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# Experiences of Hurricane-related Events Among Campus Leadership of Southeastern U.S. Universities

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# Walden University

College of Health Sciences and Public Policy

This is to certify that the doctoral dissertation by

Clarissa E. Henry

has been found to be complete and satisfactory in all respects, and that any and all revisions required by the review committee have been made.

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> > Walden University 2023

# Abstract

Experiences of Hurricane-related Events Among Campus Leadership of Southeastern

U.S. Universities

by

Clarissa E. Henry

MHSA, Strayer University 2010 BA, Livingstone College 1994

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Health Services-Community Health

Walden University

November 2023

#### Abstract

Over the last 10 years, institutes of higher learning (IHLs) in the southeastern United States have endured natural disasters that have caused flooding, water, and wind damage and resulted in student evacuations, class disruptions, and building damage. IHLs are further challenged with resuming campus operations despite the emotional impact resulting after a natural disaster occurs. There is limited research relative to the experiences of campus leadership who share the responsibility of keeping students, visitors, and university artifacts safe during and after a hurricane-related event. This research study served as a qualitative phenomenological assessment of campus leadership experiences during a post-hurricane-related event at hurricane vulnerable universities. Data were collected through semistructured interviews with 10 members of university campus leadership who had been designated as campus first responders. Colaizzi's data analysis method was used to analyze the data provided by participants regarding experiences with recent Hurricanes Florence and Dorian. Analysis indicated that participants believe there is a strong support network among leadership and campus first responders, and relationships between departments and community organizations are continuously being improved. Further while challenges exist, universities are continuously working on improving their emergency response structure. The results of this study have potential implications for positive social change that include gathering interventions and techniques used for the successful execution of emergency management plans to further assist neighboring communities.

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# Dedication

This research journey is dedicated to the hard-working educators and staff working in the role of emergency management first responders who protect the students, visitors and artifacts during natural disasters, response, and recovery efforts. Your hard work is acknowledged and appreciated.

# Acknowledgments

This is dedicated to my family, friends, and most importantly my dissertation committee for offering guidance, support, and phone calls to make sure I was still pushing forward. To my brother and sister-in-love, Mr. and Mrs. Willie L. Henry, Jr., thank you for the support and prayers as I embraced this journey as they were felt and appreciated. To my cousins C. Turner and D. McClure, thank you for being some of my biggest family cheerleaders. To my dear friends, MD, LF, LB, and SH thank you for giving me major kudos and encouraging people to recognize my accomplishments. To the numerous doctoral scholars who became cheerleaders and role models, thank you for sharing your wisdom and "understanding the assignment" during this phase of my life. Last but not least, thanks so much to my dissertation committee and chairperson, Dr. Nieves for being excited about my journey and keeping me motivated no matter what obstacles fell in my path. At times, you were more excited than I appeared to be as you saw the end from the beginning. Sometimes, it felt like an uphill battle with intermittent health challenges and COVID-19 roadblocks, however, your words of encouragement would always get me back on track. Your wisdom and knowledge are matchless and I am blessed to have you as an integral piece of this process.

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Chapter 1: Introduction to the Study

# Introduction

The effects natural disasters have on local communities have been studied for many years. Colleges and universities, institutions of higher learning (IHLs), function as smaller communities within several cities and states (Apsan, 2013; Federal Emergency Management Agency [FEMA], 2003; Fillmore et al. 2011; Lowe & Rhodes, 2013). Campus leadership and educators are responsible for ensuring that the people who live, work, and visit the campus (e.g., visitors and students) are safe and accounted for whenever classes are in session and people are occupying the campus (FEMA, 2014; Kapucu & Khosa, 2013). This leadership group is also responsible for guiding, leading, and directing others if natural disasters interrupt campus operations and increase health and safety concerns on campus (Kapucu & Khosa, 2013). Natural disasters include the following weather conditions: flooding, storm surge, strong winds, heavy rain, and possible tornado activity (Department of Homeland Security, 2018; National Oceanic and Atmospheric Administration [NOAA], 2023). For this study, the term hurricane-related *events* is used to describe the types of weather conditions associated with hurricane activity.

Hurricane Katrina was a Category 5 storm in September 2005 that resulted in winds in excess of 178 miles per hour (Beggan, 2010; Coco, 2017; FEMA, 2003; Joseph, 2007; National Center for Campus Public Safety [NCCPS], 2016). This massive hurricane was the result of numerous universities suspending campus operations and closing their campuses for the remainder of the fall semester. Many of the students were evacuated from the local area, which also caused a significant decrease in retention rates during the spring semester. The extensive damage and financial losses caused by Hurricane Katrina not only changed the way that communities think, plan, and act but also shined the light on the hurricane's impact and its effect on university and college communities across the United States and abroad (Coco, 2017; Eisenman et al. 2007; NCCPS, 2016).

A North Carolina university within the University of North Carolina (UNC) system is not located on the North Carolina coast; however, the campus has experienced significant hurricane activity and damages over the last nine years. Examples of hurricanes include Hurricanes Irene in 2011, Matthew in 2016, and Dorian in 2019, which made landfall and caused significant damage, class interruptions, and financial losses (Brown, 2019; Owens, 2016; UNC, 2021). After Hurricane Irene made landfall, the campus administration was responsible for the relocation of 1,647 students, including students who lived in campus dormitories and off-campus housing (*Campus Safety*) Magazine, 2011; UNC, 2021). After the campus emergency management team made the decision to evacuate the campus, a large majority of the students were instructed to return to their family homes. At least 150 university students were displaced with nowhere to go and could not return home for various reasons (Campus Safety Magazine, 2011; UNC, 2021). A total of six buildings were damaged and classes were dismissed for the remainder of the semester. This chain of events significantly impacted student enrollment for the summer session and the upcoming academic year, affected higher education educators and staff salaries and jobs, led to commencement exercises being canceled, and created an increase in financial expenses in restoration and recovery fees for the university (Owens, 2016; UNC, 2021).

While the college campus experienced significant damages and suspended classes due to natural disasters in 2011 and 2016, university emergency management plans were not reportedly updated to reflect hurricane-related events (FEMA, 2003; McCrory, 2015; UNC, 2019). While it is important to include information regarding fire safety in college emergency preparedness plans, it is equally important for a campus to be prepared for hurricane-related events, especially after campus life had been affected at least three times in the preceding nine years (Brown, 2019; Owens, 2016; UNC, 2021).

In the following chapter, I provide an overview of the following: background of the study, problem statement, purpose of the study, research questions, framework, nature of the study, and definitions used regarding hurricane-related events. I also discuss the assumptions, scope and delimitations, and limitations of the study. This chapter also includes an overview of the significance of this research study.

#### Background

To keep students, faculty, staff, and visitors safe in college and university facilities and buildings is the collective responsibility of campus leadership, administration, health services, and safety personnel to execute and deliver a campus university emergency management plan relative to natural disasters (FEMA, 2014; International Economic Development Council [IEDC], 2018). IHLs are a separate community or subpopulation set apart from adjoining neighborhoods. Colleges and universities must respond to hurricane-related events in a timely manner and provide leadership and campus first responders with the tools to maintain the safety of the students, educators, staff, and visitors.

IHLs have been negatively affected by natural disasters, including hurricane activity, over the last decade. The aftermath of Hurricane Katrina in August 2005 changed the way that IHLs view and prepare for hurricane-related events (Coco, 2017; Joseph, 2007; NCCPS, 2016). In 2005, the hurricane's high winds, storm surge, and flooding caused over one billion dollars in damages to 15 colleges and universities in the path of the storm. In addition, more than 75,000 students were affected (Coco, 2017).

In 2005, Hurricane Katrina affected several southern states and caused significant damage and displacement of thousands of students in IHLs within the geographical area (Coco, 2017; Eisenman, 2007). Since that time, there has been an increasing amount of literature relative to natural disasters affecting students who are enrolled in colleges and universities in the United States and the Caribbean (NCCPS, 2016). Many of the affected states experience a significant number of tropical storms and annual hurricane activity, including Florida, Texas, and Louisiana and the territory of the U.S. Virgin Islands (National Weather Service, 2019). While the research of colleges and universities relative to hurricane-related events has increased over the last few years, there continues to be limited research available related to the experiences of off-campus students, resident assistants, and international students (Fillmore et al. 2011; Rohli et al. 2018).

This research study will provide college and university leadership with a footprint regarding successful interventions and will create opportunities for new and effective interventions in improving university response and recovery stages. This research may assist IHLs in identifying and addressing areas of improvement that may increase the vulnerability of the campus during a hurricane-related event. The findings of this research study should increase the awareness and support from college administrators and encourage the development of additional resources and training to designated educators and staff to improve the timeliness of campus restoration. The research findings may also provide educators and staff with tools needed for improved self-care to appropriately support and influence college students and the learning experience once classes have resumed after a hurricane-related event. Addressing the emotional needs of campus first responders and designated staff has been identified as an unmet need that should be further researched and addressed (Bell et al. 2016).

As it relates to campus emergency preparedness, hurricane-related events, and the experiences of designated leadership on colleges and university campuses, a need has been determined for future studies including collaborations with local and state community and public health organizations. Collaboration is recommended to improve communication and relationships with communities and off-campus students (Tanner & Doberstein, 2015; UNCC, 2016). There has also been an identified need for students in leadership roles to assume more responsibility for their role in disaster preparedness and increased responsibilities of campus administration to provide ongoing education and awareness opportunities throughout the academic year (Tanner & Doberstein, 2015; UNCC, 2016). Other commonalities included the need for colleges and universities to have a more comprehensive emergency response plan including disaster preparedness, evacuation procedures, and recovery methods. Additional recommendations for

improving disaster preparedness supplies and conducting mock drills prior to disastrous events have been identified interventions relative to disaster preparedness, response, and recovery on college campuses (Apsan, 2013; Fillmore et al. 2011). Additionally, addressing the mental wellness of campus first responders and volunteers during adverse events has been identified as an unmet need for further research to be addressed (Bell et al. 2016).

#### **Problem Statement**

Hurricane-related events (e.g., floods, tornados, wind damage) have caused damage to campus buildings, forced class dismissals, caused staff and students to be moved to safer areas, and interfered with the educational experience. These natural hazards have also increased costs related to insurance premiums and restoration fees and have increased mental and physical health concerns among those affected (Cheung et al. 2014; Jaradot et al. 2015). During these types of events, campus staff, educators, and resident staff play the role of first responders, mentors, and parents to the students. Key educators and staff members are designated as campus first responders and have devoted their time and support to students, visitors, and other campus personnel during hurricanerelated events (Watson et al. 2011). There is limited research relative to the support of campus leadership and campus first responders and their responsibilities to all students, including international students and off-campus students.

Many in-state students have the support and guidance of their families and loved ones and have relied on them to ensure their safety (Watson et al. 2011). Campus first responders face challenges and stressors and assist with meeting students' basic needs. Additional challenges are evident for designated campus leadership as they also provide guidance and support to international students and students in off-campus housing (Watson et al. 2011).

Disaster preparedness has become an important factor in IHL communities since Hurricane Katrina and many other large-scale natural disasters (Eisenman et al. 2007). The local, state, and federal government has taken an increasing interest in college campuses being disaster resilient (FEMA, 2003; North Carolina Emergency Management [NCEM], 2012). The vulnerabilities of a college campus can be determined by the type of natural disasters they deal with on a regular basis. In North Carolina, many of the natural disasters that affect college campuses and require preparation and response are tornados, floods, hurricanes, and coastal storms, among others (NCEM, 2010; UNC, 2021). The effects of hurricane-vulnerable campuses vary from loss of power, evacuations, environmental concerns, and/or hosting as a disaster center, just to name a few (NCEM, 2010; UNC, 2021).

The roles, responsibilities, and decision making of faculty and staff as campus first responders should not be completed on the eve of a storm, hurricane, or tornado watch. Educators and staff should be educated and fully aware of their responsibilities prior to a natural disaster making landfall in their local area (Cheung et al. 2014). Campus health centers play a major role in the physical and mental health of students in day-to-day business as usual and inherit an increased responsibility as a member of the first responders' team in the event of a natural disaster. There has been an increase in research studies regarding disaster preparedness and emergency management on college campuses over the last 15 years; however, the perceived risks, perceptions, and attitudes of the campus health center staff are understudied, including in states such as North Carolina (McCrory, 2015; UNC, 2021).

While it is important to include information regarding fire safety in the college emergency preparedness plan, it is just as important for campuses to be prepared for hurricane-related events. It is also important to have a solid emergency operations plan (EOP) for first responders to utilize should campus life be affected by natural disasters. Including natural disasters in university EOPs is increasingly important as universities have experienced numerous natural disasters in the last decade (Owens, 2016; UNC, 2021).

Campus leadership assumes a great deal of responsibility in keeping the campus, students, and other faculty/staff safe, while ensuring that they deal with the stressors involving their families. Campus leadership also has the responsibility of being a strong support system for students while attempting to minimize the psychological impact of the hurricane-related event while being away from loved ones and the family home (McCabe et al. 2014). There are also concerns whether college and university staff are fully prepared through updated and current emergency management plans and equipped with the necessary supplies and support for a future hurricane-related event. There is limited research available regarding the perceptions of campus first responders and campus leadership and being appropriately prepared for a hurricane-related event on the campuses of colleges and universities. Higher education educators and staff are considered the first responders for their campuses, and it is important to acknowledge and

identify lessons learned from previous disastrous events (i.e., natural disasters) to ensure that appropriate steps are being taken to be prepared for the next natural disaster (UNC, 2021).

