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Faculty Assessments of the Potential for Emergency Events on their Campus and their Perceived Preparedness to Respond

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FACULTY ASSESSMENTS OF THE POTENTIAL FOR EMERGENCY EVENTS ON THEIR CAMPUS AND THEIR PERCEIVED PREPAREDNESS TO RESPOND

by

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DEDICATION

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ABSTRACT

This study examined the perspectives held by college and university faculty regarding the risk and potential for emergency events to occur on their campus. The study also examined the faculty assessments of the extent to which they are prepared to respond to an emergency event. Most significant was the examination of the perspective held by faculty at public institutions of higher education in comparison to faculty at private institutions of higher education. The study encouraged the development of a culture of preparedness within institutions of higher education to best fulfill state and federal mandates while also proactively reducing the risk and impact of emergency events on college and university campuses.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Modern history has recorded numerous tragic events at institutions of higher education. Events have included natural disasters and acts of violence. The increased attention and scrutiny caused by these events have challenged colleges and universities to examine existing campus safety and security paradigms (Griffin, 2007).

Universities and colleges participating in federal student grant programs through the U.S. Department of Education are subject to compliance with federal regulations and mandates. One such mandate is compliance with the Higher Education Amendments Act of 1998. The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, hereafter referred to simply as the Clery Act, originated in 1990 when Public Law 101-542 was signed into law by President George W. Bush. The Clery Act is titled in honor of Ms. Jeanne Clery, Lehigh University student, who was murdered in her university dormitory room (Janosik, 2001).

The Clery Act requires participating universities and colleges to record and publish annual criminal activity. The intent of the Clery Act is to uphold the rights of parents, prospective students, enrolled students, and employees, to know the truth regarding criminal activity and crime prevention efforts at each university.

Griffith, Hueston, and Hart (2004) suggested that student enrollment and crime have increased on college and university campuses since 1970. Campus police departments have been required to adapt to the increased diversity of the campus environment to achieve maximum efficiency. Campus law enforcement departments, which have placed emphasis on developing and maintaining positive relationships with

the campus community, have achieved the greatest results in crime prevention (Griffith et al., 2004). The campus community has been encouraged to partner with law-enforcement officials in being proactive rather than reactive in crime prevention and safety efforts.

One year after the April 2007 critical incident at Virginia Polytechnic Institute and State University (commonly known as Virginia Tech), researchers Schafer, Heiple, Giblin, and Burruss (2010) surveyed directors of participating college and university public safety departments in order to examine critical incident preparedness on campuses throughout the United States. The study provided historical perspective of the role of public safety personnel at institutions of higher education. According to Schafer et al. the earliest documented safety and security efforts were traced to the hiring of three officers at Yale University in 1894 to serve as overnight security.

The authors identified the previous work of Sloan, (as cited in Schafer et al., 2010), who described the progressive history of campus policing as first, watchmen, then modern campus police, and finally safety and security generalists. The role of public safety personnel expanded to include the dynamics of policing in direct response to the volatile culture and environment at institutions of higher education during the 1960s. The increase of violence on a global basis has now led to the expectation of change and response placed on public safety. Public safety officials are now expected to serve as the safety and security specialists at institutions of higher education (Schafer et al.).

Statement of the Problem

The purpose of this study was to assess the extent to which faculty perceived: (a) a potential for an emergency event at their campus and, (b) their level of preparedness for such an event. Previous scientific study has been completed in the area of emergency

preparedness within the emergency medical community (Wisniewski, Dennik-Champion, & Peltier, 2004). Additional studies have been completed regarding developing cultures of preparedness for the general community (Shiwaku & Shaw, 2008). Scientific study of risk and preparedness in public kindergarten through high school facilities have been conducted subsequent to the Columbine High School mass-shooting disaster (Addington, 2003; Crepeau-Hobson, Filaccio, & Gottfried, 2005; Graham, Shirm, Liggin, Aitken, & Dick, 2006; Kano & Bourque, 2007). However, research is lacking in the application of emergency preparedness at institutions of higher education and more specifically with respect to how faculty perceive the level of risk for hazardous events at their institution.

Background

Janosik and Gregory (2009) identified the perspective of senior student affairs officers (SSAOs) at institutions of higher education regarding the effectiveness of the Jeanne Clery Act on campus safety. Survey findings indicated the participating senior student affairs officers identified the Clery Act legislation as having value in unifying efforts of crime prevention on campuses; however, it failed to influence student behavior or to reduce crime. Research findings indicated that the unfunded Clery Act mandate to collect and distribute crime statistics has served as a reactive emotional response to acts of crime on campuses. The survey results suggested that senior student affairs officers believed that proactive efforts should be made to develop services and programs having measureable outcomes of crime prevention and safety awareness (Janosik & Gregory).

Fisher (1995) provided an examination of the perceptions of the court system, legislators, and college administrators regarding crime and fear on university and college

campuses. The courts established that postsecondary institutions have a responsibility to: (a) warn students about risks, and (b) provide students with adequate security protection.

Legislators advanced statutes to hold institutions of higher education in compliance with the Clery Act requiring institutions of higher education to record and report crime statistics. The U.S. Department of Education was charged with the responsibility to monitor compliance by institutions that receive federal grant funding. College and university administrators identified the responsibility to fulfill the federal mandates and implemented crime prevention programs and efforts to reduce risk and fear on campus. The three areas of review shared a common perspective of seeking to reduce the perception of fear while also addressing the dynamics of risk and liability at colleges and universities.

Colleges and universities have been challenged to fulfill the mandates of the Clery Act specific to crime prevention. Limited emphasis has been placed on the increased expectations of the state and federal findings for best practices in the area of all-hazards preparedness and response (Catullo, Walker, & Floyd, 2009). The National Incident Management System (NIMS) was signed into existence on February 28, 2003 by President George W. Bush within Homeland Security Presidential Directive 5 (HSPD-5). The mandate requires a collaborative effort to disaster response on a national basis. This has resulted in the expectations for institutions of higher education to develop emergency response practices in collaboration with police, fire, and emergency medical systems (Griffin, 2009).

A review of the extant literature provided observation that communities and businesses have actively sought to understand the dynamics of emergency preparedness.

Universities and colleges have been active in seeking understanding specific to criminal statistics; however, limited research or understanding has been established in the development of cultures of preparedness. This study sought to provide insight into the prevailing views of institutions of higher education regarding risk and levels of preparedness to respond to emergency events.

Research Questions

This study was guided by the following research questions:

1. To what extent do faculty at private institutions of higher education perceive the potential for an emergency event to occur on their campuses?

2. To what extent do faculty at public institutions of higher education perceive the potential for an emergency event to occur on their campuses?

3. Are there differences in the extent to which faculty at private or public universities perceive the potential for an emergency event to occur on their campuses?

4. To what extent do faculty at private institutions of higher education assess their level of preparedness to respond to an emergency event on their campuses?

5. To what extent do faculty at public institutions of higher education assess their level of preparedness to respond to an emergency event on their campuses?

6. Are there differences in the extent to which faculty at private or public universities of higher education assess their level of preparedness to respond to an emergency event on their campuses?

7. Is there a relationship between risk and preparedness responses by private college faculty to risk and preparedness responses by public college faculty?

Description of Terms

Faculty. Persons identified by colleges and universities for the purpose of conducting instruction, research or public service. They may hold academic rank as professor, associate professor, assistant professor, instructor, lecturer, or the equivalent of any of those academic ranks (U.S. Department of Education, 2005).

Institutions of higher education. An educational institution in any state that is a public or other nonprofit institution and is accredited by a nationally recognized accrediting agency or association (U.S. Department of Education, 2005).

Public Safety. A term representative of a campus security, police or law enforcement authority or unit responsible for the safety and security of the students faculty, staff and visitors within the jurisdiction of the institution of higher education (U.S. Department of Education, 2005).

Mitigation. Activities designed to reduce or lessen the impact of future disaster events (Phillips, Neal, & Webb, 2011).

National Incident Management System (NIMS). A collaborative management system designed to guide governmental, public, and private organizations and agencies in the effort to prepare, prevent, respond, and recover from all-hazards emergency events (Phillips et al.).

Preparedness. Activities designed to proactively plan for disaster, conduct training and exercises, drills and educational programs regarding the response to disaster events (Phillips et al.).

Recovery. The process of decisions and actions to rebuild and return a community to a functioning status (Phillips et al.).

Response. Proactive activities designed to save lives, reduce property damage and promote the recovery process (Phillips et al.).

Significance of the Study

Institutions of higher education are held responsible for meeting state and federal mandates of emergency preparedness and crime prevention. These mandates expand to expectations held by parents, prospective students, enrolled students, staff, and faculty (Griffin, 2007).

This study was significant in examining the perspectives held by college and university faculty regarding the risk and potential for emergency events to occur on their campus. The study also examined the faculty assessments of the extent to which they are prepared to respond to an emergency event.

Most significant was the examination of the perspective held by faculty at public institutions of higher education in comparison to faculty at private institutions of higher education. The study provided insight into the prevailing view that institutions of higher education may be immune from hazardous events. This perception is often referred to as living in the bubble or within an ivory tower (Fisher, Sloan, Cullen, & Lu, 1998).

The study provided evidence that supports the development of a culture of preparedness within institutions of higher educations to best fulfill state and federal mandates while also proactively reducing the risk and impact of emergency events on college and university campuses.

Process to Accomplish

The researcher surveyed faculty at four institutions of higher education who self-reported regarding their perceptions of risk and of their level of preparedness to respond

to emergency events. The study compared the perceptions of full-time faculty at private and public universities.

The population for the research study included the faculty from two private universities and two public universities located in the Midwest. The universities were each fully accredited and offered four year undergraduate degrees while providing residential facilities. The private universities were governed by private faith-based charters while the public universities were governed by state authority and legislation.

An electronic web-based formatted survey was designed by the researcher to collect the responses of participants regarding their perspectives of two areas: (a) their perceptions of the potential for risk of an emergency event to occur on their campus and, (b) their level of preparedness to respond to an emergency event that occurred on their campus. The survey was field-tested at a public community college located in the Midwest. Field-testing of the survey instrument was completed utilizing a panel of faculty members to complete the survey and provide qualitative response regarding their experience with completing the survey. The researcher completed analysis of the field-test response data to measure reliability and stability of the survey instrument. Institutional Review Board approval was granted to conduct the study at each institution of higher education including the community college that participated in the field-test.

The full-time faculty members assigned the position of Department Chairperson at each of the universities were selected as prospective participants. Full-time faculty were selected to assure participants representing an informed perspective of the environment and culture of the institution beyond that which possibly an adjunct faculty member may be able to represent. This attempt by the researcher to gain informed insight

into the institution was furthered by sampling from the positions of Departmental Chairpersons as this position holds further responsibility and awareness of institutional values and norms. A representative from each of the participating institutions of higher education facilitated distribution of the original electronic format communication requesting participation by the faculty in the research.

The Likert-type scale method of summated ratings assessed the perspective and levels of risk and preparedness of the participants. The electronic survey incorporated an introductory statement of the purpose of the study and information specific to statements of protection from harm, confidentiality, and informed consent. Opportunity was provided for potential participants to choose not to participate.

Participants that continued with the survey were asked to acknowledge understanding of their rights to terminate participation at any time during the survey process. Participants were then asked to provide demographic information.

Descriptive statistics were computed utilizing SPSS statistical analysis software to describe the study participants at each institution. Demographic information submitted by the participants provided opportunity for analysis of categorical data including gender, ethnicity, and school or division of practice and analysis of interval data including age, years of teaching, and years of serving as departmental chairperson. Analysis of demographic information was utilized to determine group equivalence between the private and public universities independent from the data analysis conducted specific to the research questions.

The participants were asked to respond to the Likert-type scale options regarding two areas of data collection: (a) faculty perception of risk that an emergency event may

occur on the university campus and, (b) faculty self-assessment regarding preparedness level to respond to an emergency event that may occur on the university campus. The two data collection areas contained an identical list of 34 emergency events placed into corresponding sections related to personal emergency events, property emergency events, and natural emergency events. The list of emergency events was generated by the researcher based on reportable crimes mandated by the Clery Act and all-hazards planning assessment recommendations published by the Federal Emergency Management Agency (FEMA). The emergency events were listed in alphabetical order within the specific event sections rather than by a ranking of perceived frequency or importance.

The two data collection areas were organized into two parts containing a total of six research questions. Part One presented the research questions that guided data collection pertaining to faculty perception of risk that an emergency event may occur on the university campus. The Part One research questions were:

1. To what extent do faculty at private institutions of higher education perceive the potential for an emergency event to occur on their campuses?

2. To what extent do faculty at public institutions of higher education perceive the potential for an emergency event to occur on their campuses?

3. Are there differences in the extent to which faculty at private or public universities perceive the potential for an emergency event to occur on their campuses?

To examine research questions one and two, the participants were asked to rate their perception of the likelihood and risk for emergency events to occur on their campus. A list of 34 specific emergency events was presented for the participants to rate. Participants rated each emergency event individually within corresponding sections

related to personal emergency events, property emergency events, and natural emergency events. Response options ranged from1 through 6, with 1 representing highly unlikely, 2 very unlikely, 3 unlikely, 4 likely, 5 very likely and 6 highly likely.

Research questions one and two were examined utilizing the survey data provided by the participants to conduct a descriptive analysis. Means and standard deviations were computed to describe faculty responses to research questions one and two (Robson, 2002).

To answer question three, Independent Samples *t*-tests were computed to compare differences in perception of risk between faculty serving at private and faculty serving at public institutions.

Part Two presented the research questions that guided data collection pertaining to faculty self-assessment regarding preparedness level to respond to an emergency event that may occur on the university campus. The Part Two research questions were:

4. To what extent do faculty at private institutions of higher education assess their level of preparedness to respond to an emergency event on their campuses?

5. To what extent do faculty at public institutions of higher education assess their level of preparedness to respond to an emergency event on their campuses?

