8%), bomb threats or incidents (93.8%), shootings (83.0) or hostage situations (71.3%), only 40.0% had plans in the event that the U.S national threat level was changed to Red (severe risk of a terrorist attack), and only 36.1% in the event of a pandemic flu (Neiman et al., 2009). Comparatively, schools reported conducting student drills on specific components of their written plans at lower rates across all areas respectively: natural disasters (83.1%), bomb threats or incidents (58.4%), shootings (52.5%) or hostage situations (38.5%). Survey respondents were not asked if they drilled in the event that the U.S national threat level was changed to Red, or in the event of a

pandemic flu; nor were they asked if they drilled in collaboration with first responder personnel.

Significant findings from the data across school levels noted a larger percentage of middle schools reported drilling students on plans in the event of a school shooting (63%) compared with high schools (57%) and elementary schools (49%). Analysis of the data across urbanicities indicated city and suburban schools had higher percentages of written plans specific to a severe risk of a terrorist attack (49.3% and 43.4%, respectively) in comparison with schools in town (30.6%) and rural areas (33.6%) (Neiman et al., 2009).

In response to factors that limited their efforts to reduce or prevent crime at school in a major way, the three most prominent were: lack of alternative placements for disruptive students (25.4%), inadequate funds (23.7%), and Federal, state, or district polices on disciplining special education students (17.6%) (Neiman et al., 2009).

False Sense of Preparedness

Kano, Ramirez, Ybarra, Frias, and Bourque (2007) noted in their study of California school personnel's perceptions emergency preparedness that districts are mandated by the state to comply with Standardized Emergency Management System (SEMS) protocols. A core element of SEMS is interagency coordination, which is crucial to successfully conducting a multi-agency response to a school emergency. Using self-administered surveys of one administrative, one certificated, and one classified employee in each of 83 schools (N = 248), located in three urban districts in the Los Angeles area, the data show that on a scale of 1 (*not at all prepared*) to 10 (*extremely well prepared*) the respondents' perceptions of their school's preparedness level averaged 6.9. When asked to indicate the local agencies with which their schools cooperate on emergency preparedness, the police

department (46.9%), fire department (47.6%), and sheriff's department (42.7%) were most frequently mentioned (Kano et al., 2007).

Kano et al. (2007) indicated subjects' perceptions were that their schools were prepared for emergencies and disasters. However, the responses to specific questions about school preparedness indicated that perception does not correlate with SEMS compliance of their school's emergency plan, or with coordinating and training with first responders (which was not commonly reported among participants) (Kano et al., 2007). The implications suggest further research is needed to identify factors related to the significant differences among schools in SEMS compliance, training, and preparedness activities; as well as to school emergency preparedness in general. Furthermore, Kano et al. (2007) indicated there is a need to study how funds from the DOE are used by local educational agencies (LEA's) to affect emergency planning, response, and coordination with local government agencies.

In a similar study to Kano et al. (2007), Kano and Bourque (2007) explored California principals' (N = 157) experiences with, and preparedness for, school emergencies and disasters among elementary, middle, and high school levels. Of the various types of emergencies occurring from 2002 to 2005, over 75% of respondents indicated experiences with angry parents, animals or insects on campus and power outages. Significance of school level (elementary, middle and high school, respectively) were noted whereas high schools were more likely to report experiences in incidents of: bomb threats (4.2%, 13.0%, and 48.9%), strangers on campus (56.0%, 56.4%, and 88.9%), weapons on campus (36.0%, 80.4%, and 77.8%), and physical injuries or illnesses to

students and/or staff as a result of an emergency situation (9.8%, 24.6%, and 45.7%). All significant differences were reported at the $p<.05$ level (Kano & Bourque, 2007).

A majority of respondents (57.3%) indicated high perceptions of overall preparedness ($M = 3.5$, $p<.05$, where 1 = *not at all prepared* and 5 = *very well* prepared). However, data across school levels indicated more than 20% of principals' preparedness activities were not in compliance with mandated use of Standardized Emergency Management System (SEMS) in regards to: plan development, maintaining basic emergency supplies, annual training, and interagency coordination with local government agencies (Kano & Bourque, 2007).