A review of previous literature indicates there is limited research regarding the experiences of campus first responders during and after a hurricane-related event. Further research is needed related regarding the perceptions of higher education educators and staff and the belief that IHLs are appropriately prepared for a hurricane-related event. Researchers have previously studied the student experience regarding their perceptions of what to do in the event of a natural and/or human-made disaster. Previous research has also been reviewed in relation to the perceptions of university staff including school counselors and residence life staff in dealing with mass crises (Bell et al. 2016; Floto, 2014; Rholi et al. 2018; Werner, 2014).

## **Purpose of the Study**

The purpose of this descriptive qualitative phenomenological study was to explore the experiences of designated campus leadership (e.g., staff, educators, residence staff, volunteers, etc.) identified as campus first responders during hurricane response and recovery activities at a college or university in the southeastern United States. I also sought to gain a better understanding of how designated campus leadership returned to the university and continued to successfully fulfill their duties in the wake of a hurricanerelated event. In addition, I sought to also better understand how campus first responders addressed the emotions and feelings of their subordinates and themselves during recovery activities on campus. Disaster preparedness has become an increasing concern in communities since the 9/11 terrorist attacks, Hurricane Katrina, and other large-scale disastrous events (Bruxvoort, 2012). Community citizens question if their families are protected during and after a natural disaster because some families have experienced natural disasters in previous years (Eisenman et al. 2007). Local colleges and universities also serve as subcommunities and assume responsibility for maintaining the safety and accountability of students, educators, and staff (FEMA, 2017). Gauging whether a current university emergency management system is valid and appropriate for hurricane-related conditions that affect safety, operations, and interruptions to student learning experiences is important (UNC, 2021).

#### **Research Questions**

The following research questions guided the study:

RQ1: What are the experiences of campus leaders who have been involved in hurricane response and recovery efforts that have interrupted campus life and operations?

RQ2: What is the emotional impact of designated campus leadership members who have responded to a hurricane-related event as a part of emergency response and recovery efforts?

The purpose of this descriptive qualitative phenomenological study was to explore the experiences of designated campus leadership (e.g., staff, educators, resident assistants, resident directors, and volunteers) who are identified as campus first responders during hurricane-related events at an IHL in the southeastern United States. I also sought to gain a better understanding of how designated campus leadership return to the university and

continue to successfully fulfill their duties in the wake of a hurricane-related event. For this study, a hurricane-related event is defined as a tornado, flooding, wind, and/or water damage that leads to suspending classes, disrupted campus life, and/or forced evacuations from college campuses.

#### **Theoretical Foundation**

A qualitative descriptive phenomenological approach was used to explore the experiences of designated university leadership (e.g., campus health center, campus security, resident assistants, administration, etc.) and their support to all students, including off-campus and international students who have encountered similar events (Creswell, 2014; Patton, 2015). I expected this group would provide a clear understanding of their behavioral responses as they assist students, educators, staff, and visitors during hurricane-related events on hurricane-vulnerable campuses and applied to the theory of planned behavior (TPB). TPB was created by Icek Ajzen (1991) to explain and determine behavior by reviewing different degrees of human behavior. Ajzen assumed that people react to adverse events such as natural disasters and human behavior can be further influenced by family, fellow colleagues, managers, etc. This theory was used to determine if a person's behavior responses are influenced by three factors: attitude, subjective norm, and perceived behavior control. It is anticipated that a person's attitudes, whether favorable or unfavorable will affect their performance during hurricane response and recovery activities on college campuses. Additionally, local and state government agencies mandate that colleges and universities use the mitigation, preparedness, response, and recovery phases of the disaster phase model to be better

prepared during natural disasters and resuming campus operations (Ajzen, 2002; FEMA, 2013, 2017). I also explored the experiences of the participant group regarding vulnerabilities in maintaining health, safety, and organizational structure during the response and recovery activities of recent hurricane-related events affecting campus life and classroom operations.

# Nature of the Study

The participants of this study (e.g., designated faculty and staff, security, facilities and emergency management staff, resident assistants, volunteers, resident directors, etc.) function in the role of witnesses, campus first responders, and victims and shared their experiences regarding a recent hurricane-related event that affected campus life and operations. A combination of documentation reviews and individual interviews were conducted to gather data (see Ravitch & Carl, 2016; Rubin & Rubin, 2012). Semistructured interviews were used to gather the experiences of the participants, providing them an opportunity to give their accounts of a hurricane-related event that affected campus life and operations.

Many of the participants were chosen through snowball sampling after an initial meeting with university emergency managers. The participants were identified as designated faculty, staff, resident directors, and/or resident assistants who serve as campus first responders, ensuring the health and safety of on- and off-campus students, campus visitors, and non-emergency faculty and staff. The semistructured interviews gave the participants an opportunity to share their encounters during and after hurricane

activity and gauged their level of trust in the university's current policies and emergency response plan.

In semistructured individual interviews, a smaller number of open-ended questions were used to gather the true opinions and feelings of the participants (see Ravitch & Carl, 2016). I planned to use three-five questions for data collection, allowing opportunities for probing and follow-up questions. Several follow-up questions emerged during the individual interviews to gather more specific information relative to the participant experience and to further answer the research questions. I reviewed the following supporting documentation: FEMA disaster resistant university manual, newspaper articles, the IHL's emergency management plans, and other resources IHLs use for disaster protocol (FEMA, 2003). Existing data reports were not provided by the IHL relative to a hurricane-related event.

# Definitions

The World Health Organization (WHO, 2019) defined a natural disaster as an act of nature with great magnitude that will interrupt the daily patterns of life, which will catapult people into helplessness and suffering, leading to deficiencies in food, clothing, shelter, and medical care. Natural disasters are also known as natural hazards, meteorological hazards, or adverse events, which include the following weather conditions: hurricanes, tornados, landslides, flooding, tropical cyclones, storm surges, and high winds (NCCPS, 2016; UNC, 2021; WHO, 2019). A hurricane is identified by wind speeds in excess of 74 miles per hour; wind speeds 73 miles per hour or less are identified as tropical storms (NCCPS, 2016; UNC, 2021). Hurricanes also range from Category 1 (minimal) through Category 5 (catastrophic), with Category 1 winds ranging from 74–95 miles per hour and Category 5 winds being 157 miles per hour or higher according to the Saffir-Simpson Hurricane Wind Scale. Hurricane season in the Atlantic region runs from June 1 to November 30 each year, and the Atlantic region covers the Atlantic Ocean, the Caribbean Sea, and the Gulf of Mexico. Peak hurricane season usually occurs around September of each year (NHC, 2019; UNC, 2021)

Over the last decade, IHLs have endured an increase in hurricane and tropical storm activity that has resulted in storm surges, water, flooding, and wind damage to college campuses within the southeastern United States (Apsan, 2013; FEMA, 2003; Fillmore et al. 2011; Lowe & Rhodes, 2013). These hurricane-related events result in campus evacuations, injuries, student relocations, and damage to buildings (Fillmore et al. 2011). For this research study, I refer to natural disasters as hurricane-related events, focusing on hurricanes that resulted in flooding, wind and water damage, and storm surges.

Southern states such as Florida, Louisiana, and Texas have more hurricane-related events that require ongoing preparation throughout the year. The east coast has also had its share of hurricane-related events over the last 10 years, increasing preparedness and awareness efforts within communities (FEMA, 2003). For example, Hurricane Sandy made landfall in 2013 causing major damages and flooding in the New York and New Jersey areas, which affected thousands of students and disrupted operations for numerous college campuses (Aspan, 2013; *USA Today*, 2013).

According to the National Health Center, North Carolina and South Carolina have been identified among the top six states that have been affected by hurricane landfall totaling five hurricanes in the last 8 years (NOAA, 2019). In 2016, Hurricane Matthew made landfall in the Cape Fear, North Carolina, area, causing extensive damage to communities that are still affected by hurricane-related damages. Hurricane Florence made landfall in September 2018 and caused extensive flooding and displacement in several communities in the affected areas (NHC, 2019; UNC, 2021; *Wall Street Journal*, 2018).

The following are definitions of the terms used within this study:

*Campus first responders*: A select group designated by campus president or designee assigned to be the front line in preparing for and executing an emergency management plan during the response and recovery phases of hurricane-related activity that affects campus operations (*Campus Safety Magazine*, 2016).

*Campus leadership*: Designated faculty and/or staff who have been given specific roles and responsibilities in the decision making processes that affect the various functions of college campus operations. Campus leadership can consist of designated persons from various departments such as higher education administrators, health services, finance, security, and residence life (UNC, 2021).

*Disaster preparedness*: Also known as *hazard mitigation*, includes the detailed instructions, policies, and procedures in which an IHL is prepared to appropriately address a hurricane-related event (FEMA, 2003; UNC, 2021).

*Emergency response plans*: A plan that has been created and tested by an institution to use in the event of a disaster or emergency (FEMA, 2003; UNC, 2021).

*Federal Emergency Management Agency (FEMA)*: This federal agency is responsible for assisting local government, communities, and IHLs during the recovery phase of a hurricane-related event. Local communities and governmental agencies only receive assistance as approved and directed by the president of the United States (FEMA, 2017).

*Hazard mitigation*: The degree to which an institution is prepared to effectively handle a natural disaster, including detailed steps and procedural documents (UNC, 2021).

*Hurricane*: A violent storm that can be unpredictable regarding time, place, size, and force. Hurricanes consist of strong winds, storm surges, flooding, tornados, and heavy rain. Hurricane season is from June to November each year. The most vulnerable areas susceptible to hurricane-related activity consist of the Gulf Coast and Atlantic states in the United States (FEMA, 2003, 2017; UNC, 2021).

*Hurricane-related event*: A natural disaster consisting of any combination of the following: hurricanes, flooding, strong winds, tornados, or tropical storms. Hurricane related-events have caused damage to campus buildings, forced campus interruptions, led to the relocation of staff and students to safer areas, and caused mental and physical health concerns of the persons affected (Cheung et al. 2014; Jaradot et al. 2015).

*Hurricane warning*: Are issued in situations that consist of winds in excess of 74 miles per hour or higher (NOAA, 2018; UNC, 2021).

*Institutes of Higher Learning (IHLs)*: A postsecondary institution that consists of public or private colleges and universities and has received accreditation by a national association or agency (U.S. Department of Education, 2013).

*Natural disaster*: Also known as a *natural hazard*, identified as severe weather patterns that can cause significant damage and threats to health and safety, property, and buildings. Natural disasters include any combination of the following: floods, tornados, hurricanes, and winter or tropical storms. Natural disasters, while occurring seasonally, can occur without prior warning and can lead to significant injuries, loss of life, campus closings, and financial loss (FEMA, 2003; UNC, 2021).

# Assumptions

A key assumption in this study was that educators, staff, and student-employees have been trained in response and recovery duties relative to hurricane-related events. Participation in this research study was voluntary and anonymous, and the assumption was that participants would provide honest feedback in this study. Additional assumptions included that participants were from an IHL in the southeastern United States and had experienced a hurricane-related event within the last 5 years. Another assumption was that campus leadership were prepared and trained in emergency management and that the IHL's disaster response plan was appropriate to their educational institution. Continuous assumptions include that the designated first responders would be trained to participate in the response and recovery activities of hurricane-related events.

## **Scope and Delimitations**

The scope of this study focused on the perceptions and experiences of campus first responders during the response and recovery activities of hurricane-related events. This professional group consists of staff and faculty members, administration personnel, and resident assistants who operate in the role of campus emergency management responders within IHLs. In addition, this group, also referred to as *campus leadership*, provided an overview of their professional insight regarding the strengths, weaknesses, and areas of improvement regarding the campus emergency response processes relative to hurricane-related events. I also expected that this select group would provide a better understanding of the behavioral responses of educators and staff as they assist students, non-emergency faculty/staff, and visitors during hurricane activity on hurricanevulnerable campuses as it applies to TPB (Ajzen, 1991). Equally important was reviewing the findings relative to the behaviors of campus leadership and the influence of similar events, fellow colleagues, family members, and others (see Paek et al. 2010).

A major delimitation of this study focused on emergency preparedness relative to natural disasters such as hurricane-related events and the encounters of campus leadership (e.g., faculty, staff, administration, counselors, resident assistants, etc.). Among the various types of crisis events that affect IHLs, hurricane-related events can cause structural damage and lead to longer timeframes for recovery, returning to the campus, and resuming campus operations and class schedules. In some cases, IHL disaster response plans will not include specific details and instructions for hurricanerelated events due to not being located close to a coastline. Emergency management plans would include directives for fires, active shooter situations, and/or campus violence (Sattler et al. 2014). Another delimitation of this study included designated campus leadership and/or administration that experienced at least one hurricane-related event while employed at a hurricane-vulnerable university campus. A limited number of campus administrators who experienced a hurricane-related event as campus first responders were included as participants in this study.