6. Are there differences in the extent to which faculty at private or faculty at public universities of higher education assess their level of preparedness to respond to an emergency event on their campuses?

To examine research questions four and five, the participants were asked to rate their perception of their level of preparedness to respond to an emergency event on their campus. A list of 34 specific emergency events was presented for the participants to rate.

Participants rated each emergency event individually within corresponding sections related to personal emergency events, property emergency events, and natural emergency events. Rating options provided coding of 1 through 6, with 1 representing highly unlikely, 2 very unlikely, 3 unlikely, 4 likely, 5 very likely and 6 highly likely.

Research questions four and five were examined utilizing the survey data provided by the participants to conduct a descriptive analysis. Means and standard deviations were computed to describe faculty responses to research questions one and two (Robson, 2002).

To answer research question six, Independent Samples *t*-tests were computed to compare responses from faculty of private and public institutions regarding their level of preparedness to respond to an emergency event.

To answer research question seven, Analysis of Variance (ANOVA) provided a between-subjects analysis of the differences between the perceptions of potential risk and the perceptions of levels of preparedness in each of the private university faculty responses and public university faculty responses.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Universities and colleges have a long history of being held accountable for the safety and security of students. The doctrine of *in loco parentis* has held university administrators responsible for physical safety of students and has sought to mitigate dangerous incidents (Griffin, 2007).

The doctrine, in loco parentis, remained the legal standard until cultural changes occurred in the era of the 1960's, resulting in a generation of college student's resisting authority. Such resistance ultimately impacted state and federal legal decisions and resulted in a relaxing of the relationship that had previously resulted in the university serving as the surrogate parent of the student. Universities remained accountable for providing a safe and secure environment for the educational process while students gained independence and due process rights (Stamatakos, 1989).

The history of higher education has included the perspective that educational environments promote a separation from and elevation beyond the common issues of society. Colleges and universities are described as existing in an ivory tower where true intellectual focus is the priority. Fisher et al. (1998) found that crime exists in the modern ivory tower environment resulting in the need for a return to intervention on behalf of the student, a relationship that is identified as the model for in loco parentis.

Griffin (2009) identified the emerging requirement for universities and colleges to advance the paradigms and best practices associated with the Clery Act legislation and the emergency management community. Institutions of higher education, under the

leadership of the departments of public safety within colleges and universities, are challenged to specialize in the areas of crime prevention as well as the emergency medical and emergency management professions.

This study reviews the research related to (a) crime on campus, (b) legislative response to campus crime, (c) the role of public safety, (d) emergency services appropriate for college, (e) perception of risk and preparedness, and (f) emergency preparedness training.

Crime on Campus

The progression and escalation of criminal activity identified in the second half of the 20th century separate from the academic communities, ultimately arrived on campus. A review of research material identified the continual emergence of crime on campus and the requirement for university officials to respond (Griffin, 2007).

In an effort to study the role of crime and victimization, Jennings, Gover, and Pudrzynska (2007) conducted a survey of undergraduate students at a large south-eastern university. The research findings indicated the fear of crime and the perceived risk of crime measured higher than actual reports of victimization. The authors noted that male participants who indicated a higher level of victimization reported less fear of crime and perceived risk of crime. The female participants reported higher levels of fear and perceived risk of crime than the male participants. The female participants also reported a higher level of application of risk avoidance behavior than the male participants (Jennings et al.).

The research suggested that empowering students with realistic information about crime and crime prevention would serve to reduce the fear of crime and the perceived

risk of crime. They further suggested that the findings challenged colleges and universities to provide emphasis on crime prevention and awareness training to both male and female students.

The frequency and risk for crime to occur on campuses was examined as Lott, Reilly, and Howard (1982) conducted a survey in cooperation with a campus committee having organized as a result of a sexual assault scandal at the University of Rhode Island. The researchers sought to evaluate the university community regarding the perception of the frequency of acts of sexual assault and harassment.

The study was designed to represent the entire university population of undergraduate students, graduate students, faculty and staff. The research findings indicated male and female research participants shared concern for the safety of females at the university. The female participants reported perception of males being more aggressive socially and sexually with expectations that females are to be tolerant of the male advances. The male participants reported perception of females being responsible for actions interpreted by males as invitation to advance on the female (Lott et al., 1982).

This research assisted the university community to address a campus community conflict. Communication was initiated as a result of the findings. This case study research provided evidence of the need for additional study in the area of campus safety and crime prevention relating to sexual stereotypes and gender perceptions (Lott et al., 1982).

At East Carolina University, McCreedy and Dennis (1996) evaluated the level of reported and unreported crime in relationship to an apparent increase in students' overall fear of crime. The research findings identified the majority of participants reported fear of becoming a victim of personal crime and stated the desire to avoid night classes as a

means to reduce the opportunity of being a crime victim. Participants identified an increase in fear of crime in the general environment of the university with a higher rate of concern associated with the residential community (McCreedy & Dennis).

The authors encouraged further study of crime prevention and self-awareness education at institutions of higher education. Additional study was recommended regarding administrative policy and procedure development with measurable outcomes to reduce criminal activity and the fear of crime on campus.

Researchers (Asmussen & Creswell, 1995; Fisher et al., 1998; Tewksbury & Ehrhardt-Mustaine, 2003) have studied the role of guardianship activities as defined within the routine activity theory of criminal study. The routine activity theory is utilized to identify a correlation of exposure to risk to actual incidents of victimization. The study and evaluation of the correlations provide researchers and professionals with information to better understand criminal activity and potential means to mitigate and prevent crimes from occurring.

Tewksbury and Ehrhardt-Mustaine (2003) conducted research to study the use of self-protective measures by college students as applied to lifestyles and crime prevention efforts. The authors facilitated a self-administered survey of 1,513 college and university students. The student participants represented nine institutions of higher education located within eight states. The authors collected the survey data from students enrolled in introductory-level sociology and criminal justice courses.

The survey results indicated students utilized a means of self-protection due to increased levels of risk to personal safety. The participants identified activities and lifestyles placing them in the environment and time frame of higher criminal activity. The

authors concluded that the participants illustrated the use of self-protection devices and measures as a guardian influence to deter victimization (Tewksbury & Ehrhardt-Mustaine, 2003).

Asmussen and Creswell (1995) initiated a qualitative case analysis two days after a critical incident occurred at a large public university located in a Midwestern city of the United States. The incident involved an armed gunman attempting to discharge a high powered rifle at students within a classroom. The weapon reportedly malfunctioned and the students fled the scene without injury. The offender was reportedly apprehended at a location off university property.

The authors obtained approval by the university administration and the Institutional Review Board to conduct the case study within an eight month period. The study utilized an exploratory qualitative case study design and interviewed participants from university students, faculty, staff, and administration (Asmussen & Creswell, 1995).

The authors identified five themes that were common in the statements offered by the participants: (a) denial, (b) fear, (c) safety, (d) retriggering, and (e) campus planning. These themes were then grouped into two categories: psychological responses and organizational responses of the campus community (Asmussen & Creswell, 1995).

The case study offered insight into the personal and organizational impact of a critical incident. The authors identified dynamics that are considered normal after such an incident and provided ideas regarding future research in the area of campus planning.

In another study, Fisher et al. (1998) applied research utilizing the routine activity theory to identify the causes and rates of criminal activity at institutions of higher education.

The research findings suggested that routine activity theory was applicable to the university environment, culture, and lifestyle. The authors reported research findings that identified an increase in property crime victimization as measured by the variables of: (a) target attractiveness, (b) exposure, and (c) lack of guardianship. Violent crime victimization was found to increase in association with lifestyle behaviors which included high levels of recreational use of drugs and of attending late night social events (Fisher et al., 1998).

Recent research looked beyond criminal acts and included the perspective of emergency events. Catullo et al. (2009) conducted research that assessed the level of crisis preparedness at institutions of higher education from the perspective of the chief student affairs administrators after the September 11, 2001 terrorist attacks. The authors surveyed members of the NASPA (Student Affairs Administrators in Higher Education). The authors compared the responses of chief student affairs administrators to the findings documented in a similar study conducted by Zdziarski, (as cited in Catullo et al.).

The survey results indicated that participating institutions identified an increase in the level of crisis preparedness in each of four areas of crisis management: (a) natural, (b) facility, (c) criminal, and (d) human. Additional research is warranted in the area of developing crisis management teams within institutions of higher education and the subsequent training of team members.

Janosik and Gregory (2003) investigated the influence of the Jeanne Clery Act on campus law enforcement practices at institutions of higher education. The Clery Act is Federal legislation mandating institutions of higher education to report crime statistics.

The researchers surveyed 944 senior level campus law enforcement officials with the cooperation of the International Association of Campus Law Enforcement Administrators (IACLEA). Each of the officials was identified as serving within an institution participating in IACLEA membership. A participation rate of 39% was recorded based on the total of 371 officials having completed surveys. The research findings indicated the slight majority of 57% of the participants believed that the Clery Act had been effective in improving the quality of crime reporting procedures. The participants reported campus safety programs and educational campaigns were more effective in advancing crime prevention efforts than providing the federally mandated crime statistics (Janosik & Gregory, 2003).

This research provides information useful in the further study and research of effective methods of developing and implementing crime prevention and safety education on the campuses of institutions of higher education.

Legislative Response to Campus Crime

Studies have focused on the involvement and impact of Federal legislation in the efforts to address the issues of crime on campus. Janosik (2001) conducted research to determine the effect of the Jeanne Clery Act on the behavior and decision-making of university students regarding personal safety and security. The research determined that the level of student attention to the mandated reporting requirements of the Clery Act was determined to be low. The research indicated an increase in proactive effort by students to be more attentive to their behavior and decision-making as the result of additional attention invested by university officials in educating students regarding improved safety and security.

Universities and colleges participating in federal student grant programs through the U.S. Department of Education are subject to compliance with federal regulations and mandates. One such mandate is compliance with the Higher Education Amendments Act of 1998. The Clery Act, having an official title of the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, originated in 1990 when Public Law 101-542 was signed into law by President George Bush. The Clery Act is titled in honor of Lehigh University student Ms. Jeanne Clery, who was murdered in her university dormitory room (Janosik, 2001).

The Clery Act requires participating universities and colleges to record and publish criminal activity. The intent of the Clery Act is to uphold the rights of parents, prospective students, enrolled students, and employees, to know the truth regarding criminal activity and crime prevention efforts at each university.

Institutions of higher education have sought to be in compliance with the Clery Act. The question remains unanswered regarding the value of the results of reporting in comparison to the amount of resources utilized to fulfill the legal mandates. Janosik (2001) conducted research to determine the influence on student behavior and decision-making regarding personal safety and security. The research findings indicated that the criminal statistics information was largely ignored by students. In contrast, the secondary efforts of crime prevention programs achieved greater attention (Janosik).

Quantitative research was conducted with the collaboration of university administrators at three universities. The institutions included a community college, a comprehensive college, and a research university. Random samples of 500 students at each institution were presented a 20-item questionnaire developed by the researcher. The

original sample of 1500 questionnaires returned 795 (55.8%) usable responses (Janosik, 2001).

Male and female student respondents indicated that they were neither significantly aware of the Clery Act requirements nor motivated to change behavior and decision-making regarding their individual safety due to the Clery Act. Respondents indicated an increase in safety awareness and respect for campus officials as a result of the attention placed on meeting Clery Act requirements. The female participants indicated a higher level of attention to personal safety as a result of utilizing information presented through the Clery Act mandates. The researcher offered the possibility that the student participants may have perceived a greater level of safety and security due to attending suburban and rural institutions rather than urban institutions (Janosik, 2001).

Janosik (2001) suggested additional research in the form of qualitative studies to determine tools and methods of educating students. This research provided valid information regarding the perspective of university and college students. Additional areas of research remain to be considered regarding the impact of relational investments between university safety officials and students.

Fisher, Hartman, Cullen, and Turner (2002) presented an assessment of the Clery Act pertaining to the original intent of legislators to respond to violent crime on the campuses of higher education institutions. The Clery Act, which was established to mandate higher education institutions to record and report criminal statistics, was evaluated by the authors. The authors concluded the Clery Act resulted in generating attention to crime prevention by administrators; however the Clery Act is serving as only

a symbolic legal intervention ultimately responding to the emotional concerns of safety while having no real impact on crime prevention (Fisher et al.).

The Role of Public Safety

Schafer et al. (2010) suggested that the public safety departments are challenged in modern times to serve as the experts within higher education to fulfill the expectations and requirements associated with the safety and security of the university environment.

Evidence of such an evolution of emergency services was identified by Peak, Barthe, and Garcia (2008) as they conducted research to evaluate the changes in tasks and responsibilities of campus law enforcement organizations over the 20 year period occurring after a similar survey (Peak, 1987, as cited in Peak et al., 2008). The authors identified numerous responsibilities placed on campus law enforcement organizations and sought to identify the level of service delivery occurring within campus policing.

Findings from 915 campus law enforcement agencies in cooperation with the International Association of Campus Law Enforcement Administrators (IACLEA) suggested an increase in the professionalization of campus law enforcement agencies in a broader sense of mission in an effort to meet state and federal mandates. The research findings indicated a majority of agencies had changed department title to include names such as police, or law enforcement from the previous title of security (Peak et al., 2008).

Research has continued to identify the role and authority granted to university and college public safety agencies. Paoline and Sloan (2003) conducted a study of research data collected by the US Department of Justice, Bureau of Justice Statistics. The data was identified as the Survey of Campus Law Enforcement Agencies. The authors utilized the data to examine the variations in organizational structure within campus law enforcement

agencies. Data also identified the influence public law enforcement agencies had upon the organizational model of campus law enforcement.

The authors limited the research to 682 post-secondary institutions based on structural similarities including student enrollment, number of faculty and staff personnel as well as four year public institution classification. The authors limited the database further to include only institutions that met three criteria: (a) officers had full arrest powers, (b) officers were armed, and (c) the agency provided 24-hour patrol of the campus seven days a week (Paoline & Sloan, 2003).