Paper vs. Practice

In response to Congressional concerns of school preparedness to address a range of emergencies within and outside of school buildings, the United States Government Accountability Office (GAO) released the following studies; *Emergency Management: Status of School Districts' Planning and Preparedness* (GAO, 2007a) and *Most School Districts Have Developed Emergency Management Plans, but Would Benefit from Additional Federal Guidance* (GAO, 2007b). Through survey of a stratified random sample ($N = 444$) of all public school district superintendents in the United States; site visits in six states, semi-structured interviews, and document reviews, the GAO explored the following questions: What school districts have done to prepare for emergencies; and the challenges school districts faced in emergency management planning and communication with first responder personnel?

Analysis of the survey data (GAO, 2007b) indicated that although there are no federal laws requiring them, 32 states have laws or other policies requiring school districts have

emergency management plans (EMP). Survey data further showed 95% of all school districts have written plans; of which 99.6% address multiple hazards, with no statistically significant difference between urbanicities. However, 48% do not update their EMPs annually, and 27% have never trained with any first responders in regards to plan implementation (GAO, 2007a).

An estimated 70% of school district officials surveyed noted competing priorities as a challenge to emergency management planning; moreover, 39% of districts with emergency management plans indicated a lack of partnerships, communication, and coordination challenges with first responders although "the reasons why school districts are not training with first responders are not readily apparent" (GAO, 2007a, p.19). In it's concluding observations, the researchers stated that "given the challenges many school districts face due to a lack of necessary equipment and expertise, they do not have the tools to support EMPs they have in place and therefore, school districts are left with gaps in their ability to fully prepare for emergencies" (p. 21).

School and First Responder Collaboration.

A major finding in the GAO report was that without collaboration and training, school districts and their first responder partners may be at risk of not responding effectively during a school emergency. It was recommended that the Secretaries of the Department of Education and Department of Homeland Security "identify the factors preventing school districts, first responders and community partners from training together; and develop strategies for addressing these factors" (GAO, 2007a, p. 48).

A similar national study on school superintendents' (N = 2137) perceptions with regards to school response to a mass-casualty event conducted by Graham, Shirm,

Liggen, Aitken, and Dick (2006) found that while a majority (95.6%) reported having written response plans for school evacuations, lockdown of schools (92.4%), and mass-casualty events (86.3%); 30% had not conducted evacuation drills (N = 612), more than one quarter had never met with local law enforcement (27.1%), or with local EMS (42.8%) to discuss emergency planning in these areas. Notable was that when the data were disaggregated to compare positive preparedness responses domains between urban/suburban and rural urbanicites, urban/suburban districts were better prepared than rural districts ($p<.05$) (Graham et al., 2006). While Graham et al. (2006) present probable explanations for these findings (i.e. differences in perception to school vulnerabilities,) they did not explore them with follow up interviews. Also, while the survey did ask respondents about specific actions in their emergency plans (i.e. lockdowns,) it only asked about the conducting of drills in the area of building evacuation. Furthermore, Graham et al. (2006) noted paucity in the collaboration between districts and first responder personnel in regards to meeting to discuss school crisis preparedness plans; they did not however, explore questions of joint training or drilling on these plans.

Allen et al. (2008) stated that partnerships with first responders can be enhanced through conducting multi-agency mock drills to provide school districts an opportunity to examine their capacity to respond to an emergency. "Thus it is imperative for school personnel and emergency responders to meet and organize their efforts prior to, not during, crisis events" (Allen et al., 2008, p. 193).

Methodology

Research Design

The mixed-methods design for this research utilized the concurrent embedded strategy, which involved the simultaneous collection and analysis of both quantitative and qualitative data. The study employed a primary quantitative method to address RQ1 and RQ2, which focused on principals; and a secondary qualitative technique which addressed RQ3, which focused on district level administrators and first responder personnel. The rationale for using this strategy was that the data sets "reside side by side as two different pictures that provide an overall composite assessment of the problem" (Creswell, 2009,
p. 214). Furthermore, it allowed the researcher to "utilize different methods to study different groups or levels" within the context of schools as organizations
(p. 215).

In the study, perceptions of school preparedness were explored quantitatively using a Zoomerang survey to measure the relationship between principals' perceptions of building's safety and their implementation of crisis preparedness plans and procedural drills.

Concurrent with the implementation of the survey, qualitative interviews were conducted with district level administrators and first responder personnel with regards to their perceptions of school crisis preparedness and collaborative development and training. "The reason for combining both quantitative and qualitative data is to better understand this research problem by converging both quantitative (broad numeric trends) and qualitative (detailed views) data" (Creswell, 2009, p. 123).