# Limitations

College and university students were not considered for this study except those who were employed by the university as resident and laboratory assistants. This select group was assigned to aid and guide on- and off-campus students and visitors regarding campus evacuations and closings, class disruptions, and hurricane recovery activities. The research study was focused primarily on the experiences of designated persons assigned to assist with the mitigation, preparedness, response, and recovery activities of a hurricane-related event. The participants in this study self-reported, which could potentially affect the results of this study. The results could also be affected based on the emotional experiences that impacted the participants in this study.

# Significance

There is limited research regarding the experiences of campus first responders during response and/or recovery activities of a hurricane-related event. There is also limited research relative to the perceptions of educators and staff and beliefs regarding IHLs' preparation for hurricane-related events. Researchers have studied students' perceptions of what to do in the event of a natural and/or human-made disaster. Previous research has also been identified relative to the perceptions of university staff including school counselors and residence life staff in dealing with mass crises (Bell et al. 2016; Floto, 2014; Werner, 2014).

This research study will provide college and university leadership with a footprint regarding interventions that are working and opportunities for new and effective interventions in improving university response and recovery stages. This research will assist IHLs in identifying and addressing areas of improvement that may increase the vulnerability of the campus during a hurricane-related event. Additionally, this information may increase the awareness and support from college administrators and encourage additional resources and training offered to designated faculty and staff, which may improve the timeliness of campus restoration.

Social change can be positively affected by the findings of this study, as participants may become more confident and knowledgeable in knowing what to do and what needs to be in place in the event of a disastrous event. Making college campuses and neighboring communities feel better prepared through education and training efforts relative to disaster recovery and emergency preparedness could potentially improve emergency response times (Cheung et al. 2014). Increasing education efforts such as disaster drills and semiannual disaster preparedness reminders could improve safety measures and a sense of security on campus and in the community. Educators, students, and communities that feel empowered and knowledgeable in disaster recovery feel they can keep their families safe and free from any danger (Cheung et al. 2014). Community collaborations include faith-based and nonprofit organizations, other local colleges and universities, local medical facilities, and surrounding communities.

The research findings may provide educators and staff with the tools and support needed for self-care and well-being so they will be able to appropriately support and influence college students and their learning experiences. There is limited research relative mental wellness of campus first responders and resources available on campus during recovery activities. In addition, the identified significance of addressing the emotional impact of emergency operations task force members is an unmet need that should be further studied (Bell et al. 2016).

## **Summary and Conclusions**

Included in this chapter was an overview of the context in which this descriptive phenomenological study will be presented. This chapter provided an overview of the issues regarding campus emergency response, crisis management leadership, emotional impact, and the responsibility of ensuring campus safety during and after a hurricanerelated event. Chapter 1 also provided the background of the study, the purpose of the study, the need for the study, its significance, research questions, and a brief overview of the theoretical framework used for this study. Also included in this chapter was a summary regarding the relevance of the emotional impact of campus leadership and its influence in affecting response and recovery activities and continued operations on university campuses. In Chapter 2, I review the literature and provide an overview of prior research associated with campus emergency preparedness, hurricane-related events, emergency response, and the experience of campus emergency task force members within IHL campuses.

## Chapter 2: Literature Review

# Introduction

Natural disasters, such as floods, tornados, hurricanes, tropical storms, wind damage, etc., have interrupted the operations of IHLs and affected the quality of life of students and staff over the last 15 years (Coco, 2017; FEMA, 2003; NCCPS, 2016). Natural disasters, from Hurricanes Katrina and Rita in 2005 to Hurricane Dorian in 2019, have increased the need for disaster preparedness planning as mandated by FEMA (2003), along with state, local, and public health agencies (Beggan, 2010; Coco, 2017). Disaster preparedness planning is still considered a lower priority to international and off-campus students, resulting in increased concerns for safety and delays in responding to emergency preparedness efforts and plans (FEMA, 2003; UNC, 2021). Some universities have incorporated international student resource centers on campus to assist with any international student sudents during natural disasters and inclement weather conditions (Liberty University, 2023)

Previous researchers have reported that students who reside within the IHL's state are usually sent home with their families, while international students have additional challenges and stressors to face in the wake of a hurricane-related event. Off-campus students, on the other hand, may need additional support as many may not have the resources to evacuate from the local area (Day, 2015; Tanner & Doberstein, 2015; Watson et al. 2011). In many cases, in-state residents have the support and guidance of families and loved ones and can rely on them to provide oversight to ensure their safety (Watson et al. 2011). The results of inclement weather conditions significantly affect the day-to-day structure of international and off-campus students as they depend on the campus operations center for many of their basic needs (Watson et al. 2011). Families have multiple concerns, including increased stress and anxiety, when universities provide limited support and guidance to their loved ones (i.e., students) during a disastrous event due to being thousands of miles away from them.

In Chapter 2, I review previous literature and research associated with campus emergency preparedness, emergency response, and recovery as it relates to IHLs. I also provide an overview of the following: literature search strategy, theoretical foundation, as well as key variables and concepts. I will also review how the IHLs' operate and provide support during mitigation, preparedness, response, and recovery activities relative to hurricane-related events.

## Literature Search Strategy

There were several databases and search engines used to support this study. The Walden University Library was a primary source for collecting and reviewing peerreviewed articles and resources. Governmental websites were used, such as FEMA, National Center for Biotechnology Information (NCBI), NOAA, Department of Homeland Security, WHO, and the U.S. Department of Education, to gather and review information as it relates to regulations, standards, historical information, and training materials available for IHLs. In addition, databases such as EBSCOhost, ProQuest, PubMed, and Google Scholar were used to gather and review existing research.
A combination of peer-reviewed journal articles, newspaper articles, and books were also reviewed for this research study. In gathering information for the study, the following search terms were used: *hurricanes and college leadership, emergency preparedness and universities, regulations for natural disasters and colleges, university hurricane task force, emergency management in higher education, and university disaster response,* and *emotional impact after natural disasters*.

The following higher education websites were used as well: Tulane University, Lincoln University, State University of New York system (SUNY), Georgia Southern University, Savannah State University, Paine University, Grambling University, and the University of North Carolina system; these websites were utilized to review current disaster plans and resources for campus leadership and students and to verify evidence of user-friendly materials readily available for distribution to students, visitors, and the community. Additional higher education websites and local, state, and federal web sources were used to review examples of procedures, supporting documentation, and resources for IHLs to develop a robust emergency management plan.

#### **Theoretical Foundation**

In this research study, I used a theoretical approach based on Ajzen's (2002) TPB and FEMA's (2013, 2017) disaster phase model. TPB was used to determine the behavioral control of people involved in campus emergency preparedness and how they respond to a hurricane-related event. TPB was also used to associate behavioral responses in the event of the threat of a hurricane-related event, which could also be influenced by fellow students, family members, colleagues, etc. (Ajzen, 2002; Paek et al. 2010). FEMA recommends that emergency management task force members and campus leadership become well versed and proficient in the disaster phase model. In many cases, local and state government agencies have mandated that colleges and universities adhere to the disaster phase model to be prepared in the event a natural disaster occurs and interferes with campus operations. The disaster phase model consists of the following four phases: (a) mitigation, (b) preparedness, (c) response, and (d) recovery (FEMA, 2017). A brief overview of the four phases of the disaster phase model is as follows:

- a. Mitigation includes activities completed to minimize or reduce the chances of significant damage as a result of a natural disaster.
- b. Preparedness includes collaborations between campus leadership and designated leaders in order to be better prepared when a natural disaster affects their college community. Preparation could include identifying resources, and supplies, and having emergency management and/or evacuation plans in place in the event a natural disaster occurs and affects campus life.
- c. Response includes the actual execution of the emergency management and/or evacuation plan, ensuring that all staff, students, and visitors are moved to a safe location. Response also includes taking necessary steps to preserve or reduce property damage on campus (FEMA, 2017); and
- d. Recovery consists of making sure that the college campus is safe upon return from a displaced location after the natural disaster has receded.

Recovery can include a period of repairing, restoring, and rebuilding buildings, campus grounds, and restoring campus operations. (Day, 2015)

In this study, I explored the distinctions in human behavior among campus first responders and leadership during hurricane-related events, group disaster behavior, cultures, and myths. A descriptive phenomenological approach was used to explore participants' experiences relative to a hurricane-related event. Some of the keywords and phrases used to create the interview questions included disaster planning, behavioral responses to a hurricane-related event, group behavior, campus health center involvement, behavioral influence, and emotional impact.

# **Literature Review**

#### **Policy and Regulations Related to Natural Disasters**

Since 1992, FEMA (2003) has been providing financial assistance to public and private colleges and universities affected by natural disasters. Earlier natural disasters, such as Hurricane Andrew in 1992 and the 1994 Northridge earthquake, caused significant damage to university campus buildings, campus closings, and displaced students and led to enormous fees for restoration and recovery of the campus buildings. Repair costs exceeded \$380 million and affected 30,000 students (FEMA, 2003). Also, Tropical Storm Allison in 2001 caused extensive damage in the Houston, Texas area, totaling \$950 million in damages to colleges, universities, and the local medical school.

To establish order and standards for institutions of higher education and community organizations, FEMA implemented the Disaster Mitigation Act of 2000 (DMA2000), which was created to ensure that colleges and universities established predisaster planning, resources, and emergency management plans in the event that a hurricane-related event occurred (FEMA, 2003; NCCPS, 2016). DMA2000 initiated regulations that included colleges and universities and served as an increased level of accountability for higher education in the United States. There is also a funding component for premitigation preparation as well as resources for colleges and universities that have experienced a natural disaster and incurred damages to buildings and grounds, damage to research, and additional costs associated with displacement, relocation, and restoration (FEMA, 2000; NCCPS, 2016).

FEMA and the Office of Safe and Healthy Students developed a set of guidelines for IHLs to follow to ensure that disaster-vulnerable universities have a robust emergency management plan in place (Cheung et al. 2014; FEMA, 2014). FEMA has required that all educators and staff have psychological first aid training to assist students, faculty, staff, visitors, and surrounding communities with coping skills and other resources to improve mental and physical well-being during the recovery phase (Everly & Lating, 2021).

# **Emergency Response Plans**

Colleges and universities are responsible for having emergency response plans that include what to do in the event of a hurricane-related event (FEMA, 2003; NCCPS, 2016). FEMA (2003) recommended that the first step to developing a robust emergency response plan includes campus educators and staff assessing the unique types of natural hazards that colleges and universities endure annually. FEMA also recommends that college campuses conduct focus groups with college and university stakeholders to compile important information that should be included in emergency response plans.

Tulane University in Louisiana has a nationally recognized hurricane response plan that includes a checklist and instructions for educators and staff as well as a separate checklist for students, as well as procedures for flooding, tornadoes, and hurricanes (FEMA, 2003; Tulane, 2018). The university webpage includes tabs identified for preparation, response, and recovery instructions. The university requires that faculty and staff complete an annual inventory of their classroom equipment, which includes equipment serial numbers for identification. Educators and staff are responsible for having safeguards in place for protecting university and classroom property, including lab animals, classroom materials, books, research equipment, and supplies (e.g., instruments, documents, etc.; Tulane, 2018). The university also has a designated webpage and emergency contact number to call in the event of a hurricane-related event. There is also a designated employee check-in phone number for faculty and staff in the event that campus is closed for more than 5 days. The university's hurricane preparation checklist also includes information for off-campus students and recommends that students purchase rental insurance as a protective measure for their belongings (Tulane, 2018).

At Tulane, the university includes all faculty and staff in the hurricane preparedness, response, and recovery processes and has staff divided into three categories. Level I includes staff considered first responders who assume the responsibility for ensuring the safety of the campus facilities, equipment, and inventory of the damage (Tulane, 2018). This group includes the campus security and facilities staff and assumes the responsibility for sending updates and instructions via text, web, email, or voicemail to students. Level II consists of educators and staff such as professors, library, information technology (IT), and other staff responsible for maintaining the safety of equipment, records, data, and animals as necessary (Tulane, 2018). Level III consists of educators and staff members who are responsible for instruction at remote off-campus locations and preparing the classrooms for the students returning to campus; this group also includes staff administrators, program leads, and chairs (Tulane, 2018).

The NCCPS was founded in 2013 with a grant issued by the Department of Justice Bureau of Justice program. The organization consists of a group of professionals and governmental associations who share a passion for ensuring that college and university campuses have resources and tools in place to maintain the safety of the educators, staff, and students (NCCPS, 2016). The NCCPS completed a U.S. survey in 2016 focusing on higher education institutions' resources and comprehensive emergency plans in place to ensure the safety of students and institutional resources (e.g., research, data, and artifacts). The results showed that 56% of respondents indicated their college and/or university campus had a robust emergency management plan in place, and 57% of respondents reported their college and/or university campus had an emergency committee to provide oversight and direction in preparation, response, and recovery activities regarding a hurricane-related event.

#### **Emotional and Stress-Related Effects**

While the primary concern of campus first responders is the ensure the physical safety of fellow staff and students, the literature stated that a large majority of trauma-

related injuries are psychological and emotional in nature (McCabe et al. 2014). The American Psychological Association (APA) conducted research on how natural disasters affect the mental health of the communities that were affected by hurricane-related events. It has also been reported that climate change is a contributing factor to the increase in natural disasters over the last few years (APA, 2017).