The research findings indicated campus law enforcement agencies demonstrated similar organizational structure. The participating agencies reported however, that institutions of higher education police departments provide similar operational tasks and roles as community law enforcement agencies. The college and university police functions remained unique to the culture and environment of each institution. The authors stated the campus law enforcement agencies reported survey responses indicating a replication of public law enforcement organizational structure (Paoline & Sloan, 2003).

The research provided information to advance additional research of the structure and role of campus police and security agencies in the effort to meet the evolving state and federal mandates of safety and security standards at institutions of higher education.

Recent research examined the perspective of university students toward public safety officials. Nalla and Heraux (2003) surveyed 750 undergraduate students at a large Mid-western university to analyze students' perceptions of campus law enforcement officers at institutions of higher education in comparison to previous research studying the public perception of public police officers. The authors measured the attitudes of

college students regarding the role of private police serving the specific jurisdictional area and responsibilities of the campus community.

The research findings indicated the majority of participants perceived private police officers at the university in a positive manner; however, the findings indicated a lack of understanding as to the differences in levels of authority and arrest powers between private police and public police authorities. The majority of participants identified with the perception that private police are tasked with the similar roles and responsibilities as public police (Nalla & Heraux, 2003). Further, the research findings indicated that students hold an expectation for private police to serve at levels of authority and professionalism similar to that of public police. This role expectation provides reason to consider further study of the ability of private police personnel to advance the safety and security on campuses of higher education.

The Emergency Services Appropriate for College

As noted previously, public safety officials at institutions of higher education are expected to serve as the safety and security specialists (Schafer et al., 2010). This expectation is expanded through the Clery Act and NIMS to include the development of best practices as established in the other areas of emergency management professions (Janosik, 2001).

Seminal research is lacking in the area of developing, implementing and evaluating emergency management at institutions of higher education. The emergency medical field has been the focus of research through the identification of the types and levels of disaster preparedness curricula delivered or developed for nursing programs at a national level (Weiner, Irwin, Trangenstein, & Gordon, 2005). A study of 2,013 schools

of nursing was completed in support of the International Nursing Coalition for Mass Casualty Education (INCMCE) to identify the educational needs of nurses in the United States.

The survey results indicated nursing programs provided limited training in emergency preparedness. The participant programs reported an average of four hours of disaster preparedness training with no room to add time or curriculum to the program content. The authors stated the survey revealed program instructors were rated as having inadequate training and credentials to instruct emergency preparedness curriculum (Weiner et al., 2005).

This research identified the nursing programs which serve to train the nation's first responders to medical emergencies were lacking in sufficient time, curriculum and qualified instructors (Weiner et al., 2005). The research served to encourage additional research and study into the anticipation that personnel at institutions of higher education are in the same situation.

The emergency medical services identified the need for training and expanded research to include acts of terrorism. Thorne, Curbow, Oliver, Al-Ibrahim, and McDiarmid (2003) conducted focus group research utilizing the participation of nonclinical hospital employees in order to measure the perceptions of participants regarding terrorism preparedness training. The authors explained that preparedness training had been designed and implemented for emergency medical personnel; however, no such training specifically designed for nonclinical personnel had been implemented.

The study classified the nonclinical hospital personnel to include security, housekeeping, dietary and mailroom personnel in addition to nursing assistants. The

authors indicated that nonclinical employees serve as important resources during crisis response and share responsibilities to fulfill the mission and purpose of the medical institution (Thorne et al., 2003).

The authors utilized the Risk Communication Model (RCM) to guide the development of research in the area of preparedness training. "Risk Communication involves an exchange of information, concerns, and opinions among individuals, groups and institutions concerning a risk or threat to human health or the environment" (Thorne et al., 2003, p. 333). RCM contains the following principles: (a) identify the hazard, (b) know the audience, including their level of awareness and experience, and (c) know the audience's preference of training format and delivery.

Focus group sessions were conducted with nonclinical personnel within the Department of Veterans' Affairs Maryland Health Care System. The designed focus group discussion topics were based on the Risk Communication Model and were structured into four topic areas: (a) type of hazard, (b) person or audience, (c) social environment, and (d) participants' training preferences (Thorne et al., 2003).

The authors found that the participants communicated a preference for training content to be practical to the work environment and role of the employee. Additionally, the participants communicated the preference to have professionals serve as instructors for the presentation of the training material. Finally, the participants stated a preference for a variety of training methods including lecture, printed material, and video (Thorne et al., 2003).

The research findings remain helpful in advancing the topic of developing all-hazards emergency response and preparedness training within institutions of higher

education. The concept of the Risk Communication Model may be considered for further development within the higher education environment in a similar manner as was utilized in the medical environment with nonclinical personnel.

Wisniewski et al. (2004) conducted research using the Emergency Preparedness Information Questionnaire (EPIQ) in cooperation with the Wisconsin Nurses Association (WNA). The study assessed the level of familiarity nurses have regarding response to large-scale emergency events and was designed to identify preferred structure of continuing education offered to nurses.

The survey assessed the nurses' self-reported familiarity with eight emergency preparedness competency dimensions. The dimensions were identified as: (a) triage and basic first aid, (b) detection, (c) accessing critical resources and reporting, (d) incident command system, (e) isolation, quarantine, and decontamination, (f) psychological issues, (g) epidemiology and clinical decision-making, and (h) communication and connectivity. The authors reported participants scored below average in familiarity of all dimensions except triage and basic first aid. The survey results indicated a preference for face-to-face instruction in a 2-hour lecture format or web-based training (Wisniewski et al., 2004).

The study supports additional research to identify the need for designing and implementing competency-based emergency preparedness curricula at institutions of higher education.

Chaput, Deluhery, Stake, Martens, and Cichon (2007) conducted survey research with participating pre-hospital emergency service providers to measure the effectiveness of disaster training. The authors identified the responsibility placed on Emergency

Medical Technicians-Basic (EMT-B) and Paramedics (EMT-Ps) to provide emergency services at disaster scenes involving chemical, biological, and radiological/nuclear (CBRN) incidents. The authors facilitated the survey in cooperation with an Emergency Medical Services (EMS) system where CBRN and mass casualty disaster training was not provided.

Pre-hospital emergency service providers are tasked with responsibilities to attend to routine emergency medical needs of individuals who have become sick or injured. The emergency medical community has defined standards for training of personnel regarding the routine emergency medical needs. However, minimal training has been provided specific to disaster events. Disaster event management strategies include: (a) initial scene evaluation, (b) identification, (c) communication, (d) triage, (e) medical care, and (f) victim transport. The EMS systems had provided professionals with formal training in these areas of disaster management; however these personnel had not received training specific to CBRN and mass casualty disasters (Chaput et al., 2007).

Research instruments have been examined for the purpose of evaluating perceptions of emergency preparedness levels. Modern researchers Garbutt, Peltier, and Fitzpatrick (2008) completed research to evaluate the Emergency Preparedness Information Questionnaire (EPIQ) as a resource to identify the level of emergency preparedness knowledge of civilian medical nurses. The survey assessed the nurses' self-reported familiarity with eight dimensions of emergency preparedness. The dimensions were identified as: (a) detection, (b) incident command system, (c) triage, (d) epidemiology and surveillance, (e) isolation, decontamination, and quarantine, (f) communication, (g) psychological issues, and (h) reporting. The research found that the

EPIQ proved to be a valid measurement instrument and identified the further need for designing and implementing competency-based emergency preparedness curricula (Garbutt et al., 2008).

Shaw, Shiwaku, Kobayashi, and Kobayashi (2004) conducted research to evaluate the role of education in preparedness and response to incidents of earthquake. The authors identified the positive role of family and community training as related to earthquake preparedness and identified the productive impact of school education on preparedness training. The research supports additional examination of the role and value of continuing education in advancing cultures of emergency preparedness.

Perceptions of Risk and Preparedness

Researchers have studied the role of risk perceptions as related to individuals assessing potential risks and their preparedness to respond to those risks. Crepeau-Hobson et al. (2005) conducted research two years after the shooting incident at Columbine High School to examine changes in violence prevention strategies and mental health services in Colorado public high schools. The authors identified that research indicated a history of armed violence in high schools within the United States; with evidence of a decline in incidents involving one victim and an increase in multiple victim violent assaults.

The researchers surveyed public, alternative and charter high schools listed in the Colorado Department of Education directory. Participants indicated an increase in specific security measures including door access control, metal detectors and visitor check-in procedures. Participants identified an increase in the development or update of emergency response plans. It was noted by participants that school administration had

historically not involved the mental health personnel and teachers in developing policies or allocating school funding resources in the area of school safety and mental health programming. The authors determined that the participants identified a need for mental health professionals and teachers to have an increased role in contributing to school safety policies, practices and training in effort to advance emergency preparedness Crepeau-Hobson et al., 2005).

Addington (2003) conducted research of the 1999 School Crime Supplement to the National Crime Victimization Survey (NCVS). The NCVS was designed to be conducted by the U.S. Department of Justice on an annual basis during the first six months of the year and then again during the second six month period. A national representation of households was surveyed with the School Crime Supplement (SCS) providing focused questions for 12 to 18 year old students. The author examined NCVS and SCS survey findings to study the effect of the April 20, 1999 fatal shootings at Columbine High School in Littleton, Colorado. The research was used to ascertain students' perceptions of fear of victimization and changes in behavior related to avoiding victimization.

The survey was administered through a randomized experimental design and distributed on a national basis. Data was examined from participants of the survey prior to the Columbine incident and compared to data of participants after the Columbine incident (Addington, 2003).

Addington (2003) identified the Columbine incident as representing a category of emergency management different than natural disasters or isolated victim crimes. The Columbine incident represented a category of crime characterized by intentional

violence, high publicity, and multiple deaths (Addington, 2003). The level of global publicity of such an event was reasoned to increase the level of fear at both a local level (near the event) as well as at a social distance to include individuals that are not located physically near the event however associate vicariously on an emotional and social level with the victims.

The survey results indicated a small increase in the perception of fear at both the local and national level of participants. The author offered that the fear of victimization was initially increased due to individuals not knowing how to assess the probability of another similar event to occur. Participants also indicated minimal changes in behavior to avoid victimization while on school property and no changes were indicated regarding off school property such as traveling to and from school (Addington, 2003).

The author suggested the future study of the role and impact on perception regarding the frequency of emergency situations and experience with emergency events as it relates to the reduction of fear and risks (Addington, 2003).

The examination of how individuals process perceptions of fear and risk have resulted in research specific to the process of understanding a person's perception of competence or self-efficacy (Ajzen, 1991). A review was completed of the theory of planned behavior as it relates to an individual's motivation, attitude, and perception of ability to perform an action required to respond to a particular situation. According to Ajzen, self-efficacy beliefs contribute to thought processes, situational response, and emotional reactions with an increase in behavioral achievement as the individual identifies proficiency and understanding of ability to successfully accomplish the required action (Ajzen).

Ajzen (2002) provided further discussion regarding the theory of perceived self-efficacy and defined the theory as referring to, "people's beliefs about their capabilities to exercise control over their own level of functioning and over events that affect their lives" (p.667). The theory was stated to include the factor of an increase in self-efficacy equal to the person's belief that resources were available to support their effort as well as a reduction in obstacles that could impair their response capabilities.

Slovic, Finucane, Peters, and MacGregor (2004) reviewed psychological research of an individual's reliance on feelings while reacting to situations of risk. The instinctive reaction was referred to as the affect heuristic and explained the individual's ability to automatically respond in moments of risk and emergency. The authors' emphasized previous research (Chaiken & Trope, 1999; Sloman, 1996) discussing the dual-process theories of information processing and the validity of cognitive analysis as being a part of decision-making in emergency situations. The reliance on affect and emotions through feelings was identified as having an increased efficiency in crisis analysis.

Slovic and Peters (2006) conducted review of research on the process of finding a satisfactory solution in an emergency situation known as the affect heuristic. Emphasis was placed on the development of the concept that the perception of risk through feelings is an instinctive and intuitive reaction to danger. The role of feelings in risk assessment (e.g. the affect heuristic) was found to establish the concept of insensitivity to probability for an emergency event to occur. This concept of insensitivity to probability is known as probability neglect (Slovic & Peters).

Probability neglect was identified as increasing while a person's negative feelings or fear level increase. This is the affect observed as individuals place negative feelings on

acts of terrorism and associate the negative event with an increase in probability for another event to occur while neglecting objective evaluation of the probability for another terrorist event to occur (Slovic & Peters, 2006). In other words, probability neglect results in a period of unsubstantiated increases in belief that a crisis event may occur or re-occur.

Slovic, Peters, Finucane, and MacGregor (2005) discussed the affect heuristic involving the characterization of a "mental shortcut" when an individual is able to complete intuitive reactions to emergency situations. The affect of feelings in risk analysis was identified as serving more efficiently than the cognitive process of weighing pros and cons of the response alternatives. In other words, the authors identified that an individual is believed to be able to react to threatening situations more effectively based on reactive feelings than on memory while under stress.

In another study regarding the affect heuristic, Finucane, Alhakami, Slovic, and Johnson (2000) conducted research to study the role of the affect heuristic within the process of making risk and benefit judgments. The affect heuristic was explained as a person's actions of, "accessing a pool of positive and negative feelings" (p. 5) as a hazardous situation is encountered.

An increase in the use of affect heuristic occurred when a person was placed in conditions of time restraint to make a decision. The participants were found to display an increased reliance on feelings and a decrease on logical thought processes as the perception of pressure was increased on the participant (Finucane et al., 2000).

Psychological research to advance the risk-as-feelings hypothesis was reviewed and identified the role of emotional reactions in situations of perceived risk (Loewenstein, Hsee, Weber, & Welch, 2001). Further, scientific research has prioritized

theories of choice when responding to risk situations. Proposed was the alternative to choice in decision making and the identification of the role of emotions and feelings as prioritizing the behavioral responses in situations of perceived threat or risk.