Sample

In the quantitative component of the study, the researchers collected data on 60 Rhode Island public school principals' perceptions of their school's safety and preparedness planning in the event of a variety of emergency situations through a single stage, purposeful sample utilizing the names and email addresses provided in the *2010-2011 Rhode Island Educator Directory* (Giroux, 2010).

In the qualitative component of the study, data were collected utilizing six purposefully selected participants interviewed using a semi-structured interview protocol. The criteria for selection were individuals responsible for crisis preparedness within school districts representative of central office administrators (n = 3), police (n = 2), and fire/rescue personnel (n = 1) (Creswell, 2009; Gall et al., 2007; Patton, 2002).

Instrumentation

The researchers gathered quantitative data through the use of cross-sectional, self-administered, internet-based questionnaire using Zoomerang (Creswell, 2009; Gall et al., 2007; Huck, 2008). The survey questionnaire, entitled *Principal Perceptions of School Safety & Preparedness Survey* (*PPSSPS*), contained 64 items within eight sections. Content validity of the survey instrument was based on support from the literature on crisis preparedness (Graham et al., 2006; Kano et al., 2007; Kano & Bourque, 2007, Kano & Bourque 2008) and the judgments of three content experts in the area of school safety survey development. In addition, an internet version of the survey instrument using Zoomerang was pilot tested with four Rhode Island principals who examined the instrument directions, item content, and rating format for readability and ease of

understanding. Revisions to the surveys were accomplished based on the data analysis of the pilot administration.

Qualitative data were collected through a purposeful sample of district level administrators, and first responder personnel utilizing semi-structured interviews consisting of seven questions with probes to explore the perception of school preparedness with respect to the implementation of collaborative crisis preparedness training as well as perceived barriers to their implementation.

Data Analysis

Descriptive statistics were calculated for all survey variables. Cronbach's alpha was used to estimate internal consistency reliability of the data for the eight dimensions of crisis preparedness: *Access* (.70); *Identification* (.70); *Internal Security* (.70); *Safety Preparedness Development* (.77); *Safety Preparedness Activities: Students* (.80); *Safety Preparedness Activities: First Responders* (.89); *Perception of Preparedness* (.83); *Influences on Safety Preparedness* (.90). For item-level analysis, a Bonferroni correction was applied to the .05 alpha level to account for inflated Type I error (Huck, 2008).

One way analyses of variance (ANOVA) with Scheffé's post hoc tests were used for comparisons of means of the continuous variables to determine differences for survey data collected from groups of; elementary, middle, and high school administrators as well as analysis among administrators in urban, urban ring, rural and suburban districts.

Data segment content analysis of the open-ended survey responses and transcriptions of personal interviews were inductively coded and cross-case analyzed according to themes and patterns the emerged utilizing the long-table approach (Creswell, 2009; Gall et al., 2007; Huck, 2008; Miles & Huberman, 1994). Triangulation was achieved through

comparison of the data across perspectives of district, police and fire/rescue personnel (*N* = 6), as well as through document review of written emergency management plans within each interviewee's school district; and, credibility was established via member checking (Gall et al., 2007; Lincoln & Guba, 1995).

Major Results (See Table 1)

Research Question 1

1. Suburban school principals had a much greater extent ($F = 7.17$, $p < .001$) of perceiving they were prepared with regards to having a disaster plan than those in urban districts. However, review of the *SPA-S* and *SPA-FR* dimensions noted similar means between the urbanicity groups with respect to conducting a variety of drills annually students (S, $M = 2.64$; U, $M = 2.59$); and *Having plans, but never drilled*, with first responders (S, $M = 2.16$; U, $M = 2.18$). Crisis preparedness research has found that organizations frequently perceived they were prepared as long as they had a written plan in place, and that in order to be effective, written plans must be accompanied by training programs and resources.

Research Question 2

2. Elementary schools reported greater external security measures than high schools ($F = 3.17$, $p = .049$). These differences could indicate that elementary principals may perceive the need to more aggressively implement the identification of adult visitors within the building due to the fact that their student populations (ages five through 12) are more vulnerable physically and psychologically to adult intruders with the intent of; abduction, physical, or sexual assault of a student.