Many researchers agree that natural disasters influence the emotional well-being of students, staff, and volunteers during the response and recovery phases of a hurricanerelated event (Day, 2015; Amankwaa & Allen, 2017). It has also been determined that hurricane-related events can affect emotional stress many years later (Buschlen, et. al 2015; Simms et al. 2013; Watson et al. 2011). Students and staff have reported having emotional and psychological stress and focused primarily on their basic and/or immediate needs after a disaster, which consisted of some of the following: seeking housing; knowing someone who was injured or killed during a natural disaster; childcare; insurance reimbursement; repairing damages to personal property; and displacement concerns (Amankwaa & Allen, 2017; Bell et al. 2016; Lowes & Rhodes, 2013). A group of student volunteers and staff reported psychological concerns related to posttraumatic stress disorder, depression, and other emotional stressors (Bell et al. 2016; Prost et al. 2016). A large portion of volunteers, students, and staff reported mental health symptoms but not at the clinical level requiring a mental health and/or substance abuse diagnosis (Lowe & Rhodes, 2013; Prost et al. 2016; Watson et al. 2011).

In a study of the emotional impact of campus faculty and staff, some of the campus staff reported that they had to complete tasks outside of their normal duties such

as collecting and delivering mail to students. Many reported being overwhelmed with responsibilities that hindered them from dealing with their own stress and feelings related to the impact of the hurricane-related event (Day, 2015; Bell et al. 2016; UNC, 2021).

In some cases, campuses were closed, and classes allowed faculty and staff to address their emotions prior to teaching in an online environment (i.e., Skype) or webbased classes (Day, 2015). It was also reported that educators and staff were encouraged to be in better control of their emotions without additional support to assist professors in dealing with their emotions as it relates to recovery efforts and being separated from loved ones (Day, 2015). The identified significance of addressing the mental and emotional well-being of campus first responders and volunteers has been identified as an unmet need that needs to be further researched and addressed (Bell et al. 2016).

#### **Establishing Roles**

In several cases, campus staff reported they had to operate outside of their primary roles and positions that they were hired to fulfill on campus. Employees reported constantly shifting roles as well as fulfilling their primary job duties during the disaster response and recovery efforts (Treadwell, 2017; Bell et al. 2016). Staff in clinical, administrative, student affairs, health services, and teaching roles operated in additional roles during the post-disaster recovery phase (Treadwell, 2017). For example, some of the campus professors had to assist with the library and campus health centers (Bell et al. 2016; Owens, 2016). In some cases, there was a level of uncertainty regarding the roles and responsibilities of staff during the response and recovery phase (Fillmore et al. 2011). There were instances where campuses reported that implementing pre-planning roles and responsibilities of educators and staff made a major impact regarding the execution of the mitigation, response, and recovery stages of the hurricane-related event (Beggan, 2010). Also, strengths in the emergency management process included campus leadership establishing recovery teams and potential strategies during the planning and preparation stages involving a natural disaster (Beggan, 2010). There is the responsibility of campus administration to provide ongoing education and awareness opportunities throughout the academic year for students and staff and to teach students to assume more responsibility for their role in disaster preparedness and (Apsan, 2013; Beggan, 2010). It is also important to mention that numerous college campuses serve as shelters for surrounding neighborhoods, which would include collaborations between city, county, campus first responders, and designated staff (Apsan, 2013).

#### **Role of the President**

In ensuring that the students, staff, and educators are equipped and educated prior to a hurricane-related event, it is the responsibility of the university chancellor or president to designate faculty and staff from various departments to serve as members of an emergency preparedness committee (FEMA, 2003; IEDC, 2018). Some of the departments include but are not limited to the following: campus police, campus health center, communication and/or marketing departments; facilities management; and finance departments. The president also ensures that community and governmental partnerships are in place with local law enforcement, local and state emergency management agencies, non-profit organizations, and community health organizations (IEDC, 2018). The university president also assumes the ultimate responsibility for determining school closings, activating the emergency response system, and rolling out the disaster plan (Apsan, 2013).

### **Training, Preparation, and Assistance**

In the last decade, disaster preparedness, also known as hazard mitigation and emergency preparedness has been an increasing concern for colleges and universities in the United States (FEMA, 2003; NWS, 2019). In some cases, campus first responders have identified that they have limited access to needed resources during the response and recovery activities of colleges and universities related to hurricane-related events. Campus leadership has identified several tools to assist in being better prepared for a hurricane-related event. Strategies that have been implemented include but are not limited to the following: creating emergency preparedness videos and mandating that staff and students view them annually or as needed or developing and implementing a continuum to maximize the learning experience from other campuses who have more experience in addressing hurricane-related events (Cheung et al. 2104; Day, 2015; FEMA, 2003;). Institutes of higher education have developed and implemented academic continuity plans, mobile device applications, toolkits, and online courses to use on a short-term basis during the recovery phase. Campus emergency management staff are utilizing semiannual emergency drills in the form of tabletop exercises, disaster preparedness fact sheets, campus-wide communications, and mock drills such as campus lockdowns and evacuations (Day, 2015; Fillmore et al. 2011).

In Canada, FEMA (2003) and the Canadian regional emergency preparedness program recommends that university students have essential supplies to cover a 72-hour period to allow time for government officials to have additional supplies in place for its recipients (Tanner & Doberstein, 2015). A southeastern university established a hurricane preparedness page on its university website, which identifies what faculty and staff should do in the event of a hurricane-related event (GSU, 2018). The webpage also includes the responsibilities of university staff within 48 – 72 hours prior to a storm making landfall. The webpage information provides advice and resources for staff, encouraging them to have a personal family emergency plan in preparation for hurricane season. This is an example of a resourceful guide to encourage educators and staff to think ahead regarding the safety of their families, especially since they hold the dual role of ensuring the safety of their families and guiding students to safety (GSU, 2018).

In addition, the state of Georgia created and implemented a phone application called ReadyGeorgia, which is promoted as a useful tool for families to store hurricane planning information and resources (ReadyGA, 2018). The application provides useful information such as evacuation routes, shelter sites, and traffic information. Families can create a checklist and personal preparedness plan for their families and can receive updates for up to 3 counties of their choice (ReadyGA, 2018).

#### **Psychological First Aid**

This evidenced-based program was created in 2005 by several governmental organizations sharing the responsibilities of providing disaster mental health services and resources to victims who were affected by various types of disasters, including hurricanerelated events. This model was created to provide a program that can be utilized widely utilized by first responders and community staff alike, treat and address related behaviors and injuries, provide support and stabilization, and identify mental health resources to victims and families. Psychological First Aid (PFA) will be utilized by various support organizations including but not limited to governmental agencies, health centers, IHLs and social services organizations (NCTSN, 2014).

#### **Partnerships and Assistance**

After a hurricane-related event has significantly affected college campuses and surrounding communities, the faculty and staff are primarily responsible for providing recovery assistance and guidance to the students (Dunlop et al. 2014). While local and state government requires IHLs to accept responsibility for the safety and accountability of the students, there are other individuals such as visitors, non-emergency faculty and staff, and other academic institutions who step in and assist with providing additional support and resources during the campus recovery phase (Dunlop et al. 2014). Faith-Based Organizations also partner with IHLs, providing additional supplies, food, and alternative shelter options to students and families (McCabe et al. 2014). The educators and staff cannot do it alone, and in many cases, campuses affected by hurricane-related events will receive assistance from external organizations and other colleges and universities to ensure that the students have temporary housing and resources during recovery efforts. As an example of IHLs assisting other campuses, a university in New Hampshire provided tuition-free assistance to approximately 20 students affected and displaced by Hurricane Harvey in 2017 (Ramer, 2017). The selected students received free tuition and room and board for a year. The resources mentioned above are a snapshot of the examples that were further explored in this research study. FEMA reported that

through preplanning activities and effective emergency plans, IHLs will reduce the timelines for recovery efforts, reduce financial losses, and decrease timeframes to restore campus operations (FEMA, 2003).

## **Theory of Planned Behavior**

The theory of planned behavior (TPB) was used to determine the behavioral control of people relative to the importance of campus emergency preparedness and how people respond during the response and recovery phases of a hurricane-related event. This theory is used to associate the person's behavioral responses in the event of a threat of a hurricane-related event which would be potentially influenced by a fellow student, family member, colleague, etc. (Ajzen, 2002; Paek et al. 2010).

# **Disaster Phase Model**

The best practices identified by FEMA recommend that designated campus leadership become well-versed and proficient in the disaster phase model (FEMA, 2013; IEDC, 2018). In many cases, local and state government agencies have mandated that colleges and universities adhere to the disaster phase model in order to be prepared in the event that a natural disaster occurs and disrupts campus life and operations. The disaster phase model consists of the following four phases: mitigation, preparedness, response, and recovery (FEMA, 2013; 2017).

# Conclusions

Previous literature has determined that there is a great deal of research as it pertains to student perceptions relative to an IHL being prepared for a disastrous event. It has also been determined that disaster planning and preparedness is considered a lower priority to international and off-campus students. It is the responsibility of campus leadership and administration to provide increased guidance and support to this special group to ensure that all are safe and accounted for. It has also been determined that as a normal practice in disaster response, campus leadership will send in-state students home to be with their families. Some IHLs have created and implemented electronic programs such as phone apps, social media pages, and computer programs to assist the students in being alerted in real-time in the event of a hurricane-related event. Lastly, it has been determined that IHLs will partner with local, state, and fellow community organizations to ensure that resources are available for all.

Little research is available regarding the experiences of the campus leadership and administration regarding the planning, preparedness, response, and recovery stages of a hurricane-related event. This research study provided an overview of the experiences of university leadership and campus first responders prior to, during, and after a hurricanerelated event.

This research study explored the experiences of campus leadership and campus first responders during hurricane-related events and group disaster behavior. A descriptive phenomenological approach was utilized during the research study to explore the experiences of the participants relative to a natural disaster warning, watch, or actual hurricane-related event. Some of the keywords and phrases that were used to create the interview questions included the following: disaster planning, behavioral responses to a hurricane-related event, group behavior, and behavioral influence. Chapter 3 will discuss the following components: an overview and rationale of the research tradition, the phenomenon of interest, and an overview of the role of the researcher. The following chapter will also contain a detailed overview of the methodology to be used for this research study, the instrumentation to be used, the participant selection process, data collection, and data analysis processes. Chapter 3 will also include the proposed protocol for recruiting participants and a detailed overview of issues of trustworthiness, which will include a discussion in relation to ethical considerations during the study.

## Chapter 3: Research Method

# Introduction

The purpose of this qualitative, descriptive phenomenological study was to explore the experiences of designated campus leadership (staff, faculty, resident assistants, resident directors, volunteers, etc.) identified as campus first responders. In addition, the purpose also seeks to explore the emotional impact of the first responders in the preparation, response and recovery activities of hurricane-related events at a college or university in the southeastern United States. The goal was also to gain a better understanding of campus leadership's beliefs and behavior control as they return to the university, fulfill their duties, and lead their teams in the wake of a hurricane-related event.

Chapter 3 will include an overview and rationale of the study's research tradition, as well as the phenomenon of interest. This chapter will also include an overview of the role of the researcher and a detailed overview of the methodology used for this research project. The methodology section will also cover the instrumentation used, the participant selection process, instrumentation, data collection, data analysis processes, as well as the protocol used for recruiting participants. Lastly, this section will provide a detailed overview of issues of trustworthiness, which includes ethical considerations during the study.

### **Research Design and Rationale**

# **Research Design**

A descriptive qualitative phenomenological approach was appropriate for this research study. The qualitative methods approach is conducted in a natural setting and may increase understanding regarding how and why a phenomenon occurs (Patton, 2015). Patton argued that phenomenology is focused on exploring participants' experiences or worldview of the phenomena of interest. In this study, the chosen participants experienced the phenomena and could provide an array of knowledge regarding the event. The goal of a qualitative researcher is to seek a better understanding of the experiences of the participants. In this study, a qualified participant sample included college educators, safety, campus health, and residential life staff who participated in the response and/or recovery activities surrounding a hurricane-related event.

# **Research Questions**

The following research questions guided the study:

RQ1: What are the experiences of campus leaders who have been involved in hurricane response and recovery efforts that have interrupted campus life and operations?

RQ2: What is the emotional impact of designated campus leadership members who have responded to a hurricane-related event as a part of emergency response and recovery efforts?

# Rationale

In phenomenology, a researcher seeks to better understand the experiences of participants. In this study, each participant provided different experiences of the same encounter, as interpreted by their own accounts of the events that occurred during the college or university campus emergency management plan (see Patton, 2015). I anticipated that participants would be familiar with the campus emergency management plan that included response and recovery guidelines. For example, an appropriate participant sample would have included college educators, staff, resident directors, and/or resident assistants who participated in the response and/or recovery activities surrounding a hurricane-related event. Designated campus leadership shared their experiences regarding the last hurricane-related event they experienced while being employed by the university (see Patton, 2015). Each participant reported a different experience of the same event as interpreted by their own accounts of the events that occurred during the response and recovery efforts.