Lindell and Hwang (2008) conducted research to examine the role of risk perception as individuals processed the risk factors associated with proximity to hazards. Lindell and Hwang suggested that individual's progress through experiencing an emergency event, developing an increased awareness of the risks involved, and subsequently making logical decisions regarding the benefit of adjusting their self-efficacy to respond to future emergency events including relocation.

The perception of risk was identified in terms of an individual's expectations regarding the potential for an emergency event to occur at a specific location within a specific period of time and additionally factored in the potential for the individual to be victimized by the event. The perception of personal risk was identified (Lindell & Prater, 2003; Weinstein, 1989) as related to the recency of event, frequency, and intensity of a person's experience of an emergency event. The factor of proximity to the potential emergency event was identified as impacting risk perception with the mindset that the farther a person is from the risk, a reduction of risk and fear occur, resulting in a reduction or relaxation of awareness, preparedness and concern.

The research participants indicated an increased level of risk perception and awareness if having had personal experience with an emergency event, residing in an area of increased potential for an event, or having been provided emergency management information regarding the dynamics of prevention, preparedness, response, and recovery. The authors identified the benefit of emergency managers assessing for potential target

audiences and advancing additional efforts to effectively communicate emergency preparedness information (Lindell & Hwang, 2008).

Slovic (1987) reviewed risk perception research in effort to advance the efforts of the emergency management community in understanding and anticipating public responses to emergency events; and to improve the communication of emergency management information within the profession. Slovic articulated that the emergency management profession identified risk assessment as a function of the mitigation and prevention process. Whereas, the public identified risk assessment through risk judgments and feelings that serve as risk perceptions. The primary perception of the public identified the modern world at a higher level of risk for emergency events to occur than at any other time in history. This perspective and the resulting desire to regulate the actual risks and the risk perceptions of the public, result in emergency management officials seeking to understand the manner in which individuals think about and respond to risk (Slovic).

The role of social trust within risk perception was the focus of research conducted by Siegrist, Cvetkovich, and Roth (2000). Social trust was defined as, "the willingness to rely on those who have the responsibility for making decisions and taking actions related to the management of technology, the environment, medicine, or other realms of public health and safety" (p. 354). The level of trust placed on those in a position of responsibility was hypothesized by the researchers as having an impact on the level of perceived risk. The participants responded with indication that social trust increases when the person in the position of authority or responsibility shares similar salient values as the individual (Siegrist et al.).

The authors identified the importance of emergency management professionals to comprehend those individuals lacking knowledge and understanding of an emergency situation will be unable to assess the risk. Additionally, these same individuals will increasingly turn to those in leadership positions for support and direction. This relationship will be based on establishment of social trust through shared values and demonstrated by the emergency management professional's understanding of best practices in emergency situations (Siegrist et al., 2000).

Emergency Preparedness Training

In the United States of America, September 11, 2001 has become the unofficial transition point regarding the advancement of safety and security preparedness. What had previously been a response to military threats during the Cold War era, emergency management has progressed from the civil defense model to that of a professional emergency management structure. This structure has continued to evolve through the advancement of other governmental safety regulations as mandated by the Occupational Safety and Health Administration (OSHA), the Federal Emergency Management Agency (FEMA) and the Clery Act specific to institutions of higher education. Such advancement has resulted in a change of paradigm to view all safety and security risks as matters of All-Hazard emergency preparedness (Lester, 2007; Waugh & Streib, 2006).

Psychosocial Safety and Transformational Leadership

The study and adaptation of the psychosocial safety climate within organizations has been advanced in the decade since the tragedies recorded in history on September 11, 2001. The studies have advanced understanding of the impact on organizational change within the cultures of emergency preparedness. A review of current research and

professional journal articles revealed that theories of leadership and organizational change are applicable in the process of identifying the need for change and the requirements to successfully facilitate the change of emergency preparedness.

Sociologist James Burns was credited with having advanced the concept of Transformational Leadership. Burns identified the role of leadership moving beyond the performance and transactional motivations of followers to that of empowering followers to achieve personal development and the larger organizational goals and purposes (Northouse, 2010).

The transformational leader was identified as having the ability to inspire followers to a higher vision. Followers were influenced to commit to change that allowed the organizational vision to be achieved (Herold & Fedor, 2008). Northouse stated, "Transformational leadership fits the needs of today's work groups, who want to be inspired and empowered to succeed in times of uncertainty" (p. 171).

The role of the leader in producing transformation serves as only one half of the change equation. The motivation and willingness of the follower remains an essential part of the organizational change management process specific to transformational leadership theory. The idea of a change process being prescribed to organizational members involves the concept of change schema. Jaros (2009) defined change schema as, "a cognitive structure reflecting the individual's sense of the change initiative's valence, meaning, salience, significance, and their personal influence on it" (p. 317). This concept of a process to understand the need for change and then participating in the change process is best described through the application of the Lewin model of organizational change.

Organizational Change

Social psychologist Kurt Lewin was credited with advancing the understanding of organizational change. Lewin identified that the best means of understanding an organizational system was to intervene in the system and to attempt to bring change (Schein, 2010). Bennis (2008) credited Lewin's idea by stating, "It is through changing something that one truly comes to understand it" (p. 184).

Weiner (2009) articulated the Lewin model by stating;

> Change management experts have prescribed various strategies to create readiness by unfreezing existing mindsets and creating motivation for change. These strategies include highlighting the discrepancy between current and desired performance levels, fomenting dissatisfaction with the status quo, creating an appealing vision of a future state of affairs, and fostering confidence that this future state can be achieved. (p. 2).

The Lewin Model provided understanding of the process required for an individual to become aware of the need for change, develop openness to receive new information, and to identify the benefit of sustaining the new behavior (Schein, 2010).

The application of the change model is dependent on the change target having acquired a state of change readiness. The state of readiness is required throughout the organizational level within individuals, work groups or teams, as well as the hierarchical levels (Weiner, 2009).

Research conducted by Twedt, Saksvik, and Nytro (2009) identified that a well-designed organizational change process served to stabilize workers' stress resulting in a positive or healthy impact on workers. A commitment to change and an efficacy to

change is required. Weiner (2009) explained, "Change efficacy refers to organizational members' shared beliefs in their collective capabilities to organize and execute the courses of action involved in change implementation" (p. 2).

Ultimately, change readiness within an organization is subject to the individual organizational member being willing to understand and cooperate with the change. Organizational change theories normally address the requirements imposed on the organization to make change. The organization becomes known as the change target when addressing internal and external issues. Issues involve factors such as internal culture and value based change as well as external factors of environment and competition (Weiner, 2009).

Change readiness has expanded beyond internal safety and security issues. The requirement of organizations to assess external threats regarding All-Hazard emergency events has escalated the need for organizational members to increase efficacy. Natural emergency events such as hurricanes and tornadoes continue to challenge the awareness levels of organizations. Most alarming are criminal events occurring at churches, universities, shopping malls and movie theaters. Such acts of violence serve to alert organizational members of the need for assessment and potential changes in safety and security measures within the organization, including institutions of higher education.

The organizational members that serve in leadership positions and seek to enact organizational change are identified as the change agents. Often, the organizational structure results in those positioned higher in the hierarchy serving as the dominate change agent. Leadership theories indicate that all organizational members have opportunity to influence change and serve as leaders or change agents.

Safety-Specific Transformational Leadership

The modern organizational environment has been assessed (Dollard, Tuckey, & Dormann, 2012; Twedt, Saksvik, & Nytro, 2009) as requiring awareness of the psychosocial safety climate of the organizational members. As mentioned previously, the focus on work place safety has expanded beyond the governmental regulations of work place conditions, to include an All-Hazards approach to emergency preparedness (Lester, 2007; Waugh & Streib, 2006). The All-Hazards approach has resulted in the requirement for the change agents to develop collaborative working relationships with organizational members as well as external stakeholders that support the organizational change efforts.

Research has identified the role of Transformational Leadership theory (Herold & Fedor, 2008; Inness, Barling, Turner, & Stride, 2010; Kelloway & Barling, 2010; Lester, 2007; Michaelis, Stegmaier, & Sonntag, 2009; Mullen & Kelloway, 2009; Mullen, Kelloway, & Teed, 2011) in supporting change agent efforts in obtaining commitment to change by the change target. The researchers further identified that improvements were achieved in the psychosocial safety climate and level of change commitment by organizational members as a result of leaders utilizing safety-specific transformational leadership behaviors. The role of organizational change in pursuit of developing and sustaining cultures of emergency preparedness within organizations of higher education remains a valid area for further research.

Mullen and Kelloway (2009) identified a safety-specific perspective of the Transformational Leadership model:

- Idealized Influence: Encouraging change agents to communicate a vision of organizational safety and serve as role models rather than focusing on performance and profit at the expense of a safe environment.
- Inspirational Motivation: The communication of the challenge to achieve exceptional levels of safety standards and exceed minimum safety requirements.
- Intellectual Stimulation: The actions of the leader in encouraging followers to critically think and problem solve specific to safety related issues.
- Individual Consideration: The leader engaging in behaviors that demonstrate a personal concern for the safety and well-being of the organizational members (Mullen & Kelloway).

The authors suggested that transformational leaders may not prove to be safety leaders. "Thus, to ensure that safety in the workplace is a priority, we suggest that safety-specific transformational leadership behaviors will result in better safety outcomes than general transformational leadership" (Mullen & Kelloway, 2009, p. 256). As a result, the authors recommended that leaders be provided training in the area of safety-specific transformational leadership behaviors.

Research conducted by Dollard et al. (2012) identified four elements of leadership specific behavior that serve to advance the psychosocial safety climate in an organization:

1) The level of senior management support and commitment for stress prevention through involvement and commitment.
2) The priority given by management to psychological health and safety versus productivity goals.
3) The extent and effectiveness of organizational communication.

4) The scope of organizational participation and involvement in relation to psychological health and safety. (p. 695).

The authors identified increased levels of organizational membership readiness for change efforts as a result of the safety-specific transformational leadership behaviors modeled by leadership as well as established in policies, practices and procedures.

Twedt et al. (2009) identified that organizational members naturally cope with levels of psychosocial stress due to work performance stress. The levels of stress increased when All-Hazard safety issues were factored as part of the assessment. The authors' research identified reduction of stress levels when members observed active efforts by leadership to address safety issues through a planned organizational change process.

Planned organizational change efforts were examined by Nielsen, Taris, and Cox (2010) through the design and implementation of intervention strategies. The authors identified that change efforts were enhanced when leadership prioritized attention to the following four factors:

1) Leadership provided visible and essential support and involvement in the change intervention effort.
2) The impact of the intervention effort was identified to be enhanced by the consistency and commitment of the intervention efforts.
3) The intervention outcomes were directly impacted by the positive attitudes held by all intervention participants.

4) Participants displayed a higher level of awareness of the intervention efforts based on the increase of monitoring participant attitude toward the intervention efforts. (p. 221).

Michaelis et al. (2009) theorized that, "transformational leadership 'transforms' followers to be more receptive to organizational change" (p. 412). The authors conducted research and found increased participation by organizational members based on the direct efforts of the leadership to create a positive change environment.

In contrast, Mullen et al. (2011) identified leadership behavior they termed inconsistent leadership. The authors stated research revealed scenarios of leadership behavior alternating between transformational and passive leadership styles. The result was a reduction in the prioritization of the safety-specific perspective of the Transformational Leadership Model and a subsequent reduction in the psychosocial climate as exhibited by organizational members (Mullen et al.).

Organizational leadership was identified as being predictive of the psychosocial climate in a study completed by Kelloway and Barling (2010). The authors identified a positive correlation between leadership development and training with an enhanced psychosocial climate. The authors identified a measureable positive change in the attitudes of both leaders and employees toward the organizational change efforts in the area of safety and security (Kelloway & Barling).

This change was based on the training and development of safety-specific transformational leadership skills (Kelloway & Barling, 2010). The development of training and leadership to advance the transformation of organizations and communities

toward safety-specific purposes is fundamental to the emergency management community.

The modern emergency management movement of merging the mitigation, preparedness, response, and recovery phases with natural disasters and acts of terrorism was identified by Perry and Lindell (2003). The authors emphasized the need and value of emergency planning, training, and development of written plans. Research has identified a pattern of communities prioritizing the development of written plans that ultimately are placed on a shelf and noted as an emergency management objective having been accomplished. Perry and Lindell confirmed the importance of written plans and conveyed the legitimacy of promoting emergency planning and training.

Emergency preparedness addresses the level of readiness of a political jurisdiction to react to threats from the environment in a manner that minimizes the negative consequences to the health and safety of the community by way of individuals, physical structures, and systems. Emergency preparedness occurs through the processes of planning, training, and exercising in addition to the acquisition of equipment and resources to support emergency actions (Perry & Lindell, 2003).

The authors identified 10 planning process guidelines in an effort to support the efforts of emergency planning;

- Preparedness planning should be based on data collected through hazard assessment and vulnerability analysis.
- Effective planning should encourage appropriate response and actions by emergency managers.

- The planning process should promote response flexibility noting that each disaster presents unique circumstances.
- Planning should be collaborative and support the responsibilities and objectives of each professional stakeholder group.
- Planning should be comprehensive and address multi-hazard scenarios.
- Plans should include training and repeated drills, exercises, and after-action critiques.
- The plans should require multi-agency response testing of interoperable communications, personnel development, response capabilities, and stake-holder coordination.
- The emergency planning should be sustained and updated on an annual basis or immediately upon changes in conditions or resources.
- The proactive efforts of sustaining emergency planning should be achieved despite the likely apprehension and reluctance by elected officials and authorities responsible for financial resources and public relations.
- The emergency plan should be developed and exercised while being recognized as subject to change once implemented in an actual emergency situation (Perry & Lindell, 2003).