3. High schools reported greater internal security measures ($F = 11.06$, $p = .001$) and drills with first responders than elementary and middle schools ($F = 6.09$, $p = .004$). Differences between groups could indicate that principals' perceive students ages 15 -18 have a higher likelihood of committing acts of crime, including violence, than those of elementary schools. Data from the national report, *Indicators of School Crime and Safety*: *2009* (Dinkes et al., 2010) noted that during the 2007-08 school year, 74.5% of high schools reported violent incidents by students (e.g., physical attack, or threat of attack, with or without a weapon) to the police compared to 20% of elementary schools.

Table 1

Analysis of Variance Results and Summary of Significant Differences among Urbanicity and Grade Level Groups (N = 60)

Dimension/Item Mean		Urbanicity			$F(2, 57)$	p	η_p^{2a}	Summary
		Urban (U)	Urban Ring (UR)	Suburban (S)				
Having a crisis plan (48)[b]	M	3.14	3.71	4.29	7.17	0.002	0.201	S>U
	SD	1.04	1.16	0.78				
SPA-S Dimension[c]	M	2.59	2.84	2.64	0.64	0.534	-	NSD[d]
	SD	0.66	0.95	0.54				
SPA-FR Dimension[c]	M	2.18	2.03	2.16	0.14	0.867	-	NSD[d]
	SD	0.97	0.94	0.85				

Dimension/Item Mean		Grade Level			$F(2, 57)$	p	η_p^{2a}	Summary
		Elementary (E)	Middle (M)	High (H)				
Identification Dimension[e]	M	3.44	3.15	2.40	3.17	0.049	0.100	E>H
	SD	1.25	1.14	1.20				
Internal Security Dimension[e]	M	2.46	2.97	3.46	11.06	0.001	0.280	H>E
	SD	0.65	0.60	0.72				
SPA-FR Dimension[c]	M	1.99	1.82	2.92	6.09	0.004	0.176	H>E,M
	SD	0.85	0.72	0.88				
Full-time Student Resource Officer (21)[e]	M	1.38	2.78	4.73	12.84	0.001	0.524	H>E
	SD	1.10	2.11	0.90				

[a] Guidelines for effect size (η_p^2) are as follows: .01, .06, .14 for small, medium, large, respectively (Cohen, 1988).
[b] Item responses were: 1 = *Not at all prepared*, 5 = *Extremely well prepared*.
[c] Item responses were: 1 = *Not part of the written plan*, 2 = *In the plan, Never drilled*, 3 = *Annually*, 4 = *Often* (*1-4 times annually*), 5 = *Constantly* (*>5 times annually*). [d] NSD = no significant difference.
[e] Item responses were: 1 = *Never,* 2 = *Rarely,* 3 = *Occasionally,* 4 = *Often,* 5 = *Always/Constantly*.

Research Question 2 (continued)

4. *Safety Preparedness Activities - First Responders* High schools had a greater extent of annually implementing crisis response drills with first responders than both elementary and middle schools ($F = 6.06$, $p = .004$), which indicated it was in their plans, but never drilled upon (H, $M = 2.92$; E, $M = 1.99$; M, $M = 1.82$). The presence, or lack thereof, of a full-time Student Relations Officer (SRO) could account for some of the differences between grade level groups for the *Safety Preparedness Activities - First Responders* (*SPA- FR*) dimension. When crisis drills were conducted in a school, which had an SRO, (e.g., police officer first responder) he/she would inherently have participated in the drill. Analysis of the descriptive statistics with respect to item 21 (Full-time SRO) noted 91% of high school principals indicated *Always*, compared to 87.5% elementary principals which indicated *Never*.

Research Question 3

Themes that emerged from interviews with district-level leadership and first responders were:

5. The desire for coherence among procedures with guidance from the State level. As indicated in the research, "perhaps one of the most important elements of developing district policies in ensuring they are effective and draw on best practices in the field" (Hutton & Bailey, 2007, p. 25). Notable was that interview participants were credited for their participation in the creation of, *School Emergency Planning: Preparedness, Response, and Recovery* (2008), a Rhode Island School Safety Steering Committee guidebook, which was intended to address frameworks of best practice with respect to school crisis planning, yet they were unaware of its existence.