## **Role of the Researcher**

The role of the researcher is the instrument used in qualitative research to capture the feelings and thoughts of the participant group (see Ravitch & Carl, 2016). While I had many goals and objectives during this study, the primary goal was to gather responses relative to how hurricane-related events affect campus operations and campus life and to collect, interpret, and analyze data retrieved from observations and interviews. I am not a member of the participant group and limited my participation to better understand the participants' feelings and accounts of the response and recovery events surrounding a hurricane-related event. The participants were informed throughout the data collection and data analysis processes of the study.

The participants of this study were not previously known to me; therefore, no personal or professional relationships were established prior to the research study. The participants were chosen from a college or university using a combination of purposeful sampling by the university president or designated administrator and the snowball sampling process to secure additional participants for the study as deemed necessary. Patton (2015) argued that snowball sampling refers to participants being chosen based on referrals from current participants, creating a snowball effect once a potential participant gains interest in a study.

I desired to direct a research study while eliminating any bias, falsification, and/or exploitation (see Creswell, 2009). I felt confident that I had the necessary resources and course of action without limitations. A well-crafted plan with all things considered is necessary prior to the start of a research project. Creswell (2009) stated that a researcher is responsible for protecting participants, developing a positive rapport, ensuring trust, and ensuring that a research study maintains a positive experience that exudes integrity throughout. I intended to retrieve outcomes that would present a clear picture of the experiences of educators and staff who participated in response and recovery events involving the college and/or university campus and operations.

There was ongoing discussion and follow-up between the participants and me regarding the flow of the research project. I did not use language that would present any form of bias, bringing special attention to addressing and respecting any emotions the participants may experience as they provided various accounts of their experiences (see Creswell, 2009). To remain unbiased during this research project, I set clear boundaries and expectations during the planning stages of the study. I also maintained a positive relationship with all participants throughout the study to improve credibility and optimize the findings.

The study findings were written with the goal of eliminating any inappropriate phrases, descriptions, or words that would be demeaning to the participants involved in the research study (see Creswell, 2009). I also provided participants and university administration with a detailed summary of the expectations of the research study and used unbiased language that would be the best representation of the participants involved in the project. Any form of discrimination is not acceptable, and this was reiterated to all participants throughout the course of the research project (see Creswell, 2009).

# Methodology

## **Sampling Strategy**

The data triangulation process was used as a method of cross-referencing the data to improve the validity and credibility of the data collected. The following data sources were used to assist in the data triangulation process: individual interviews and document reviews (e.g., policy, state and/or federal regulations, university archival documents, university disaster response team documentation, etc.). Colaizzi's (1978) data analysis model was used to guide the themes and patterns to aid in the comparison of the experiences of the participants. I aimed to learn participants' perceptions of the disaster response and recovery activities of a hurricane-related event. The four phases of emergency management were used to provide an overview of the mitigation, preparedness, response, and recovery activities that campus leadership used during a hurricane-related event, which is also referred to as the disaster life cycle or disaster phase model (Vasilescu et al. 2008).

# **Recruitment and Participant Selection**

Potential participants consisted of faculty, staff, residence life staff, and/or facility administration who were designated to participate in the response and recovery activities within the university. Participants were recruited from the following departments: facilities management, campus health center, financial aid, residence life, campus police, social work, and library services. The university vice president or designee was provided the opportunity to select key informants to determine appropriate participants. The selected group chosen for the research study had experienced at least one natural disaster.

I sought to streamline the sample size to 10 educators, staff, residence life, or designated emergency management task force personnel (see Patton, 2015). The chosen number of participants allowed for participants who changed their minds or were no longer able to participate in the study. Purposeful sampling was used to determine campus faculty, staff, and/or administrators within the following departments: facilities management, health services, residence life, safety committee staff, campus police and security. I identified participants regarding their roles and responsibilities during at least one natural disaster as an employee and/or campus first responder who agreed to share their experiences before, during, and after hurricane-related events that occurred over the last 5 years. No more than three–five interview questions were administered to faculty and staff during a 60-minute interview process with participants who played a significant role in the preparedness, response, and/or recovery activities in a hurricane-related event employed by the university. The interview questions did not exceed 60 minutes to respect participants' time.

# **Data Collection**

The data collection tools chosen for this research study included a combination of documentation reviews and individual interviews to gather the participants' responses (see Ravitch & Carl, 2016; Rubin & Rubin, 2012). I reviewed state and federal policies, regulations, and other documentation to gain a better understanding of the requirements and expectations to be a disaster-resistant university (FEMA, 2017). The data collection tools for this study assisted with screening appropriate candidates and collecting their accounts of the response and recovery events of a hurricane-related event. In-depth interviews were used as an open dialogue for participants to share their experiences to improve the quality of the data (see Patton, 2015). The participant group was provided the opportunity to provide their experiences relative to emergency response and recovery efforts on the university campus and how their experiences would contribute to ensuring participants' emotional and behavioral needs were addressed after a hurricane-related event.

The use of individual semistructured interviews aided in gathering the experiences of the participants regarding a hurricane-related event that affected campus life and operations and activated the university's response and recovery processes. The participants were chosen through a purposeful sampling process and were educators, staff, resident directors, and other involved departments that serve as campus first responders or leaders responsible for ensuring the health and safety of students, campus visitors, and non-emergency faculty and staff. The intent of the individual interviews was to give participants an opportunity to share their experiences of the response and recovery activities of the hurricane-related event and to gauge their level of trust in the university's current emergency response and business continuity plan. Providing a clear explanation of the contents of the study, how the data will be used, and allowing the participants to ask questions assisted with collecting quality data and improving the validity of the collection process (see Rudestam & Newton, 2015). A total of three-five semistructured interview questions were used during the data collection process, allowing opportunities for follow-up questions with the study participants. An informed consent form was provided to all participants and described the process for gathering, transcribing, and storing interview information. I provided a written and verbal overview to participants of the collection, transcription, and storage processes prior to the start of the interview. All interviews were recorded on an Apple audio device used for collecting participant responses. Any data and documents collected for the study are stored in an external cloud storage that is password protected. Only the dissertation committee and I have access to the raw data responses.

## **Sample Size and Data Saturation**

A combination of individual interviews, university document reports, the university emergency preparedness and response plan, and any archival documentation was reviewed. The university president or designee was provided the opportunity to select key informants for the study to interview participants representing the following departments: facilities management, campus health center, emergency management task force members, campus police and security.

Data saturation was determined when there were no longer any faculty and/or staff participants who met the participant selection criteria and when all the data sources were exhausted (Mason, 2010; Guest et al. 2006). Data saturation most often occurs when there is enough information gathered to appropriately answer the research questions. Data saturation is likely after 15 participants have been interviewed and/or based on the participants' responses being repetitive and/or redundant. A larger participant sample does not necessarily determine that the researcher will gather more data and knowledge and many times it is hard to justify data saturation (Guest et al. 2006; Mason, 2010). Guest et al. (2006) also argued that the researcher looks at various concepts and makes the determination that the gathering of these concepts should be exhausted. The researcher also determined there was no more room for the concepts to be incorporated into the identified theory.

#### Instrumentation

The researcher formulated a list of open-ended interview questions to be used for semi-structured interviews with the participant sample. The participants were provided the option to complete the interviews via telephone. An informed consent form was provided to all participants and described the process for gathering, transcribing, and storing interview information. The researcher also provided an overview to participants of the information gathering, transcription, and storing process prior to the start of the interview. All the interviews were completed by phone as the university partners were following COVID-19 protocols at the time of research study. All interviews were recorded on an Apple audio device used for gathering the participant responses. Once the interviews were completed and transcribed, they were stored in a cloud storage that is password protected. Only the researcher and committee have access to the responses from participants and the raw data will be deleted after the research has been completed.

The interview questions covered the following: (a) the participants' experiences regarding involvement in the response and recovery activities of a hurricane-related event that interrupted campus life and operations, and (b) the emotional impact of campus first responders who were actively involved in the natural disaster response and recovery events. The Institutional Review Board (IRB) application was completed and submitted to Walden University's IRB committee for review and approval as the primary IRB committee. The researcher was required to go through the IRB application and approval process with the university partners which served as the secondary IRB and research partner during the research study. Once the IRB approval process was completed, an electronic format of a request for participation form was distributed via email to the prospective participants, requesting approval to move forward with the interview process. The request for participation form included an overview of the following: purpose of the study, why the participant was chosen for the study, protection from harm, informed consent, confidentiality, and how the data findings were used (Rudestam & Newton, 2015). A consent form was provided to potential participants which provided detailed

information relative to the research study, interview procedures, risks and benefits and consent to participate in the study.

# **Pilot Study**

Pilot interviews were conducted with 2-3 designated faculty and staff within the university to test the research questions and determine if revisions were appropriate prior to implementing the questions to the participant sample. The pilot study was administered beyond the study sample via individual interviews with the selected participants (see Ravitch & Carl, 2016). The interview questions were provided to a pre-selected group of educators and staff at a disaster-vulnerable university located in the southeastern United States who met the participant selection criteria of the study. Some of the participants were recommended by the University Emergency Managers and provided qualitative responses regarding their experience and involvement during and after a hurricane-related event affecting the campus community. Administering the pilot study was beneficial in assessing the appropriateness of the interview questions and to determining if the questions captured the findings needed to answer the research questions (see Ravitch & Carl, 2016). The results of the pilot study allowed opportunities to make small adjustments to the interview design (see Ravitch & Carl, 2016). The findings assisted with ensuring that the results were related to participants' perceptions and addressed their involvement in response and/or recovery activities.

# **Ethical Procedures**

The researcher received approval from the University's Institutional Review Board (IRB) in order to secure permission to conduct research on human subjects.

Approval was secured by the university partners and the researcher began connecting with potential subjects through informed consent. The researcher ensured that there was ongoing respect for the participants, ensured no harm, as well as maintained honesty and fairness during the research study. The researcher also ensured other ethical principles such as protecting privacy and informed consent of the participants. The research study included sensitive points in which participants shared their accounts of a hurricanerelated event that involved some level of emotion that could potentially resurface during the interview process. The participants were informed that their participation in the study is voluntary, and they could end the interview whenever possible without pressure or judgment (Rudestam & Newton, 2015). The researcher took every step in protecting the anonymity of the participants' names and any identifiable information and used numerical codes in lieu of their actual names (Rudestam & Newton, 2015). Respect was given to all participants, especially those who choose to end the interview early or withdraw from participation in the study. It is not the intent to recruit vulnerable participants during the stud and the interview questions were not intentionally disturbing to the participants (Rudestam & Newton, 2015). Once participants' feelings surfaced, the researcher gave the participants opportunities to end the interview stop and allow time for the participant to regroup prior to continuing the interview. The participants received continuous reassurance that their information will be protected from harm and their identity will remain confidential throughout the research study. Further discussion with the participants relative how the data would be used for the study and the purpose of the data collection could potentially pose some additional concerns for the participants. The

participants were informed that they can end the interview at any time under any circumstances.

There may be instances where participants would feel uncomfortable answering the interview questions due to anxiety regarding executive leadership responses or disapproval of their comments. The researcher provided reassurance that their information and any identifiable information would remain confidential and as often as necessary. The participants were given the right to opt out of the research study at any time without pressure or judgment. Participants were also given additional time to ask questions and provide further clarification as necessary.

# **Data Analysis**

Once the pilot and research studies were completed, the researcher transcribed the self-reports and digital recordings of the individual interviews utilizing the rev.com transcription service. Once the interviews and transcriptions were completed, the researcher reviewed the transcription and made additional corrections and adjustments. Once the transcription process was completed, the researcher will utilize Colaizzi's data analysis method to code the data collection into significant statements, themes and subthemes.

### Handling Discrepant Cases

While identifying themes and subthemes in the data, the researcher paid close attention to discrepant or unusual responses that would not fit into the current themes of the data received during the research study. The participant responses varied due to the level of understanding and/or comprehension of the participants relative to the interview questions. Discrepant responses required a second interview with two participants for further clarification. Interview results identified as unusual or discrepant in comparison to the data are noted in Chapter 4 in the findings.

# **Issues of Trustworthiness**

During this research study, themes were identified in the data findings in order to decrease researcher bias (see Ravitch & Carl, 2016; Shenton, 2004). The data triangulation process was used as a method of cross-referencing the data to improve the validity and credibility of the data collected. The following data sources were used to assist in the data triangulation process: individual interviews, document reviews [e.g. policy, state and/or federal regulations, university archival documents, university emergency response task force documentation, etc.]. At the end of each interview, the researcher completed a debriefing process with the participants to allow for any final questions and confirmed the validity of the participants' responses. The researcher offered to playback the recorded responses to participants to ensure member approval and accuracy in the responses. Another opportunity was provided to participants to review the data collection once the transcription was completed. Inter-coder reliability was also used in order to improve the validity of the data collection and coding relative to the experiences of campus first responders and hurricane-related events. Inter-coder reliability will also ensure that the researcher used the same processes and minimize any bias during the data analysis.

# Credibility

The researcher offered to playback the recorded responses to participants to ensure member approval and accuracy in the responses. Once the interviews were completed, the researcher reviewed the participants' statements and offered that participants would review the responses to ensure accuracy. Participants had the option to decline to review the recorded responses and transcription data.