The concept of recognizing and upholding best-practices was established as a result of citizens holding emergency management officials responsible for inadequate emergency response. The result was the development of written procedures and

subsequent training of emergency responders to validate appropriate and effective emergency response (Perry & Lindell, 2003).

The emergency management profession has maintained interest in expanding preparedness beyond the emergency workers into the general community (Zhang, Lindell & Prater, 2009). The authors identified a lack of research regarding community preparedness in the effort to mitigate against natural disasters and to prepare businesses for the response and recovery phases of a disaster scenario.

Businesses were identified as being prone to disruption due to a disaster by means of direct physical structural impact, disruption of utility resources, and the loss of pre-disaster customers due to relocation of residents and the lack of discretionary spending (Zhang et al., 2009). The concepts of hazard adjustments were identified by the authors specific to the practice of identifying and implementing plans to reduce the environmental threats to business operations, personal safety, and the functioning of the community. Further research into the development of emergency planning and hazard adjustments for the variable business sizes, functions, and community locations was identified by the authors. Emphasis was placed on the need for additional research regarding different socio-demographic and socio-economic settings (Zhang et al.).

Historical data has been identified regarding the ability for communities in the Unites States of America to successfully recover after natural disasters (Lindell & Prater, 2003). This ability to recover was accredited to available resources being offered to the impacted community by other communities throughout the nation as well as advanced hazard mitigation and emergency preparedness efforts. The authors encouraged research regarding the emergency preparedness concepts recognized for productive results. These

included hazard mitigation practices, emergency preparedness practices, community recovery resources, and extra-community assistance (Lindell & Prater).

Hazard mitigation practices were identified by the authors as pre-disaster impact efforts of planning, educating, and policy development. Emergency preparedness practices were defined as including actions to allocate and deploy emergency response resources in response to an emergency event. Community recovery resources were identified to include the preplanned emergency management personnel and equipment response in addition to the efforts of available community members. The authors emphasized that availability of all responders remained contingent on the impact zone of the emergency situation and the degree of associated damage suffered by individuals and resources (Lindell & Prater, 2003). The research was identified as being applicable to communities of higher education with similar variables of population, resources and degree of emergency event impact.

The role of community involvement in the emergency preparedness and training process has remained a global priority. Yamori (2009) facilitated an action research study to assess the application of the community of practice theory related to co-generative learning originally presented by Lave and Wener (as cited in Yamori, 2009). The study utilized a gaming approach to involve multiple stakeholders throughout Japan in the shared learning process of emergency preparedness. The action research resulted in the planning, production, and playing a game of developing an emergency kit. The reality of the game provided actual emergency kits for at-risk communities and taught the stakeholders the benefits of co-generative learning. The action research provided a

foundation for additional study of the application of the "community of practice" theory within emergency preparedness planning and training at institutions of higher education.

Simpson (2002) conducted the evaluation of an effort initiated by Bay Area Neighborhood Emergency Training (BayNET) that requested members conduct community earthquake drills in April, 1996. BayNET was founded as a voluntary association of communities that had developed community-based disaster preparedness programs.

Simpson (2002) concluded that research had focused on hazard education and emergency drills specific to emergency managers while not addressing the role of the public community. The author identified research (Simpson, 1996; Simpson, 2000) that demonstrated community-based emergency preparedness efforts that resulted in the increase of community unity, solidarity in self-protection efforts, and response capabilities.

The community-based emergency preparedness organizations were observed to provide funding and administration through citizen involvement while reducing the role of governmental emergency management agencies to conduct the preparedness and response training. The BayNET evaluation conducted by Simpson (2002) identified four benefits to advancing community-based disaster preparedness education and training;

- Community residents are provided opportunity to experience scenarios of potential disaster situations.
- Exercises are conducted in controlled and safe environments to reduce participant fears and anxiety.
- Participants are encouraged to dialogue and learn with other citizens.

- Unity and solidarity of citizens promote advancing the culture of emergency preparedness within the community (Simpson).

The value of developing consistent community participation in advancing a culture of community emergency preparedness through education and practical exercises was identified as a priority (Simpson, 2002).

Sustained emergency preparedness has been recognized as an effort to increase and extend the knowledge and skill retention rates. Improved retention rates have remained the goal despite extended periods of time between emergency events (Compton & Chien, 2008). Research was conducted to determine the level of knowledge retention by participants who had completed Crisis Intervention Team training. The authors also sought to measure the impact of the number of years work experience had on information retention by the participants (Compton & Chien).

The authors distributed surveys to police officers who had completed Crisis Intervention Team training. The participating police officers completed profile information to provide research data regarding years of police work experience. The research survey identified the level of information retained by participants in comparison to previous training and testing specific to crisis intervention (Compton & Chien, 2008).

The research results indicated that knowledge scores of the participants decreased in varying degrees of time after the Crisis Intervention Team training. The research findings also suggested that the level of knowledge retention remained higher in proportion to the number of years of work experience by the participants (Compton & Chien, 2008).

These research findings offered relevance to knowledge retention after employee training. Additional research in the area of continuing education and in-service training in the areas of crisis intervention and emergency preparedness are encouraged by this research.

Kerby, Brand, Johnson, and Ghouri (2005) conducted research to evaluate public health workers' competence for disaster preparedness. The research was motivated by an increase in preparedness efforts in the aftermath of the September 11, 2001 terrorist attacks on the United States. The researchers surveyed to assess perceived confidence levels to respond to an emergency event and perceived need for training in emergency response. The survey consisted of 38 general emergency response competency items and utilized a Likert-type scale for rating participant levels of response.

The survey participants reporting a lower level of confidence to respond to an emergency event tended to also indicate a high need for training to properly respond to emergency event. The findings indicated a parallel between emergency preparedness training and competency of emergency response. The authors identified value in standardized training within emergency management to raise the levels of emergency worker confidence and accurate assessment of response capabilities (Kerby et al., 2005).

Henning et al. (2004) conducted research to evaluate the value of a tabletop bioterrorism exercise conducted within a hospital environment subsequent to an increase in hospital emergency preparedness efforts following the critical incidents of September 11, 2001. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) expanded requirements for hospitals to develop written hospital emergency preparedness

plans and hospitals were mandated to implement all-hazards type planning (Henning et al.).

The authors developed the survey to evaluate the perspectives of the participants regarding eight content areas including (a) improving knowledge regarding pre-planning, (b) improving stakeholder communication, (c) improving familiarity with the organizational disaster plan, (d) improving knowledge regarding the command center model, (e) improving understanding of the organizational communication plan, (f) improving knowledge of community resources, (g) improving coordination between hospitals, and (h) improving knowledge of bioterrorism agents (Henning et al., 2004).

It was determined that the participants reported a high level of approval for the use of a tabletop exercise as a method to provide improved awareness and knowledge within preparedness training. The participants indicated a benefit to having experienced the process of problem solving and critical thinking with stakeholders and indicated positive learning outcomes regarding the eight content areas. Emphasis was placed on the recognition of the need for additional training specific to the command center model (Henning et al., 2004).

The research provided contribution to scholarly writings and scientific research regarding emergency preparedness training within an organization that includes multiple stakeholders. This research is supportive of efforts to advance emergency preparedness training within the institutions of higher education.

Forthun and McCombie (2011) offered quantitative research findings that suggested the benefits of professional development of faculty in the area of crisis intervention and emergency management. The authors suggested continuing education

may result in improved response in emergency situations. The authors found that professional development training added to collaborative efforts among faculty and encouraged a culture of strength development within the organization. This research contributes to the efforts to support sustained emergency preparedness within the environments of colleges and universities (Forthun & McCombie).

Conclusions

This chapter reviewed the empirical and pragmatic literature on developing and advancing a culture of emergency preparedness in academic environments. The literature discussed the topics of crime on campus, the legislative response to campus crime, the role of public safety, emergency services appropriate for college, perceptions of risk and preparedness, and emergency preparedness training. A review of the scientific literature did not identify the development of emergency preparedness awareness or training within the academic community. The literature did identify efforts in the emergency medical profession as well as the progress of the emergency management profession developing preparedness education in public communities.

Griffin (2009) identified the modern anticipation that public safety officials at universities and colleges are responsible for the advancement of safety and security efforts under the mandates of the Clery Act legislation and the emergency management community standards. The challenge remains for higher education to seek to determine the level of awareness and preparedness to properly prepare for and respond to both criminal activity and emergency events.

Henning et al. (2004) established the validity of emergency preparedness training within organizations that contain multiple stakeholders. The process of developing

organizational cultures of preparedness requires the application of organizational change models. The organization consists of real human beings. Individuals within the organization hold goals and aspirations that ultimately synergize with others to create a larger good for the organization. It remains the responsibility of the organizational leaders to sustain the efforts of assessment and awareness as to the need for change.

Change is a required element of modern organizations as internal and external forces require flexibility. Organizations have been required to transform their processes and systems to sustain their values, cultures and purpose. Bennis (2003) stated, "Resisting change is as futile as resisting weather, and change – relentless change – is our weather now. It is that constant and that unpredictable" (p. 162).

The All-Hazards paradigm of emergency management serves to agree with the analogy of weather being unpredictable. Organizational hazards of safety and security involving natural causes as well as human acts of crime and violence are now to be considered areas for sustained assessment and change efforts. The role of Safety-Specific Transformational Leadership remains a current area of study. Future research and study of organizational change will benefit from seeking to better understand the role of organizational leaders in advancing the psychological safety of organizational members.

These dynamics serve to encourage and support further research into the perceptions of stakeholders within the higher education community; specifically, regarding their perceptions of risks of emergency events to occur and their perception of preparedness to respond to such emergency events.

Life in the ivory tower of the academic community is generally removed from harm and violence. Federal and State regulations mandate attention be dedicated to risk

assessments on behalf of students. Additional proactive efforts to mitigate and prevent emergency events from occurring on campuses and thereby impacting faculty, staff and students is encouraged through collaborative relationships. The efforts of academic risk management are identified as best shared between faculty and administration (Franke, 2003).

CHAPTER III

METHODOLOGY

Introduction

The previous chapter provided a review and discussion of professional literature regarding the development of a culture of emergency preparedness in academic environments. Researchers (Griffin, 2007; Griffith et al., 2004; Schafer et al., 2010) have suggested that colleges and universities are expected to respond to increased all-hazard emergency management events with relevant professional safety and security paradigms.

Research was found lacking in the application of emergency preparedness at institutions of higher education and more specifically with respect to how faculty perceive the level of risk for hazardous events at their institution. Identification of risk and preparedness perceptions is the foundation of the development of emergency management training and education in the effort to advance cultures of emergency preparedness (Forthun & McCombie, 2011; Thorne et al., 2003; Zhang et al., 2009).

The purpose of this study was to provide insight into the prevailing views of institutions of higher education regarding risk and levels of preparedness to respond to emergency events. The study was guided by the following research questions:

1. To what extent do faculty at private institutions of higher education perceive the potential for an emergency event to occur on their campuses?

2. To what extent do faculty at public institutions of higher education perceive the potential for an emergency event to occur on their campuses?

3. Are there differences in the extent to which faculty at private or public universities perceive the potential for an emergency event to occur on their campuses?

4. To what extent do faculty at private institutions of higher education assess their level of preparedness to respond to an emergency event on their campuses?

5. To what extent do faculty at public institutions of higher education assess their level of preparedness to respond to an emergency event on their campuses?

6. Are there differences in the extent to which faculty at private or public universities of higher education assess their level of preparedness to respond to an emergency event on their campuses?

7. Is there a relationship between risk and preparedness responses by private college faculty to risk and preparedness responses by public college faculty?

Research Design

This study was conducted to provide insight into the prevailing views of institutions of higher education regarding risk and levels of preparedness to respond to emergency events. It was determined that a descriptive research technique utilizing quantitative methodology was the effective research design. Robson (2002) suggested that descriptive survey research provided information regarding characteristics and relationships of study participants. In this current study, descriptive data was sought to provide correlational information; specifically the perspectives of higher education institutions regarding risk and levels of preparedness to respond to emergency events.

A non-experimental fixed design was utilized to advance the descriptive research goals of this study. According to Robson (2002) a fixed design promotes descriptive purposes as well as allowing opportunity for explaining and understanding perspectives of individuals and groups. The technique was further explained in that, “Dealing with

things as they are, rather than as modified by the experimenter, has the advantage of not disturbing whatever it is that we are interested in" (p. 155).

A Likert-type scale survey was designed for self-completion by participants. The survey identified two areas of data collection: (a) faculty perception of risk that an emergency event may occur on the university campus and, (b) faculty self-assessment regarding the level of preparedness to respond to an emergency event.

The researcher identified a total of 34 emergency events relevant to (a) personal emergency events, (b) property emergency events, and (c) natural emergency events. The list of emergency events was generated from the seven reportable crimes identified and mandated for reporting by the Clery Act and 27 all-hazards planning assessment recommendations published by the Federal Emergency Management Agency (FEMA). The emergency events were listed in alphabetical order within the specific event sections rather than by a ranking of perceived frequency or importance. The alphabetization was a continued effort to promote the fixed design and reduce any potential influence by the researcher.

Population

The population for the research study included the faculty from two private universities and two public universities located in the Midwest. Selection of participants was completed through random stratified sampling. Stratified sampling was utilized to more accurately depict the characteristics of the sample. The population group consisted of faculty members. The sample consisted of full-time faculty members assigned to the position of Department Chairpersons at each of the universities. They were invited to participate in the study. The decision was made to seek the participation of Department

Chairpersons as representatives of the larger body of institutional faculty based on the responsibility associated with the position of Department Chairperson. The researcher surveyed the perspectives of faculty members that served in a full-time capacity, held responsibilities that included supervision of other faculty members, as well as having understanding of the general university environment. Voluntary participation by prospective participants resulted in the random sampling of the stratified sample.