6. Gaps in communication and collaboration both within and among organizations. While district level administrators noted varied levels of current collaboration with first responders with regards to crisis policy development, consensus was noted that barriers were experienced when attempting to enact trainings, drills, and implementation at the school level. Respondents noted school district approach to developing and disseminating plans as "top-down" (e.g., district to principals; principals to staff). This is contrary to research, which indicated that decentralization, with greater levels of autonomy at lower organizational levels, was found to contribute to the success of a crisis plan's implementation. Without guidance from central administration; however, respondents noted principals, and their schools, would not implement procedures and drills with fidelity. A lack of guidance, support, and accountability from the district level may be a reason for inconsistency in school implementation. Again, drawing from organizational crisis theory, evidenced was the need for structural flexibility and responsibility within integrated response systems under an overarching strategy critical to adaptation and survival during crisis situations.

Limitations

MacNeil and Topping (2007) noted that "persuading those actively dealing with crisis situations that there is a place for researchers may prove to be a challenging task" (p. 67). For this study there were several limitations which included: low response rates from the selected sample; the possibility of respondents providing socially desirable answers; and concerns over instrument reliability. Data gathered solely from Rhode Island principals in the quantitative component of this study may limit the generalizability of the results to other school populations (e.g., teachers, faculty/staff members, students, parents) or other states in the country. Current research literature on perceptions of school crisis preparedness note similar limitations (Graham et al., 2006; Kano et al., 2007; Kano & Bourque, 2007; Kano & Bourque 2008).

The qualitative, open-ended interview component of this research, with key district-level administrators and first responders, presented obstacles to this study. While all efforts were made to construct open-ended questions and follow-up probes to gather respondent insights and perceptions in regards to school safety and crisis preparedness, the researcher's limited experience with interviewing techniques may have had an effect on data collection. Also, while these interviews focused on a critical case sampling (Patton, 2002), the relatively small sample size ($N = 6$) limits the transferability of the qualitative findings. It may be possible though to generalize the findings using the concept of proximal similarity (i.e., apply to districts with similar demographics).

Conclusions

National research on school emergency preparedness indicated that a majority of school districts across the United States had written emergency management plans;

however, paucity was noted in the best practices regarding their refinement, evaluation, and practice with first responder personnel. The research further indicated the need to identify the barriers which prevented school districts, first responders and community partners from training together, and to develop strategies which could address those factors (GAO, 2007a).

The results of this study may be utilized to create a context for addressing perceived barriers in addition to validating the need to develop future collaborative training efforts.

Educational Implications

The need for a well-coordinated response between schools and local emergency agencies is critical because of the limited training and experience of school personnel. The key to an effective school emergency response is to maintain a steady state of preparedness during non-crisis times (Graham et al., 2006). This entails receiving appropriate training, testing, and practicing response protocols; as well as coordinating with local emergency response agencies (Kano & Bourque, 2007).

By exploring the perceptions of crisis preparedness at the building and district levels, as well as the barriers to collaboration between first responders and school districts on a state level, the findings from this research can be used to develop strategies that school districts and first responders could implement to increase joint training opportunities.

Data analysis of perceptions of safety and crisis training implementation both within and among participant groups can be shared with school districts and first responders. Based on these findings, administrators can further examine, identify, and refine safety initiatives within their schools based on best practices detailed within the *PPSSPS*. Study participants may have gained an increased awareness of the barriers to collaborative

planning and training for school crisis responses, bringing to light the necessity to prioritize such inter-agency coordination and implement best practice policies and procedures. Furthermore, the *PPSSPS* developed for this study addressed several areas of best practice and procedures related to school security and emergency management planning, which could be utilized by schools and districts as a tool to aid in the development and evaluation of crisis preparedness.

Recommendations

1. All district and school personnel involved with school crisis planning and response should receive professional development and training regarding best practice.

2. The Rhode Island School Safety Steering Committee should reconvene to revise the *School Emergency Planning: Preparedness, Response, and Recovery* guidebook.

3. District-level crisis teams which include: central administrators, building principals, community first responder personnel, and parents, should annually review preparedness plans and policies.

4. Stakeholders should review building level crisis plans annually including: principal, staff members, first responders, parents, and students (where appropriate).

5. Conduct emergency drills at the building level in coordination with first responder personnel.

6. Revisit State and District accountability measures for implementation of Rhode Island General Laws with regards to school crisis response teams (RIGL 16-21-24) and emergency drill requirements (RIGL 16-21-5).

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