### Transferability

Purposive sampling was used by requesting that the emergency managers provided recommendations for suitable participants for the research study. The suitable participants were key informants of the campus emergency response processes and participated in at least one hurricane-related event as a campus first responder. Purposive sampling was also used to confirm if the data collection was appropriately projected according to the participants' experiences. The data collection captured served as a representation of the participants' unique accounts of the hurricane-related event (see Ravitch & Carl, 2016).

#### Dependability

The analytic memos and transcription notes completed during the individual interviews were thoroughly reviewed multiple times to ensure accuracy in the responses to ensure that the researcher captured the key concepts of the data collection.

#### Confirmability

After the participant interviews were completed, the researcher reviewed all notes with the interviewees to ensure that the responses were captured according to how the participants wanted their perceptions to be shared. The participants were given the right to decline an overview of their interview responses. A reflexive journal and Excel spreadsheet were used and included descriptive notes with a detailed overview of the activities that occurred during the interviews (see Ravitch & Carl, 2016).

#### **Ethical Procedures**

The researcher received approval from the University's Institutional Review Board (IRB) in order to secure permission to conduct research on human subjects. Approval was secured by the university partners and the researcher began connecting with potential subjects through informed consent. The researcher ensured that there was ongoing respect for the participants, ensured no harm, as well as maintained honesty and fairness during the research study. The researcher also ensured other ethical principles such as protecting privacy and informed consent of the participants. The research study included sensitive points in which participants shared their accounts of a hurricanerelated event that involved some level of emotion that could potentially resurface during the interview process. The participants were informed that their participation in the study is voluntary, and they could end the interview whenever possible without pressure or judgment (Rudestam & Newton, 2015). The researcher took every step in protecting the anonymity of the participants' names and any identifiable information and used numerical codes in lieu of their actual names (Rudestam & Newton, 2015). Respect was given to all participants, especially those who choose to end the interview early or withdraw from participation in the study. It is not the intent to recruit vulnerable participants during the study and the interview questions were not intentionally disturbing to the participants (Rudestam & Newton, 2015). Once participants' feelings surfaced, the researcher gave the participants opportunities to end the interview stop and allow time for the participant to regroup prior to continuing the interview. The participants received continuous reassurance that their information will be protected from harm and their identity will remain confidential throughout the research study. Further discussion with the participants relative how the data would be used for the study and the purpose of the data collection could potentially pose some additional concerns for the participants. The participants were informed that they can end the interview at any time under any circumstances.

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### Summary

Chapter 3 provided an overview of the methodology that was used for the research study. A descriptive phenomenological approach was used to determine the experiences of the participants who encountered a hurricane-related event in the role of a campus first responder. The researcher asked the participants several semistructured interviews and used purposive sampling process to select suitable participants for the

research study. Snowball sampling was also used based on referrals from the Emergency Management Departments. The researcher conducted a review of archival documents, reports, policies and procedures, state and federal regulatory standards and other documents relative to the subject matter. During the data analysis process, the researcher utilized Colaizzi's data analysis method to code the data collection into themes and subthemes to organize the information.

# Chapter 4: Results

# Introduction

This research study can provide an overview of the experiences of campus leadership relative to hurricane-related events within IHLs. Confidential phone interviews were conducted with participants selected through purposeful sampling. Data collected through interview responses and documentation review of campus EOPs were examined and analyzed. However, emergency management taskforce reports and meeting minutes were not released by the participating universities as requested. A random sample of the participants' responses was resubmitted to participants to confirm statement significance and validity of responses.

The purpose of this research study was to explore the experiences of designated campus leadership with university partners in the southeastern United States who were identified as campus first responders in preparation for hurricane-related events. The study aimed to improve the understanding of campus leadership roles and experiences returning to campus and resuming duties in the wake of a hurricane-related event. The following research questions guided the study:

RQ1: What are the experiences of campus leadership who have been involved in hurricane response and recovery efforts that have interrupted campus life and operations?

RQ2: What is the emotional impact of designated campus leadership who have responded to a hurricane-related event as a part of emergency response and recovery efforts?

In this chapter, I provide an overview of the results of the pilot study, personal or organizational settings that influenced the study, participants' demographics, data collection results, and data analysis. I will also address issues of trustworthiness and the overall results of the research study. I conclude this chapter with a summary.

#### **Pilot Study**

Pilot interviews were completed with two qualified members of campus leadership from the participating universities to evaluate the interview questions and determine if the necessary information would be gathered to answer the research questions. A few minor revisions were made relative to grammar and to improve the clarity of the interview questions prior to the implementation of the research study. The participants chosen for the pilot interviews met the participant selection criteria; however, they were not included in the actual research study. The university partners' emergency management department managers selected the pilot group. As recommended by Martinko and Gardner (1985) and Glense and Peshkin (1992), the pilot study was used to gain additional insight into the research process, interview protocol, and observation techniques.

### Setting

The research study had its share of challenges, mainly due to the university partners' availability as they were addressing COVID-19 outbreaks on their campuses. The research project started with four university partners, but due to the pandemic, the number of university partners was reduced. Communication between the existing university partners and me was sporadic, which led to uncertainty regarding the start dates for interviews. Interviews were delayed by university partners for approximately one year due to the COVID-19 outbreak in March 2020.

The research plan originally consisted of on-site in-person interviews; however, due to the pandemic I had to change the process to phone interviews with the participants. Upon start of data collection, the university partners required that I connect with university emergency managers for buy-in and approval to move forward with data collection. The data collection was eventually completed in spring 2022. Also, during the data collection, one of the emergency managers left the university, which minimized the ability to increase the participant sample.

# **Demographics**

This section provides an overview of the sample participants from the university partners. A total of 10 participants were interviewed from various management levels and departments. Each participant had between 3 and 20 years of experience with their respective universities. All participants in the sample had experienced at least one hurricane-related event or natural disaster while being employed at the university. One participant in the sample reported having no direct involvement with recovery efforts on campus, yet they were appointed to serve on the emergency operations task force at the university. No university presidents or chancellors participated in the research study. Several participants in the sample were a part of executive leadership at their universities. The demographics of the participant sample are shown in Table 1.
# Table 1

Department	Gender	Title	Years employed
Emergency management	Male	Emergency management manager	10
Emergency management	Male	Emergency management manager/professor	10
Facilities management	Male	Director of facilities management	21
Campus police	Female	Chief of campus police	4
School of social work	Female	Director of social work/professor	11
Library services	Female	Librarian and artifacts specialist	4
Residence life	Female	Residence life director	11
University relations	Female	Media and engagement director	4
Physical plant	Male	Director of physical plant	11
Criminal justice	Female	Professor/emergency management expert	4

# Participant Demographics

#### **Data Collection**

A total of 10 participants agreed to participate in the research study from multiple universities in the southeastern United States. The participants requested that they would remain anonymous and no identifiable information would be released. The primary data collection tool used for the research study consisted of individual semistructured interviews. A total of five interview questions were approved by both Walden University and the participating universities' institutional review boards (IRBs) prior to the start of the interviews. The COVID-19 outbreak caused a delay in the start of data collection. The participating universities reported difficulties in starting the interview process during hurricane season while simultaneously operating under their EOPs due to COVID-19. All interviews were completed during the post-hurricane season and the second semester of the academic school year. The data were recorded via an electronic recording device, stored in a cloud, and password protected.

During data collection, the university partners required that I communicate with the emergency management departments prior to the start of the research project to secure buy-in and approval of the study. After several meetings, my proposal and interview questions were reviewed and approved by the emergency management department directors. The emergency management departments also requested to be interviewed initially and the remaining participants were chosen via purposeful sampling. The five interview questions also allowed opportunities to ask follow-up questions to strengthen the validity of the responses. The individual interviews were recorded on an Apple audio device and the recorded interviews were stored in cloud storage that is password protected. Only the dissertation committee and I have access to the raw data.

The individual interviews were completed via phone and were an average of 45 minutes in length. In-depth interviews were conducted with the sample participants to gain a better understanding of the response and recovery efforts the participants experienced during a hurricane-related event (see Ravitch & Carl, 2016; Rubin & Rubin, 2012). The in-depth interviews also created an open dialogue between active participants and me to answer the research questions and identify rich, significant statements to capture the participants' experiences (see Patton, 2015). The interview process also gauged participants' level of trust in their university leadership, EOPs, and response/recovery systems. The semistructured interviews also captured the identified needs of the participants and if their emotional and behavioral needs were met during the

response and recovery processes. I reminded the participants throughout the interview that their responses would remain confidential and no identifiable information would be connected to their responses. I also ensured participants that their interviews could be withdrawn at any time during the study (see Creswell, 2009). During the research study, participants were actively dealing with a pandemic, which led to a significant delay in scheduling and completing interviews.

During the individual interviews, the participants discussed how the hurricanerelated events affect campus life, interruptions in operations, and any necessary evacuations. The participants also discussed the emotional impact that the hurricane recovery activities had on their mental and emotional well-being. Lastly, the participants discussed how proper mitigation and preparedness activities affected the universities' natural disaster response and recovery processes (see Beggan, 2010; Creswell, 2009; Hattersley, 2016).

#### **Data Analysis**

Once the data collection was complete, I used a transcription service, Rev, to assist with transcribing the recordings. Once the recordings were transcribed, I used Colaizzi's data analysis (1978) method to extract the transcriptions into categories. I completed multiple readings of the transcriptions and identified patterns in the participants' responses. Once the patterns were identified and recorded, emerging themes began to surface from the selected responses. As I continued to review the patterns, they were categorized into themes and subthemes. I also extracted significant statements from the participants' transcripts and reviewed them several times to ensure each was relevant to the research questions. The significant statements were then categorized into three identified themes and subthemes (Kr, 2021). A total of 153 significant statements were identified and categorized according to the identified themes. The chosen significant statements were the most descriptive and appropriate to answer the research questions. Table 2 includes a brief description of Colaizzi's seven-step method.

# Table 2

Step	Process	
Read transcripts to become	Read the transcripts several times to clearly	
familiar with the data	understand the phenomenon	
Extract significant statements	Pulled significant statements from the transcripts	
	that related to the phenomenon of the research	
	study	
Broadly categorize and give	Bracketing process was used to help avoid	
meaning to the statements	misinterpreting participants' experiences (see	
	Husserl, 1931); started coding and categorizing the	
	formulated meanings to ensure consistency	
Organize formulated meanings	Clustered the significant statements into themes	
into cluster statements and	and subthemes; reached out to a random sample of	
themes	participants to ensure accuracy in statements	
Compile an exhaustive	Combined theme clusters, formulated meanings,	
description of the phenomenon	and entered descriptions to create the overall	
	structure	
Summarize the exhaustive	Reduced findings to avoid repetition in the themes;	
description to add identification	developed clear and concise statements relative to	
of the fundamental structure of	the phenomenon	
the phenomenon		
Ensure the credibility of the data	Validated a random selection of statements from	
through discussions with experts	participants; ensured statements captured what the	
and participants	participants intended to convey during their	
-	interviews	

Colaizzi's Data Analysis Overview

Once significant statements were extracted from transcripts, I used a table to code

the formulated meanings of the statements and categorize them according to the themes

and subthemes (Colaizzi, 1978; Kr, 2021). Some of the formulated meanings were placed

in multiple thematic categories as some fit into more than one theme. A total of 11 cluster statements were grouped or clustered from the formulated meanings relative to the objectives of the research study regarding the experiences of campus leadership involving hurricane-related events on university campuses. The following cluster themes were identified: (a) uncontrollable nature, (b) clearly defined protocols, (c) responsive leadership, (d) uncertain weather patterns, (e) supportive staff, (f) preparedness drills, (g) established roles, (h) improving relationships, (i) safety, (j) shelter in place, and (k) access to resources. An example of the analysis process illustrating the formation of emergent themes is shown in Table 3.

# Table 3

Significant statement	Formulated meaning	Cluster statements	Theme
I would say a disadvantage is that because folks did do some of the roles during the mock practice, even though some of the roles were randomly somebody so, for example, someone from student affairs office must travel with the students. Well, when they did the practice, they didn't actually travel and so when it came	Ongoing confirmation of anonymity increased the participant's willingness to share raw feelings and establish trust during the interview. The participant wants to learn and grow from the study findings. Roles need to be clearly identified	Identifying roles and responsibilities to departments (instead of individuals)	Relationships
real-time, I know that it was like, "Well, so and so did it with the practice," and they were like, "Yeah, that was a practice. That doesn't necessarily mean they're going to be doing it every time"	Communication between departments needs improvement		

# Example of the Steps to Formulating Emergent Themes

The participants' narratives created a detailed, comprehensive explanation of their experiences during the mitigation, preparation, response, and recovery phases of a hurricane-related event. Extracting the participants' significant statements, identifying formulated meanings, and creating cluster statements condensed the findings into emerging themes. A total of three emergent themes were developed to aid in further exploring the experiences of campus leadership relative to a hurricane-related event and resulted in the following themes: (a) support, (b) relationships, and (c) challenges.