The participating universities were each similar in that they provided residential housing and academic facilities for undergraduate students and academic facilities for graduate level programs. The 2011-2012 school year web sites for each of the participating universities reported faculty members totaling ($N = 375$) at the private universities and ($N = 1{,}335$) at the public universities.

The private university total faculty member population of 375 was represented by a sample population of $n = 79$ (22%) departmental chairpersons. The public university faculty member population of 1,335 was represented by a sample population of $n = 78$ (5%) departmental chairpersons.

The sample population included ($N = 157$) potential participants with survey responses totaling $n = 63$ for a participation rate of (40.13%). Demographic analysis of the sample population identified characteristics of the total sample population included $n = 23$ female (36.5%) and $n = 40$ male (63.5%). The ethnicity of the participants included Black or African American, $n = 2$; White, $n = 60$; and Other, $n = 1$.

Data Collection

This study collected the responses of participants regarding their perspectives in two areas: (a) their perceptions of the potential for risk of an emergency event to occur on

their campus and, (b) their level of preparedness to respond to an emergency event that occurred on their campus. A total of seven research questions guided the process of examining the two areas of risk perceptions and preparedness perceptions.

The researcher identified the absence of previous research or survey instruments designed to address the perceptions of the higher education community specific to perceptions of risk and preparedness and developed an electronic web-based formatted survey to accomplish the descriptive purposes of the study.

The survey instrument was constructed and field-tested with faculty members of a Midwestern community college after receiving IRB approval. The field study participants completed the survey and provided subsequent recommendations for clarifying the survey.

The researcher established IRB approval at each of the four universities participating in this study. Each institution subsequently provided a contact person to assist with identifying the Departmental Chairpersons at each university. Email distribution lists were created specific to each participating university, and the researcher created e-mail communications to support a three-part distribution of request for participation at each university. (Appendix A).

The email communication included the purpose of the study and an invitation to proceed to the referenced web site address link to access the electronic web-based survey. The email communication also offered an incentive to participate in the survey. In recognition of the participant's time investment, two separate $25.00 Best Buy gift cards were presented to winners of a random drawing from the participants who completed the survey and agreed to compete for the reward.

The email communications were distributed to the identified departmental chairpersons at each of the universities. The timing of the distribution was factored into the academic school year schedule of the research population. The ability to obtain the attention and participation of faculty members during the unique academic schedules associated with spring and fall semesters was an important data collection consideration.

The email communications were distributed at each university over three timed periods to provide invitations at the beginning, middle and end of the data collection month. The electronic web-based formatted survey software provided notification to the researcher that survey data was being received and secured into the data base throughout the period of email communication distribution.

The survey instrument was designed to provide acknowledgement of participant consent and the collection of descriptive categorical data. The survey identified a total of 34 emergency events organized into three corresponding sections related to personal emergency events, property emergency events, and natural emergency events.

The survey instrument utilized a Likert-type scale to provide the researcher opportunity to secure the participants' perceptions of range in response to the risk and preparedness situation. Rating options provided coding of 1 through 6, with 1 representing highly unlikely, 2 very unlikely, 3 unlikely, 4 likely, 5 very likely and 6 highly likely.

Analytical Methods

The quantitative data secured through the participants' completion of the electronic web-based survey instrument was statistically analyzed utilizing the Statistical Package for the Social Sciences (SPSS) software for Windows version 19.0, hereafter

referred to as SPSS. Emphasis was placed on the examination of the data by the researcher to achieve the descriptive analysis as prescribed for this study (Leedy & Ormrod, 2010).

Categorical data was analyzed to provide understanding and descriptive evidence of the sample population. Means and standard deviations were computed to describe responses specific to the (a) faculty perceptions of the potential for an emergency event, and (b) faculty perceptions of the level of preparedness for emergency events by respondents from both the private and public universities.

To analyze differences in responses from faculty at private and faculty at public universities on both their perceptions of risk and their level of preparedness independent samples *t*-tests were computed. Further, Analysis of Variance (ANOVA) provided a between-subjects analysis of the differences between the perceptions of potential risk and the perceptions of levels of preparedness in each of the Private universities' and Public universities' responses.

Limitations

The social science community has established the understanding that scientific research contains limitations as a result of various factors (Robson, 2002). This study identified similar limitations which are valid for consideration. These limitations are acknowledged and will be discussed within the focus of (a) uniqueness of topic, (b) access and longitudinal effects, and (c) affect value on perspective.

Uniqueness of topic

As previously identified, scientific study has been completed in the area of emergency preparedness within the emergency medical community (Wisniewski,

Dennik-Champion, & Peltier, 2004). Studies have also been completed specific to developing cultures of preparedness for the general community (Shiwaku & Shaw, 2008). The topic and subsequent research regarding emergency preparedness at institutions of higher education remains unique and limits exigent research findings and research survey instruments.

This study identified opportunity for the recommendation of further study in the specific area of developing and sustaining cultures of emergency preparedness at institutions of higher education. Future studies would benefit from replicated study of faculty perceptions while also considering expanding the research to obtain the perspectives of institution administrators, staff and students.

Access and Longitudinal Effects

This study investigated the perspectives of faculty members at four institutions of higher education. The academic calendar of higher education presented a natural limitation of access to faculty members as they prioritized faculty responsibilities. This study involved data collection at the end of a semester prior to an extended period of break for faculty members. The timing of data collection therefore was identified as a limitation for access to participants.

In addition to faculty member access limitations, the researcher was limited in time to conduct the investigation within program guidelines. The resulting longitudinal effect became apparent and resulted in the recommendation for continued study with participants being surveyed in the middle of each academic semester calendar period.

Affect value on perspective

This study placed emphasis on identifying and comparing faculty member perceptions of risks of emergency events to occur and their perception of preparedness to respond to such emergency events at their institutions. Previous researchers (Ajzen, 1991; Ajzen, 2002; Slovic et al., 2005) identified the effect of distress on perspectives of individuals considering emergency situations. Specifically this was identified and discussed as the affect heuristic and considered the study of emotions and distress.

The potential was identified by the researcher of this study for participants to experience a degree of negative emotions and distress affect while considering responses to the survey factors specific to emergency situations. This potential limitation was minimized by offering a statement of informed consent at the beginning of the survey instrument. The statement acknowledged that participation in the study was voluntary and that the researcher deemed it not possible to identify all potential risks in an experimental procedure. The participants were advised that a level of distress may be identified while considering the various emergency events as listed in the survey instrument. While the researcher had no control regarding the participants' emotional responses or perspectives to the 34 stated emergency events, the fact that the survey was completed within the environment and control of the participants should have minimized this research limitation.

CHAPTER IV

FINDINGS AND CONCLUSIONS

Introduction

This study sought to provide insight into the prevailing views of institutions of higher education regarding risk and levels of preparedness to respond to emergency events. A review of the literature provided observation that communities and businesses have actively sought to understand the dynamics of emergency preparedness. Universities and colleges have been active in seeking understanding specific to criminal statistics; however, limited research or understanding has been established in the development of cultures of preparedness at institutions of higher education.

This study investigated two areas: (a) faculty perception of the potential for an emergency event on their campus, and (b) their level of preparedness to deal with emergencies. The study investigated faculty at both private and public universities.

The purposes of this chapter served to report and interpret the findings from the research study. Additionally, this chapter includes implications and recommendations in the area of emergency management at institutions of higher education.

Findings

A self-completion electronic format survey was created to collect data. The participants were asked to respond to the Likert-type scale options regarding two areas of data collection: (a) faculty perception of risk that an emergency event may occur on the university campus and, (b) faculty self-assessment regarding preparedness level to respond to an emergency event that may occur on the university campus. The two data collection areas contained an identical list of 34 emergency events. The list of emergency events was

generated by the researcher based on seven reportable crimes mandated by the Clery Act and 27 all-hazards planning assessment recommendations published by the Federal Emergency Management Agency (FEMA). The emergency events were listed in alphabetical order rather than by a ranking of perceived frequency or importance. Findings are presented in two sections: Section one presents findings relative to faculty perceptions of the potential for emergency events on their campus. Section two presents findings relative to their perceptions of preparedness for emergency events.

Faculty Perceptions of Potential for Emergency Events on Campus

Research question one regarding the perception of risk at private institutions was analyzed through the analysis of means and standard deviations and results presented in Table 1.

Table 1

Faculty Perceptions of Potential Emergency Events at Private Institutions

Variable	*n*	*M*	*SD*
Abduction	39	2.00	1.05
Aggravated assault	39	2.87	0.89
Armed violence/active shooter	39	2.38	1.18
Civil Disorder	39	2.62	1.07
Cyber Crime	39	3.92	0.90
Drug-related violation	39	4.23	1.06
Hate Crimes	39	2.95	1.28

(continued)

Table 1 (continued)

Faculty Perceptions of Potential Emergency Events at Private Institutions

Variable	*n*	*M*	*SD*
Illegal weapons possession	39	2.95	1.26
Liquor law violation (Consumption by minor)	39	4.85	0.93
Manslaughter	39	1.97	1.04
Medical Emergency (Requiring emergency medical responders)	39	4.77	1.29
Murder	39	1.87	1.06
Pandemic Health Emergency (Swine Flu)	38	3.32	1.12
Robbery (of person)	39	4.05	1.17
Sexual Harassment	39	3.90	1.19
Sex offenses (forcible or non-forcible)	39	3.79	1.11
Suicide	38	3.37	1.13
Terrorism	39	2.08	0.96
Arson	39	2.51	1.07
Burglary	39	4.05	1.05
Fire (Structure)	39	3.00	0.89
Hazardous Materials Incident	39	2.79	0.98
Motor vehicle theft	39	3.51	1.25
Explosive Device (e.g. Bomb)	39	2.46	1.27
Nuclear Power Plant Incident	39	1.74	1.14

(continued)

Table 1 (continued)

Faculty Perceptions of Potential Emergency Events at Private Institutions

Variable	*n*	*M*	*SD*
Theft (of property)	39	4.54	0.94
Aircraft Accident	39	2.23	1.42
Vehicle Accident	39	4.56	0.85
Sustained Utility Interruption	39	3.72	1.28
Vandalism	39	4.41	0.94
Earthquake	39	2.03	1.01
Extreme temperature weather conditions (Cold or Hot)	39	4.62	0.99
Flood/Flash Flood	39	2.82	1.28
Severe Thunderstorm, Hail, Tornado	39	4.82	0.89

Table 1 contains the mean ratings and standard deviations of the faculty perceptions of potential for emergency events to occur at their private institutions. A rating of 1.0 indicated highly unlikely and a rating of 6.0 indicated highly likely. The mean scores were generally in the (M=3.3) range indicating a perception of risks being unlikely to occur.

The potential emergency event identified by faculty as having the lowest risk of occurring was a Nuclear Power Plant Incident (M = 1.74, SD = 1.14), indicating a perception of highly to very unlikely to occur. The potential emergency event identified by faculty as having the highest risk of occurring was Liquor law violation - Consumption by minor (M = 4.85, SD = 0.93), indicating likely to very likely to occur.

Research question two regarding the perception of risk at public institutions was analyzed through the analysis of means and standard deviations and results presented in Table 2.

Table 2

Faculty Perceptions of Potential Emergency Events at Public Institutions

Variable	*n*	*M*	*SD*
Abduction	24	1.96	0.91
Aggravated assault	23	3.35	1.03
Armed violence/active shooter	22	2.36	1.09
Civil Disorder	23	3.30	1.26
Cyber Crime	23	3.91	1.16
Drug-related violation	22	4.86	1.04
Hate Crimes	23	3.39	1.16
Illegal weapons possession	23	3.43	1.27
Liquor law violation (Consumption by minor)	23	5.52	0.79
Manslaughter	23	2.13	1.01
Medical Emergency (Requiring emergency medical responders)	22	5.23	0.87
Murder	22	2.50	1.26
Pandemic Health Emergency (Swine Flu)	22	3.41	1.30
Robbery (of person)	23	4.09	1.38

(continued)

Table 2 (continued)

Faculty Perceptions of Potential Emergency Events at Public Institutions

Variable	*n*	*M*	*SD*
Sexual Harassment	23	4.35	1.34
Sex offenses (forcible or non-forcible)	23	4.52	1.34
Suicide	23	4.13	1.14
Terrorism	23	2.04	1.33
Arson	23	2.83	1.03
Burglary	23	4.70	1.11
Fire (Structure)	23	3.57	1.59
Hazardous Materials Incident	23	3.30	1.19
Motor vehicle theft	23	3.96	1.11
Explosive Device (e.g. Bomb)	23	2.43	1.20
Nuclear Power Plant Incident	22	1.23	0.69
Theft (of property)	23	4.83	1.30
Aircraft Accident	23	2.13	1.63
Vehicle Accident	23	5.00	0.91
Sustained Utility Interruption	23	3.70	1.33
Vandalism	23	4.78	1.00
Earthquake	23	2.65	1.23

(continued)

Table 2 (continued)

Faculty Perceptions of Potential Emergency Events at Public Institutions

Variable	*n*	*M*	*SD*
Extreme temperature weather conditions (Cold or Hot)	23	4.35	1.11
Flood/Flash Flood	23	2.83	1.40
Severe Thunderstorm, Hail, Tornado	23	5.17	0.72

Table 2 contains the mean ratings and standard deviations of the faculty perceptions of potential for emergency events to occur at their public institutions. A rating of 1.0 indicated highly unlikely and a rating of 6.0 indicated highly likely. The mean scores were generally in the (M = 3.5) range indicating a perception of risks being unlikely to occur.

The potential emergency event identified by faculty as having the lowest risk of occurring was a Nuclear Power Plant Incident (M = 1.23, SD = 0.69), indicating a perception of highly unlikely to occur. The potential emergency event identified by faculty as having the highest risk of occurring was Liquor law violation - Consumption by minor (M = 5.52, SD = 0.79), indicating very likely to highly likely to occur.