# Themes

Emergent themes were developed using Colaizzi's (1978) phenomenological data analysis model. The transcriptions were reviewed multiple times, which led to the extraction of significant statements; then I identified and recorded formulated meanings of the statements and categorized them into themes and subthemes (see Colaizzi, 1978; Kr, 2021). The themes identified during the data analysis process consisted of the following: (a) support, as the participants discussed several accounts when they felt supported by executive leaders, emergency management departments, community organizations, and support organizations such as the National Weather Service; (b) relationships, where participants provided information relative to the relationships between educators, staff, and volunteers; and (c) challenges that the university, emergency response teams and/or emergency management departments feel need improvement. The participants also discussed the challenges they face that led to an increase in emotional distress and anxiety among university first responders.

# Support

In identifying the support theme, participants discussed how they felt supported by the institution's executive leadership and the university president. The participants also identified additional persons and external agencies that made them feel like they were supported during and after a natural disaster that affected campus operations and temporarily suspended classes. Participant #6 said,

The administration is quite responsive and communicative. They have frequent,

all-campus calls and meetings and an institute, an all-day institute every semester. Participant #9 stated:

I feel like campus leadership are easy to work with. The upper management is like the chancellor and vice chancellor are more easier to express my professional views on risk and hazards too than others. But ultimately, I am able to accomplish my mission of keeping people safe on campus.

So, the leadership is good. It's a state institution, there's a lot of bureaucracy, but in general it works. Leadership does well, considers our needs as best they can for the funding models we have and everybody gets along fairly well.

Participant #5 said,

As far as like other leadership across campus with the persons I work with during disasters, they're all very staff and student-oriented. And, I feel like they've got the best interest of everyone. Life safety at heart.

Participant #1 shared,

The current leadership is exceptionally concerned with the safety and well-being of the students, and they go to great lengths for preparedness and, safety aspects of the university.

Participant #7 discussed specific leadership members, stating:

Our vice chancellor [VC] was very involved in the communication efforts before and after the disastrous event. The VC was very involved in trying to communicate with the counselor, support what our director's needs were and fast-tracking funding approval. I know that our VC also played a huge part in working with public relations to try and communicate and make sure that what was being communicated out was accurate. So I know the VC had a big role in that so that my director could focus and took a bulk of parent complaints because my director had so many that he was taking some and the VC was taking some.

One of the interview questions involved participants answering how the community health center was involved in response and recovery efforts to assist staff, educators, students, and volunteers. Participant #1 responded,

The health departments actually become a whole lot more active in stuff like that. Before they kind of were the infirmary type of outfit. And that's kind of what they settled into. Participant #2 said:

Student health is a part of the early discussion and what they have done is made sure that they had staff stay on campus in the event that someone was to get injured or something like that and made sure that anything the students could possibly need, it was someone here to help handle that. And then they partnered or ensured that students were getting meals. And then they use the Red Cross, or what have you, and they would make provisions so that meals and things of that nature could be added.

Participant 5 shared:

Well, [campus health center] pretty much they shut down. We took care of their vaccines, put them in a refrigerator that had backup power. They left a message on the voicemail, talking about how to get copies of the records, put messages up on the website for students to get copies of their records and directed students to community resources. You know what, I don't know (their role). I think we did have a series after the event of focusing on mental health and stress, but I don't remember anything during the hurricane event.

Participant #7 stated that a team of departmental professionals work together to identify students who have had any sort of mental illness, physical illness, etc.... they're not coming to class or they seem to be reserved and not engaged.

Participant #8 said,

Our health center wasn't involved...didn't come back to campus. It was only emergency personnel on campus for the first two weeks. Our health center's just students' health, so kids, inoculation, etc. They were not a part of it at all. Participant #10 stated,

We always had some level of healthcare station with the students. If we evacuated or moved them to another location, we always had a healthcare professional there on staff with them, wherever they were for any type of treatment or injuries that they may have.

One of the participants stressed the importance of making sure educators, staff, students and campus volunteers were made aware of the emotional support that was available to them during and after a hurricane-related event through the campus health center. Participant #6 stated,

> So I do know, they (campus health center) sends out messages campuswide, that goes to everyone who's affiliated with the campus, not just the students. Um, saying that if they're in need of counseling or any other psychological help that they know there are people there who are available to assist them, and of course the health center's there if anyone has any, any health problems or issues. Campus Health Center is pretty proactive about asking people if they have any emotional or psychological distress.

Several participants either did not know how their campus health center was involved in response and recovery efforts or confirmed that the campus health center was not involved in any way in the emergency management task force. One participant reported uncertainty in the campus health center's support during the response and recovery phases of a hurricane-related event on college campuses. Participant 7 said,

I don't remember the campus health center playing any part in the post-response recovery efforts. Maybe some communication. I don't remember them doing much of any role.

As the participants continued to discuss their feelings of support by university leadership, they also expressed their gratitude for having the autonomy to make decisions relative to their respective departments in the event of a hurricane-related event. For example:

Participant #3 stated,

The campus leadership overall is very good. We've seen a lot of changes. The (current) leadership is a great, tremendous improvement compared to what we've had in the past, with a lot of new things coming into the university. A lot of funding, more funding coming into the university, and many projects are happening on and throughout the campus. So (we're) experiencing a lot of growth. It's kind of rare being so close to the coast....and so in doing so, the university is very aggressive about meetings, pulling everyone together from every department to discuss what we, including the Emergency Manager as well, what we need to do, what's expected here.

Participant #7 said,

So, I am typically the one who organizes the efforts. Once we're told what the efforts are going to be, I make the spreadsheet, make the folder, whatever it is. Sit down, charge the team with it, get it going, and then I join the team. So, I'm

putting my tennis shoes on and getting out there with them. Then typically in the evening, if there's anything that needs to be cleaned up with a spreadsheet or whatever, I clean it up, communicate it up to who needs it to be, and then we start over the next day.

As the participants discussed leadership support during the interview, some of them also talked about the benefits and disadvantages of having a proactive stance on mitigation and preparation for a hurricane-related event.

Participant #6 stated,

We have staff and faculty senate meetings, and anyone can join in and listen in on the administration, voice their concerns, and faculty are quite vocal as well. So, I'd say there's pretty good communication between the administration, the faculty, and the staff. Uh, before we left (campus), um, we knew well in advance that a hurricane was coming....I would say the advantages are that it helps to have a plan, um, in case of a disaster...so you can mitigate extensive damage and minimize the risk of any injuries. But the disadvantages, of course, are that you can't predict everything.

Participant #9 said,

It was interesting because our Emergency Management did a dry run exercise. We did a tabletop exercise of a Category 5 hurricane a couple of years before, and we got a chance to work out a lot of the bugs of things, communication-wise and/or resources. We had a good chance to think about that.

The university has a disaster plan that everybody has to do ahead of time. But until you're put into a situation, you really... Even a fake situation, you don't think about it as accurately as when you are in it. And, so we were fairly well prepared, as best you can be prepared for a hurricane, which you can't be fully prepared. I mean, you just do the best you can. And so, we had practiced a couple dry runs already.

Participant #10 stated,

We get to be involved in real-life planning processes, including with the university for emergencies and disasters...they (leadership) could probably do a slightly better job of organizing staff responsibilities on a campus like this (size).

One of the interview questions addressed any financial or in-kind support and well as any resources that were beneficial to the various departments. Another question also addressed if there were any external partners or support from the community. Participant #7 shared a wealth of information that covered all interview questions and addressed the research questions. Participant #7 said,

The university created a scholarship. Well, the division created scholarship-type funding is what I would call it, but what it really was for students that lost their home or were suffering, needed money, or back home their family was struggling, whatever, they created a grant and so the students could submit it and come in and talk with someone. (The funding) offered a lot of resources, especially to our offcampus students whose apartment complexes were literally closed down by the city. They had nowhere to come home to. In terms of staff, we didn't really have anything.

Participant #8 stated,

They ended up paying us if we tracked our hours...they ended up paying us a certain amount of the time that we worked. I don't remember what they did that through, but that's the only resource I remember for staff.

I think that the university is pretty well set. I don't think we need other resources. Usually post-disaster we need financial support, if there's been an impact on the buildings or things of that nature. But I think for the most part, the university's in a really nice position to respond well to disasters.

Participant #10 said,

The university police force is very community service-oriented. So, they play a major role in response and recovery. They take all of the emergency calls and have partnered with the local police force during emergencies and disasters, they will actually work for the emergency manager and the emergency response team. We have good community relationships with all of the organizations around us. So, we have good support from the local Fire Department, EMS, law enforcement, city/county/state emergency management, the community. We have alumni groups, church groups that we could actually call on to come help if we need to.

As the researcher continued to review transcriptions and significant statements of the participants, some of the participant responses included the need to offer assistance and support to the surrounding communities.

Participant #7 stated, "We've worked really hard to think of ways to show up for our communities and more effectively and efficiently, post-disaster".

Participant #8 said,

One of the things that we've created in response to the most recent event is supporting community partners. And so, we have allocated space on our campus that is accessible to the American Red Cross and to our (local) county for use. So, I have access to space resources, to be able to open those up to the community. If we need things like supplies and things of that nature, that can always be requested, and that's always coordinated through Emergency Management.

## **Relationships**

During the interviews, the participants provided their accounts of relationships between departments, executive leadership and emergency operations task force staff. Participant #2 had a wealth of experience in dealing with natural disasters on campus as well as a total of 20 years' work experience at the university. This participant provided a wealth of information relative to feeling supported by executive leadership and positive relationships between departments. Participant #2 said,

Leadership is offering support, making budgets available so you, so you're not having to jump through hoops to get the materials that you need. Leadership is giving me autonomy to go and get the things that I need in order to get the campus back in operation...and so, it's much better...just keeping people focused, breaking, the tension...having a conversation, stopping work for a minute, and just having a conversation about anything other than work just to get their minds off of (the recovery) for a moment and then back at it...so just trying to keep everyone as loose as possible...and another thing too, listening to the advice of the team members. Staff stay on campus and are ready for boots to be on the ground as soon as the storm is over...we make sure that in the event that students can remain on campus if they like, then we make provisions to get things set up in the location where the students are gonna be housed. Right now, we house our students in our gymnasium...with the support of leadership, we have been able to get supplies that we need...and we, increase our staff by bringing in temporary staff. And so, so it has been quite a bit of a turnaround from the first major event that I experienced being here at the university.

I think everything that we needed, we got access to. I don't think it was anything during the event or after the event that we really needed that they didn't step up and help and help us to get. So, I would say that was not an issue for us. It has not been an issue for us.

In addition, several participants described the relationships between staff, faculty and university management. Participant #1 said, Like most institutions, (relationships between faculty and staff) still tends to be siloed, but it is getting better with the leadership having emphasis on disaster safety and preparedness.

Participant #3 said,

In a university setting, you're a little more, close family knit, a community, where we are here to serve the students. So, you have a greater capacity of customer service that is expected...and so I think everybody works very closely together, to make sure that we maintain those positive relationships to make sure that we give the good customer service to our internal and external customers as well.

Participant #4 stated,

It's a mixed bag I would say. There are some very strong leaders, some thoughtful leaders, and then there are ones who are less than that. I would say it's mixed and it's ever-changing.

Participant #5 shared,

I've been really fortunate to have for the last 10 years in my college, I've had the same Dean, and even though we've had transition amongst our leadership team, we're a very stable unit.

Participant #8 reported,

We have a really efficient emergency team, and I think they work really well and efficiently to get the information out to our campus community the way that we need to, in very quick fashion. Like I said, I do believe we're very collaborative as an institution, and that shows in all of our disaster responses.

Participant #9 said,

Faculty are always interesting to work with. They have their own set of needs.

They're thinking about them(selves) and we're here as support staff. So, they're always interesting to work with. We have a lot of research and other things going on, so there's something different every day.

Participant #10 stated,

Overall the leadership has been receptive to disaster preparedness and the safety of the students.

During an interview with participant #7, it was mentioned that not all faculty and staff get along; however the university has been deliberate to ensure that the relationships improve. Participant #7 stated the following:

So, unfortunately the large number of faculty do not want and do not care to have a relationship with the staff. I think we've started to change that a little bit, particularly through (specialty) teams, because they've seen that we can be of support to students, but it's like a handful.

One of the interview questions revolved around the need for relationships with community organizations. Several participants described the type of relationships that exist within the community. Participant #1stated,

We have good community relationships with all of the organizations around us. So, we have good support from Fire, EMS, law enforcement, emergency management, the community, uh, we have alumni groups, church groups, all of those that we could actually call on to come help if we need to.

Participant #2 stated,

Over my tenure here, (the relationships between faculty and staff) have improved vastly...when I started it was like silos, you know. When I first started here, (the relationships between departments) was more disjointed, more of a disjointed family at the faculty...that was a trying time. We have a great relationship with the National Weather Service there in (the state next to us). And we have that relationship where, you know, we're getting up to the minute changes and things of that nature.

Participant #7 said,

(New leadership) has been very intentional of silos is not how it's going to keep going. So, I do think we're in a shift because new leadership has come to several staff and division meetings. So, I think it's starting to change but you can only do so much until you get those tenured faculty out.

### Challenges

During the individual semi-structured interviews, several of the participants provided their accounts of how challenging the response and/or recovery processes were during a hurricane-related event. Several participants also provided feedback on how their current university processes could be better. Interviews with participants #1 and #4 were beneficial as they discussed the intricate details as members of the emergency operations task force. The participants discussed areas needing improvement relative to structural concerns and the mitigation process.