Research question three sought to identify the difference in the extent that faculty at private and public universities perceived the potential for an emergency event to occur on their campuses. The Independent Samples *t*-test was used to analyze the relationships between each of the universities and results presented in Table 3.

Table 3

Comparisons of Faculty Perceptions of Potential Emergency Events at Private and Public Institutions

	Private		Public		
Variable	*M*	*SD*	*M*	*SD*	*t*
Risk	3.29	0.64	3.48	0.88	-1.017

Table 3 contains the mean ratings and standard deviations of the faculty perceptions of potential for emergency events to occur at private and public institutions. An Independent Samples *t* test was completed by comparing the mean score of the private institutions with the mean score of the public institutions. Private university perceptions of risk ($M = 3.29$, $SD = 0.64$) were identified as having no significant difference from the perceptions of risk at Public universities ($M = 3.48$, $SD = 0.88$), $t(61) = -1.017$, $p > .05$. The results indicated no statistically significant difference in the perceptions of the faculty perceptions of potential for emergency events to occur at private and public institutions.

Faculty Perceptions of Preparedness for Emergency Events on Campus

Research question four regarding the extent faculty at private institutions assesses their level of preparedness to respond to an emergency event on their campus was analyzed through the analysis of means and standard deviations and results presented in Table 4.

Table 4

Faculty Assessment of Preparedness to Respond to Emergency Events at Private Institutions

Variable	*n*	*M*	*SD*
Abduction	37	3.51	0.93
Aggravated assault	36	3.72	1.00
Armed violence/active shooter	36	3.61	1.20
Civil Disorder	36	3.86	0.99
Cyber Crime	36	3.53	1.23
Drug-related violation	35	4.23	1.35
Hate Crimes	36	3.72	1.26
Illegal weapons possession	35	3.77	1.29
Liquor law violation (Consumption by minor)	36	4.72	1.14
Manslaughter	35	3.14	1.33
Medical Emergency (Requiring emergency medical responders)	36	5.00	1.07
Murder	36	3.25	1.23
Pandemic Health Emergency (Swine Flu)	35	3.94	1.35
Robbery (of person)	35	4.26	1.22
Sex offenses (forcible or non-forcible)	36	4.11	1.09
Sexual Harassment	36	4.31	1.19
Suicide	35	3.97	1.12
Terrorism	36	3.42	1.40

(continued)

Table 4 (continued)

Faculty Assessment of Preparedness to Respond to Emergency Events at Private Institutions

Variable	*n*	*M*	*SD*
Arson	36	3.64	1.10
Burglary	36	4.22	1.02
Fire (Structure)	36	4.31	0.98
Hazardous Materials Incident	36	3.75	1.00
Motor vehicle theft	36	4.11	1.04
Explosive Device (e.g. Bomb)	36	3.56	1.23
Nuclear Power Plant Incident	36	2.69	1.43
Theft (of property)	36	4.47	0.91
Aircraft Accident	36	3.28	1.56
Vehicle Accident	36	4.61	0.90
Sustained Utility Interruption	36	4.19	1.19
Vandalism	36	4.64	0.83
Earthquake	36	2.97	1.18
Extreme temperature weather conditions (Cold or Hot)	36	4.83	0.97
Flood/Flash Flood	36	3.67	1.17
Severe Thunderstorm, Hail, Tornado	36	5.03	0.85

Table 4 contains the mean ratings and standard deviations of the faculty assessment of preparedness to respond to emergency events at their private institutions. A rating of

1.0 indicated highly unlikely and a rating of 6.0 indicated highly likely. The mean scores were generally in the (M = 3.95) range indicating a perception of the level of preparedness to respond as being likely.

The potential emergency event identified by faculty as having the lowest level of preparedness to respond was a Nuclear Power Plant Incident (M = 2.69, SD = 1.43), indicating a perception of unlikely to very unlikely to be prepared to respond. The potential emergency event identified by faculty as having the highest level of preparedness to respond was Severe Thunderstorm, Hail, and Tornado events (M = 5.03, SD = 0.84), indicating a perception of very likely to be prepared to respond.

Research question five regarding the extent faculty at public institutions assesses their level of preparedness to respond to an emergency event on their campus was analyzed through the analysis of means and standard deviations and results presented in Table 5.

Table 5

Faculty Assessment of Preparedness to Respond to Emergency Events at Public Institutions

Variable	*n*	*M*	*SD*
Abduction	22	3.18	1.44
Aggravated assault	23	3.83	1.11
Armed violence/active shooter	23	3.52	1.44
Civil Disorder	23	4.13	1.18
Cyber Crime	23	3.87	1.42
Drug-related violation	21	4.86	1.01

(continued)

Table 5 (continued)

Faculty Assessment of Preparedness to Respond to Emergency Events at Public Institutions

Variable	*n*	*M*	*SD*
Hate Crimes	22	3.95	1.36
Illegal weapons possession	23	3.78	1.54
Liquor law violation (Consumption by minor)	23	4.70	1.49
Manslaughter	23	3.43	1.53
Medical Emergency (Requiring emergency medical responders)	22	5.23	1.02
Murder	22	3.59	1.59
Pandemic Health Emergency (Swine Flu)	22	4.05	1.21
Robbery (of person)	23	4.17	1.47
Sex offenses (forcible or non-forcible)	23	4.13	1.49
Sexual Harassment	23	4.74	1.14
Suicide	23	4.22	1.35
Terrorism	23	2.91	1.51
Arson	23	3.78	1.28
Burglary	23	4.78	1.09
Fire (Structure)	23	4.65	1.40
Hazardous Materials Incident	23	3.83	1.40
Motor vehicle theft	23	4.43	1.41

(continued)

Table 5 (continued)

Faculty Assessment of Preparedness to Respond to Emergency Events at Public Institutions

Variable	*n*	*M*	*SD*
Explosive Device (e.g. Bomb)	23	3.13	1.69
Nuclear Power Plant Incident	21	1.76	1.38
Theft (of property)	23	4.78	1.28
Aircraft Accident	23	2.96	1.87
Vehicle Accident	23	5.30	0.88
Sustained Utility Interruption	23	3.96	1.82
Vandalism	23	4.83	1.07
Earthquake	22	3.23	1.69
Extreme temperature weather conditions (Cold or Hot)	23	4.43	1.31
Flood/Flash Flood	23	3.48	1.53
Severe Thunderstorm, Hail, Tornado	23	4.87	1.10

Table 5 contains the mean ratings and standard deviations of the faculty assessment of preparedness to respond to emergency events at their public institutions. A rating of 1.0 indicated highly unlikely and a rating of 6.0 indicated highly likely. The mean scores were generally in the (M = 4.0) range indicating a perception of the level of preparedness to respond as being likely.

The potential emergency event identified by faculty as having the lowest level of preparedness to respond was a Nuclear Power Plant Incident (M = 1.76, SD = 1.38),

indicating a perception of highly unlikely to very unlikely to be prepared to respond. The potential emergency event identified by faculty as having the highest level of preparedness to respond was Vehicle Accident events (M = 5.30, SD = 0.88), indicating a perception of very likely to be prepared to respond.

Research question six sought to identify the differences in the extent faculty at private and public universities assess their level of preparedness to respond to an emergency event on their campuses. The Independent Samples *t*-test was used to analyze the relationships between each of the universities and results presented in Table 6.

Table 6

Comparisons of Faculty Perceptions of Preparedness for Emergency Events at Private and Public Institutions

	Private		Public		
Variable	*M*	*SD*	*M*	*SD*	*t*
Preparedness	3.95	0.08	4.02	1.01	-0.33

Table 6 contains the mean ratings and standard deviations of the faculty perceptions of preparedness to respond to emergency events at private and public institutions. An Independent Samples *t* test was completed by comparing the mean score of the private institutions with the mean score of the public institutions. Private university perceptions of preparedness (M = 3.95, SD = 0.08) were identified as having no significant difference from the perceptions of preparedness at public universities (M = 4.02, SD = 1.01), $t(58) = -0.33$, $p > .05$. The results indicated no statistically significant

difference in the perceptions of the faculty perceptions of preparedness for responding to emergency events at private and public institutions.

An Analysis of Variance (ANOVA) was utilized in effort to compare the perceptions of faculty at both private and public universities regarding the relationships between the perceptions of risk and levels of preparedness and results presented in Table 7.

Table 7

Analysis of Variance in Faculty Perceptions of Risk for Emergency Events and Levels of Preparedness at Private and Public Institutions

Source	*df*	*SS*	*MS*	*F*	*P*
Risk	1	0.573	0.573	1.035	0.313
Preparedness	1	0.085	0.085	0.107	0.744

Table 7 presents the results of the between-subjects ANOVA conducted to examine research questions three and six regarding the relationships between the perceptions of faculty at private and public institutions regarding perceptions of risk and levels of preparedness. The results indicated that there was no significant variance between private university faculty and public university faculty in their perceptions of the potential risk for an emergency event to occur on a university campus, $F_{(1)} = 1.035$, $p > .05$. There was also no significant variance between private university faculty and public university faculty in their perceptions of the level of preparedness to respond to the emergency events $F_{(1)} = 0.107$, $p > .05$.

Conclusions

To further clarify the results of examining the research questions, the survey findings are presented in two categories: (a) faculty responses to perceived potential for emergency events and (b) their level of preparedness for emergency events on campus. The following section will examine these categories with the emergency events being detailed in the areas of personal emergency events, property emergency events, and natural emergency events.

Faculty Perceptions of Potential for Emergency Events

The researcher identified the following conclusions regarding the Part One perceived risk research questions:

Faculty Perceptions of Perceived Risk at Private Universities

Four personal emergency events were identified as being perceived as likely to occur on the private university campuses. These included (a) Drug-related (M = 4.23, SD = 1.06), (b) Liquor Law Violation (M = 4.85, SD = 0.93), (c) Medical Emergency (M = 4.77, SD = 1.29), and (d) Robbery (M = 4.05, SD = 1.17) as noted in Table 1. Analysis revealed four property emergency events were identified as being perceived as likely to occur on the private university campuses. These included (a) Burglary (M = 4.05, SD = 1.05), (b) Theft of Property (M = 4.54, SD = 0.94), (c) Vehicle Accident (M = 4.56, SD = 0.85), and (d) Vandalism (M = 4.41, SD = 0.94) as noted in Table 1. And finally, two natural emergency events were identified as being perceived as likely to occur on the private university campuses. These included Extreme Temperatures (M = 4.62, SD = 0.99) and Severe Weather (M = 4.82, SD = 0.89) as noted in Table 1.

Faculty Perceptions of Perceived Risk at Public Universities

Seven personal emergency events were identified as being perceived as likely or very likely to occur on the public university campuses. These included (a) Drug-related (M = 4.86, SD = 1.04), (b) Liquor Law Violation (M = 5.52, SD = 0.79), (c) Medical Emergency (M = 5.23, SD = 0.87), (d) Robbery (M = 4.09, SD = 1.38), (e) Sex offenses (M = 4.52, SD = 1.34), (f) Sexual Harassment (M = 4.35, SD = 1.34), and (g) Suicide (M = 4.13, SD = 1.14) as noted in Table 2. Analysis revealed four property emergency events were identified as being perceived as likely or very likely to occur on the public university campuses. These included (a) Burglary (M = 4.70, SD = 1.11), (b) Theft of Property (M = 4.83, SD = 1.30), (c) Vehicle Accident (M = 5.00, SD = 0.91), and (d) Vandalism (M = 4.78, SD = 1.00) as noted in Table 2. And finally, two natural emergency events were identified as being perceived as likely or very likely to occur on the public university campuses. These included Extreme Temperatures (M = 4.35, SD = 1.11) and Severe Weather (M = 5.17, SD = 0.72) as noted in Table 2.

Comparisons of Faculty Perceptions of Risk at Private and Public Universities

There were no significant differences in the extent to which faculty at private or public universities perceive the risk of a property emergency event to occur on their institution's campus. Of interest however, was the rating of one of the private universities Private university 1 regarding the risk for an aircraft accident to occur on their institution's campus (M = 4.00). The rating was notably different than the other private university Private university 2 (M = 1.54) and the two public universities Public university 1 (M = 2.70) and Public university 2 (M = 1.69). The researcher identified this reportable difference as being of interest in that the only private university, Private

university 1 offering an avionics program and having an airport located immediately next to university property is the university with the (M = 4.00) Likert-type scale rating of risk for an Aircraft Accident to occur on their campus. The researcher compared the ratings to the two public universities and identified the rating (M= 1.69) as indicated by the second public university. The public university, Public university 2 also has an avionics program; however, an airport is not located in immediate proximity to the university campus.

Faculty Responses to Level of Preparedness

The researcher identified the following conclusions regarding the Part Two preparedness research questions:

Faculty Perceptions of Preparedness at Private Universities

A review of the responses specific to personal emergency events revealed eleven personal emergency events identified by participants at the private universities as having a Likert-type scale rating of Unlikely or less regarding their level of preparedness to respond to an emergency event on their campuses. These included (a) Abduction (M = 3.51, SD = 0.93), (b) Aggravated Assault (M = 3.72, SD = 1.00), (c) Armed Violence (M = 3.61, SD = 1.20), (d) Civil Disorder (M = 3.86, SD = 0.99), (e) Cyber Crime (M = 3.53, SD = 1.23), (e) Hate Crimes (M = 3.72, SD = 1.26), (f) Manslaughter (M = 3.14, SD = 1.33), (g) Murder (M = 3.25, SD = 1.23), (h) Pandemic (M = 3.94, SD = 1.35), (i) Suicide (M = 3.97, SD = 1.12), and (j) Terrorism (M = 3.42, SD = 1.40) as noted in Table 4. Analysis indicated five property emergency events were identified by participants at the private universities as having a Likert-type scale rating of Unlikely or less regarding their level of preparedness to respond to an emergency event on their campuses. These included (a) Arson (M = 3.64, SD = 1.10), (b) Hazardous Materials (M = 3.75, SD =

1.00), (c) Explosive Devices (*M* = 3.56, *SD* = 1.23), (d) Nuclear Power (*M* = 2.69, *SD* = 1.43), and (e) Aircraft Accident (*M* = 3.28, *SD* = 1.56) as noted in Table 4. Finally, two natural emergency events were identified by participants at the private universities as having a Likert-type scale rating of Unlikely or less regarding their level of preparedness to respond to an emergency event on their campuses. These included Earthquake (*M* = 2.97, *SD* = 1.18) and Flood/Flash Flood (*M* = 3.67, *SD* = 1.17) as noted in Table 4.

Faculty Perceptions of Preparedness at Public Universities

A review of the responses specific to personal emergency events revealed nine personal emergency events identified by participants at the public universities as having a Likert-type scale rating of Unlikely or less regarding their level of preparedness to respond to an emergency event on their campuses. These included (a) Abduction (*M* = 3.18, *SD* = 1.44), (b) Aggravated Assault (*M* = 3.83, *SD* = 1.11), (c) Armed Violence (*M* = 3.52, *SD* = 1.44), (d) Cyber Crime (*M* = 3.87, *SD* = 1.42), (e) Hate Crimes (*M* = 3.95, *SD* = 1.36), (f) Illegal Weapons (*M* = 3.78, 1.54), (g) Manslaughter (*M* = 3.43, *SD* = 1.53), (g) Murder (*M* = 3.59, *SD* = 1.59), and (h) Terrorism (*M* = 2.91, *SD* = 1.51) as noted in Table 5. Analysis revealed six property emergency events were identified by participants at the public universities as having a Likert-type scale rating of Unlikely or less regarding their level of preparedness to respond to an emergency event on their campuses. These included (a) Arson (*M* = 3.78, *SD* = 1.28), (b) Hazardous Materials (*M* = 3.83, *SD* = 1.40), (c) Explosive Devices (*M* = 3.13, *SD* = 1.69), (d) Nuclear Power (*M* = 1.76, *SD* = 1.38), (e) Aircraft Accident (*M* = 2.96, *SD* = 1.87), and (f) Sustained Utility (*M* = 3.96, *SD* = 1.82) as noted in Table 5. Finally, two natural emergency events were identified by participants at the public universities as having a Likert-type scale rating of

Unlikely or less regarding their level of preparedness to respond to an emergency event on their campuses. These included Earthquake *(M* = 3.23, *SD* = 1.69) and Flood/Flash Flood (*M* = 3.48, *SD* = 1.53) as noted in Table 5.

Comparisons of Faculty Perceptions of Preparedness at Private and Public Universities

There were no significant differences in the extent to which faculty at private or public universities assess their level of preparedness to respond to personal emergency events, property emergency events, or natural emergency events on their campuses.

Implications and Recommendations

A review of scholarly literature specific to the development of a culture of emergency preparedness within institutions of higher education was observed to be lacking. This study provided evidence that supports the development of a culture of preparedness within institutions of higher educations to best fulfill state and federal mandates while also proactively reducing the risk and impact of emergency events on college and university campuses.

This study has expanded the research and literature into the prevailing views of institutions of higher education regarding risk and levels of preparedness to respond to emergency events. Numerous implications and recommendations are offered for consideration as a result of this study.

The results of this study indicated the general perspective by faculty members at private and public universities that emergency events were not likely to occur on campuses of institutions of higher education. This affirmed the prevailing view that institutions of higher education may be immune from hazardous events. Such assessment of apparent immunity from hazardous events assists to carry on the traditional perception

that higher education faculty exist in ivory towers or protective bubbles as previously identified by Fisher et al. (1998).

The participants did observe an increased risk of certain events to occur such as Drug-related events and Illegal Consumption of Alcohol by Minors. These criminal offense types have existed as a cultural dynamic of the experimentation by youth during their college years within higher education since the early 1960's. Similarly, the research indicated an increased likelihood of sexual harassment and sex offenses to occur at public universities.

Such findings support research (Griffin, 2007; Janosik, 2001; Stamatakos, 1989) relevant to the unique culture and community existing in institutions of higher education requiring special attention through the Clery Act and the university doctrine of in loco parentis. It is clear that faculty perspectives indicate some potential for events to occur and their resulting lack of preparedness to respond to the events. This serves as an important indicator that institutions of higher education have not achieved the environment of being immune from hazardous events. On the contrary, institutions are continuing to demonstrate cultural and environmental vulnerability that requires institutional leadership to continue investing in creating safe educational environments as sought through the doctrine of in loco parentis.

The research findings indicated several areas of emergency events that faculty did not assess themselves as being adequately prepared to respond. Such observation indicates a gap in the organizational or institutional goal of maintaining a safe environment. The role of leadership to apply safety-specific transformational leadership as identified by previous research (Mullen & Kelloway, 2009; Dollard et al., 2012)

encourages further research to be conducted specific to the perspectives of university administrators.

University leaders hold authority to assess the perspective of risk assessment and the application of the functions of mitigation and prevention processes within emergency management efforts (Franke, 2003; Slovic, 1987; Slovic & Peters, 2006). It is further recommended that safety-specific transformational leadership be implemented within the administrative level of institutions of higher education with the goal of advancing the cultures of emergency management. Research (Dollard et al., 2012; Michaelis et al., 2009; Nielson et al., 2010) identified the positive impact on the organizational culture when leadership prioritized the safety and well-being of the community.

The Public Safety authorities at institutions of higher education serve with various titles including private security, community service officers, public safety officers and police officers. Schafer et al. (2010) suggested that the public safety departments are responsible to serve as the experts within higher education to fulfill the expectations and requirements associated with the safety and security of the university environment. It is recommended that future research be conducted on the formal advancement and empowerment of Public Safety authorities to fulfill these federal and state mandates.

The Clery Act has been identified as a proactive instrument in the effort to advance safety and security within the institutions of higher education (Janosik, 2001). Additional research should be focused on the role of All-Hazards emergency management in the proactive efforts of advancing the Clery Act mandates as well as the recommended emergency management goals as presented by FEMA. Such research

would serve to further examine the relationship between social trust and university Public Safety officials as identified through the work of Siegrist et al. (2000).

The results of this study indicated numerous emergency events which could be developed into curriculum for continuing education presented to university employees. It is recommended that additional research be conducted regarding curriculum development and outcome measurement specific to advancing the cultures of emergency management.

Public Safety officials in collaboration with university mental health, student development and faculty stakeholders (Crepeau-Hobson et al., 2005) ultimately can provide training to the community that fulfills state and federal mandates while also serving to empower the community members to be prepared. Such training may be readily developed through the use of emergency management tools (Perry & Lindell, 2003) and utilized throughout the university community as authorized by safety-specific transformational leadership (Dollard et al., 2012; Mullen & Kelloway, 2009).

It is recommended that the Risk Communication Model (Thorne et al., 2003) be utilized by university officials to advance continuing education throughout the university community. The model provides opportunity to assess and identify potential hazards unique to the institution, identify the potential audience for training and developing appropriate curriculum.

The Risk Communication Model is supportive of the professional practices within the emergency management community which call for consistent and sustained assessment of potential risks (Lindell & Hwang, 2008). The act of university officials monitoring and assessing safety-specific elements on campuses aids in the advancement of both the safety-specific transformational leadership model (Dollard et al., 2012;

Mullen & Kelloway, 2009) as well as the call for compliance by both the U.S. Department of Education through the Clery Act and F.E.M.A through the N.I.M.S. requirements (Griffin, 2009; Janosik, 2001).

Application of identifying the appropriate audience for each assessed area of training (Crepeau-Hobson et al., 2005; Lindell & Hwang, 2008) is a collaborative effort. The institutional departments such as Public Safety, Mental Health Services, and the Business and Risk Management departments (Schafer et al., 2010) are subject to mandates by the U.S. Department of Education (2005) and are identified as being responsible to advance such collaborative relationships. Janosik and Gregory (2003) identified similar findings in that campus safety officials reported educational campaigns were more effective in advancing crime prevention efforts than only providing statistical data regarding criminal events and hazardous situations.

The U.S. Department of Education (2005) in addition to individual state legislatures are mandating institutions of higher education to comply with legislation and professional best practices specific to emergency management practices (Griffin, 2009; Janosik, 2001). These best practices include annual training, drills and exercises to test the institutional emergency response plans.

The emergency medical community identified similar needs for training professionals within a profile of limited time and availability for a sustained and progressive training program. Wisniewski et al. (2004) identified a blended training curriculum involving a face-to-face instructional format supported by on-going web-based training.

Application of the Risk Communication Model at Institutions of Higher Education through the advancement of hazard assessment, identification of training audiences and, curriculum development, is recommended for the potential advancement of cultures of emergency management. Such proactive efforts provide opportunity to conduct measureable outcomes of crime prevention and safety awareness (Janosik & Gregory, 2009).

The results of this current research indicated the general perception by faculty at both private and public universities that they were not prepared to respond to potential emergency situations on their institutional campuses. Sustained continuing education in safety-specific topic areas would advance institutional efforts of federal and state compliance. Continuing education may also serve to offer opportunity for learners to increase self-efficacy in understanding the potential risks unique to their institution, the mitigation and prevention efforts underway, the proper means of responding to specific events, and opportunity to demonstrate proficiency in response protocols.

It is recommended that the leadership at institutions of higher education adapt the organizational change strategies as identified through the research of Mullen and Kelloway (2009) and Nielson et al (2010):

1. Provide visible and essential support and involvement.
2. Provide commitment and consistency.
3. Monitor and measure for outcomes of organizational change efforts (Mullen & Kelloway; Nielsen et al.).

It is further recommended that leadership at institutions of higher education further the best practices identified within the emergency management profession and documented through the research of Perry and Lindell (2003):

1. Conduct preparedness planning through hazard assessment and vulnerability analysis.
2. Collaborate with institutional and community stakeholder groups.
3. Complete comprehensive and "All-Hazards" focused planning.
4. Conduct annual training, drills and exercises in addition to after-action critiques.
5. Evaluate personnel development, response capabilities, stakeholder coordination and interoperable communications.
6. Maintain a sustained and updated plan on an annual basis or immediately upon changes in conditions or resources.
7. Proactively advance the culture of emergency preparedness despite apprehension and reluctance by authorities responsible for the financial resources and public relations. (Perry & Lindell).

The prevailing view that institutions of higher education remain immune from hazardous events and therefore exist in the ivory tower or in a protective bubble (Fisher et al., 1998) is in need of a paradigm shift. The general public has identified the modern world at a higher level of risk for emergency events to occur (Slovic, 1987). It is time for institutions of higher education to apply the best practices learned through emergency management and advance the development of cultures of emergency preparedness on campus.

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Appendix A

Email Communications to Participants

First Email Administration (4-1-12)

Dear Departmental Chair member,

My name is Craig Bishop and I serve as the Director of Public Safety and Associate Professor within the Criminal Justice Program at Olivet Nazarene University. I am conducting doctoral research on the **perceptions of university faculty regarding risks of emergency events and the perceptions of preparedness levels to respond to emergency events on your residential campus.** I am supported by your university through IRB approval and survey instrument distribution.

I am inviting you to participate in this research opportunity. The following link is provided to direct you to the survey instrument which was field tested and identified to take an average seven minutes to complete.

http://surveys.olivet.edu/snapwebhost/surveylogin.asp?k=133313977053

In recognition of your time, two separate **$25.00 Best Buy gift cards** will be presented to eligible survey participants after the data collection period through a random drawing from the participants that select to be eligible for the gift cards.

Please take a few moments to complete the survey. Field testing of the survey instrument identified completion time to be approximately seven minutes. Your contribution to this research will be sincerely appreciated and serve to advance research into improving safety and security protocols and practices on your campus.

Respectfully,

Craig Bishop

Second Email Administration (4-15-12)

Dear Departmental Chair member,

My name is Craig Bishop and I serve as the Director of Public Safety and Associate Professor within the Criminal Justice Program at Olivet Nazarene University. I am conducting doctoral research on the **perceptions of university faculty regarding risks of emergency events and the perceptions of preparedness levels to respond to emergency events on your residential campus.** I am supported by your university through IRB approval and survey instrument distribution.

This communication represents the second request for your participation in this research opportunity. The following link is provided to direct you to the survey instrument which was field tested and identified to take an average seven minutes to complete.

http://surveys.olivet.edu/snapwebhost/surveylogin.asp?k=133313977053

In recognition of your time, two separate **$25.00 restaurant gift cards** will be presented to survey participants after the data collection period through a random drawing from the participants that select to be eligible for the gift cards.

Please take a few moments to complete the survey. Your contribution to this research will be sincerely appreciated and serve to advance research into improving safety and security protocols and practices on your campus.

If you have already completed this research survey opportunity, please do not repeat the process. Thank you very much for your participation.

Respectfully,

Craig Bishop

Third Email Administration (4-30-12)

Dear Departmental Chair member,

My name is Craig Bishop and I serve as the Director of Public Safety and Associate Professor within the Criminal Justice Program at Olivet Nazarene University. I am conducting doctoral research on the **perceptions of university faculty regarding risks of emergency events and the perceptions of preparedness levels to respond to emergency events on your residential campus.** I am supported by your university through IRB approval and survey instrument distribution.

This communication represents the third request for your participation in this research opportunity. The following link is provided to direct you to the survey instrument which was field tested and identified to take an average seven minutes to complete.

http://surveys.olivet.edu/snapwebhost/surveylogin.asp?k=133313977053

In recognition of your time, two separate **$25.00 restaurant gift cards** will be presented to survey participants after the data collection period through a random drawing from the participants that select to be eligible for the gift cards.

Please take a few moments to complete the survey. Your contribution to this research will be sincerely appreciated and serve to advance research into improving safety and security protocols and practices on your campus.

If you have already completed this research survey opportunity, please do not repeat the process. Thank you very much for your participation.

Respectfully,

Craig Bishop