Participant #1 stated,

I think the biggest thing missing in universities across the country is better mitigation. So, our buildings are not built for storms and bad weather. They're built to be pretty. So, great example of that is any university you go to and they have an all-glass front building. That's just a bad building for disaster. I think we need better resources to do our preparedness planning when we actually do the construction of the different buildings and facilities on campus. I think we need to be looking at waterproof doors, have generators everywhere. Even the flooding aspect without a hurricane is becoming an issue as we start putting more buildings and more parking lots on the ground; that means there's less ground, so we're seeing more flooding. We were short on equipment in order to get things accomplished.

Participant #6 said, "I can definitely see more flooding and hurricanes in our future". Participant #4 said,

The other thing (during Florence) we were lacking a recovery (plan) for the university. So, when it came time to perform certain mitigation activities for that further damage and loss of use of the building (we) didn't have a plan for that, so, we did see improvements between the two (Florence and Dorian), where we're at right now is we still need a solid disaster recovery plan. Participant #7 stated,

Folks say like, oh, we're so collaborative. We want to help, but they don't show up. So, they don't show up. They don't understand what we're doing. They're emailing us about other stuff, because they're getting ahead on their work and we're like, We're literally still catching water through the ceiling." I think that would be my biggest possible observations that stuck with me.

Participant #8 said,

So, I think there is a lot of room for improvement, in terms of our community involvement work with any hurricane-related disasters. Specifically, I heard the university shut down to our community; we wish that the university was there in a larger capacity for our community.

Participant #10 stated,

We could use better mitigation processes so that we can have quicker clean-up after the storm...we need to have a more proactive approach. We currently have a reactive approach to natural disasters.

Participant #10 said,

The only way to be able to solve most of these problems is for the interdisciplinary approach of all of us coming together to be able to solve the issue. So, I think it's getting better. Also, during the individual interviews, a few of the participants discussed the need to have additional support for those who really needed it. Some of the participants' responses included the need to support international and off-campus students during the response and recovery phases.

Participant #3 stated,

Evacuation is of course the easiest, however, a lot of times you may still have students that may not be able to get out of the area such as international students, homeless students or those that live too far to return home.

Participant #8 said,

I think one of the things that's just hard to predict how big a storm is going to be. It's hard to predict who's going to be impacted the most, and I think that's the hardest part of it, is to make sure that we are accountable to and are supporting those that really need it. And it's just hard to pre-plan in advance who that's going to be and where that's going hit us the hardest.

Participant #10 stated,

You have other students that are driving to campus, it makes a little bit harder to decide when you need to make that decision about closures or sending students home.

Several participants in the research study were members of the university faculty who shared the responsibility of educating the students. Their responsibilities include ensuring students have materials, assignments, and support after evacuations, making themselves available for students who are having difficulties in coping, and making sure students are allotted time to submit makeup assignments as necessary. Participant #4 stated,

When the students aren't able to return after a natural disaster and the university reopens it's up to the faculty about university decisions on what absences to grant, makeup time or anything like that. During the interviews, one participant expressed their feelings about faculty support to the students during a hurricane-related event.

When the university re-opens, students have issues with getting refunds for courses and being able to drop courses and whatnot. If they have extenuating circumstances, it's not a very customer-friendly place. So, basically as far as life safety, everybody's good. We're all on board. But as far as like having a good customer service may need some work.

Participant #5 stated,

I think over the last few years there's been criticism up above (from leadership), but I think it's mixed (relationships). I don't think we've seen, like other campuses, where people who are truly dissatisfied where you have a big exodus. The reality is, nobody knows what it's like to be in that person's shoes and in their position. I think for all, there's a lot to criticize, but I also think that as faculty and staff, we might not have the full picture. The only thing the university can do is officially close and reopen. And that is the only area of that. So, faculty are a little bit harder to work with as far as there's no command-and-control structure for them. And then the students, in my opinion, are frequently overlooked, and considered paying customers, especially by faculty. Additional follow-up questions were asked to the participants to gain a better understanding of relationships on campus. Participants also provided responses describing the disadvantages of the response and recovery phases of a hurricane-related event and the need for improvement in certain areas. Participant #5 stated the following:

Faculty a little bit harder to work with. They're very distant and they don't have a very clear-cut organizational reporting relationship. I always think higher ed educators and higher education administrators can always do a better job of communicating with faculty and staff. We do our very best, but I think it's a large institution and there's always room for improvement. If I had to be critical of something of our campus, it was that they put some restrictions on communication that were completely unrealistic when you're talking about people who have relationships.

Participant #6 stated,

I think the campus really needs to be prepared and especially to coordinate with the local, county and state organizations maybe a bit better than they do now. Participant #7 said,

Many changes in leadership has really shaken up the division in terms of leadership. I think my observations would be, and this goes back to Florence and several others, that there's just this consistent...I would say consistent lack of support for essentials professionals when we're returning to work and everyone else is still at home. Why are we continuing to show up? We know that we're at will, but no one else is coming and helping. It is literally facilities management, our housing, campus police and Emergency Management who are here all day, every day...that's it. Where's everybody else at?

I would say a disadvantage is that part of what we did not have a good plan for was the return to campus for the post-assessment. So, that was the hardest part, was who's returning, what do we need to assess? What do we need to do? I think that's when it kind of got chaotic and there was just lots of different priorities by different leaders and it just got a mess and we had to...some work was duplicated because it wasn't tracked. But then it was like, Well, you should have checked for this, and now we're walking a building a third time looking for something different. So that was a huge disadvantage.

I would say another disadvantage is that because folks did do some of the roles during the mock practice, even though some of the roles were randomly somebody...so for example, someone from student affairs office must travel with the students. Well, when they did the practice, they didn't actually travel and so when it came real-time, I know that it was like, Well, so and so did it with the practice, and they were like, "Yeah, that was a practice. That doesn't necessarily mean they're going to be doing it every time".

Participant #8 said,

Our problem was we couldn't get people back to campus. That was our biggest problem. More people. Because of where we are located and the flooding that happened, we just couldn't get people to campus. I don't know that we could have planned any better for the weather and the surrounding conditions of where we lived, just precipitated that. So, more people to do the evaluations and get here quickly was probably our biggest hampering.

One of the interview questions revolved around if the participants felt there were things needed that they didn't have access to. Participant #7 reported,

I feel like we needed safety here. They were asking us to go into the same buildings with just a mask on, and we saw the companies who are responding to help us, disaster relief companies, in full booties fully zipped up, safety with goggles and hats. Then they were like, "you'll be fine"....I don't think we had enough safety resources. I don't think that we were put in safe situations anyway. We kept asking if someone could come from Emergency Management or somewhere to assess the conditions we were working in...I also would have loved if we could have had resources, like not asking us to immediately respond so that we could take care of our home life, we could remove the trees from our driveways.

Overall, the participants who answered this question felt there was a need for assessing the safety of the environmental conditions on campus during the recovery phase of a hurricane-related event. Some of the participants also felt that the university should have allowed more time for the campus responders to ensure that their personal lives and belongings were in a safe place prior to returning to campus to address the immediate concerns after a hurricane-related event.

#### **Evidence of Trustworthiness**

# Credibility

During many of the individual interviews, the participants gave their views relative to the Emergency Management Managers and the Emergency Management Department's role in ensuring the safety of the students, faculty, staff and volunteers. Many of the participants also reported that the staff in the Emergency Management Departments lead mock exercises and live events appropriately. Several of the participants also agreed that the Emergency Management Department and Emergency Operations Team played a significant role in being strong, positive leaders. The participants also stated that the members of the Emergency Operations Team and campus first responders were well-equipped to handle any form of natural disaster that affected campus life. Several of the participants who worked in the Emergency Management Department reported that several trainings, meetings, drills, and preparedness planning improved the credibility and execution of the universities' EOPs.

The researcher contacted the participants to provide a summary of the significant statements that were extracted from the individual interviews. A total of six participants responded to statements sent via email to validate their responses to the interview questions. A total of five of the six participants agreed that their statements were appropriate for what they intended to convey during the interviews and according to their experiences during the response and recovery of a hurricane-related event affecting campus operations. Since the interview process, one of the participants resigned from the university and resumed a role in the private sector. While the researcher attempted to contact via phone contact, a follow-up response was not received by the researcher.

#### Transferability

Purposive sampling was used during the research study and the Emergency Management Managers provided recommendations for suitable participants to be interviewed for the research study. The researcher initially reached out to the universities via the Emergency Management Departments. Due to a minimal response rate, the researcher contacted the IRB for each participating university to seek IRB approval. Once IRB approval was secured, the researcher reached out to the Emergency Management Departments a second time in order to build relationships and establish a rapport in order to complete the research study (Creswell, 2009). At each participating university, the Emergency Managers completed an informal introduction of the research study to members of the Emergency Operations Task Force, which is compiled of various faculty and staff members from various departments within the university. The members of the Emergency Operations Task (EOT) Force were recommended by the Emergency Managers and willing participants in the research study.

#### Dependability

The researcher used Colaizzi's data analysis method (1978) to complete an exhaustive review of the transcription notes and analytic memos to ensure the researcher captured what the participants wanted to portray in their responses to the interview questions. The transcription notes were reviewed and re-reviewed in order to clearly understand the phenomenon of the research study (Kr, 2021).

## Confirmability

Once the transcription notes from the participant interviews were completed, the researcher contacted the participants to present their significant statements for review. The researcher also used descriptive notes to provide key information relative to activities that occurred during the research study (Rativch & Carl, 2016). A total of five participants responded to the follow-up conversation and verified that the statements conveyed during the interview line up with what they wanted to express during the research study (Colaizzi, 1978; Kr, 2021). One of the participants could not be contacted as they have left the university since the research study began. A total of four participants did not provide a response to the follow-up conversation.

#### Results

This research study aimed to improve the understanding of the emergency operations task force roles and experiences once the campus re-opened to assess, repair, and clean up during the recovery phase in the wake of a hurricane-related event. The experiences of campus leadership relative to hurricane-related events have evolved since Hurricane Katrina in 2005 and Hurricane Dorian in 2019. Institutes of Higher Learning (IHLs) have worked hard to improve their EOPs over the years. Interestingly so, many IHLs in coastal areas have learned how to juggle preparedness, response, and recovery efforts relative to natural disasters and pandemic outbreaks.

The research study consisted of interviews with 10 participants and review of the university's EOPs. Each participant gave a unique description of their experiences prior to and after a hurricane-related event. While the participants gave different responses,

there was a similarity in describing the members of campus leadership. The participants described the campus leadership involves faculty, staff and volunteers who have been designated to serve as members of the university emergency management task force and/or first responders. According to emergency management leaders, each department has representation on the emergency preparedness task force, which is an integral part of the planning and preparedness efforts as well as the execution of response and recovery efforts during a hurricane-related event.

In reviewing the universities' emergency operations plans (EOP), university #1 has a very detailed plan reporting the responsibilities of each department before, during, and after a hurricane-related event. The EOP gave a description of the role of the campus health center in the event of a hurricane. The EOP stated the following roles of the campus health center: assist with setting up a first-aid booth, ensure that students had access to needed medications, and evacuate the campus within 24 hours of a hurricane hitting landfall. The EOP also indicated that the campus health center will not be on campus during a hurricane and has no assigned responsibilities during the recovery phase. The EOP states that the campus health center will resume operations once faculty and staff are granted access to the campus.

This descriptive phenomenological study aimed to explore the experiences of campus leadership who have been identified as first responders in preparation for hurricane-related events at a college or university in the southeastern United States. It was also important to gain a better understanding of campus leadership roles, responsibilities, and interactions once faculty and staff returned to the university and resumed their respective roles during the recovery phase of a hurricane-related event. The following research questions provided direction for the course of the study:

(RQ 1): What are the experiences of campus leadership who have been involved in hurricane response and recovery efforts that have interrupted campus life and operations?

(RQ 2): What is the emotional impact of designated campus leadership who have responded to a hurricane-related event as a part of emergency response and recovery efforts?

## **Research Question 1**

Relative to research question #1, several participants gave their accounts of the response and recovery events after Hurricane Florence in 2018 and Hurricane Dorian in 2019. While not all of the participants gave specific examples, some of them answered as follows:

Participant #2: "We had a bunch of trees down on campus, and wind damage of that nature. And, we were short on staff. We were short on staff and, for the most part, it was difficult to try to get things accomplished.

The first event (Florence), it felt like...it was no way to succeed. It was gonna be difficult 'cause like I said, lack of staff, lack of equipment. It felt like, you know, I don't wanna say set up for failure, but it felt like we were not gonna be able to get the job done (effectively).

Participant #3: We experienced a lot of flooding (during Dorian), but my staff were prepared. My staff is prepared because my staff are considered essential employees. During recovery, we not only monitoring things that are going on the campus, we have to monitor everything that is going on in the city as a whole.

Participant #3: Having two small children at that time, I was able to get them out of the area. I had a family member that lived on the western side of the state where I either made arrangements to send my children there or I may have made arrangements to get my children out of state to other family members.

Participant #4: What we ran into with Florence is we did not have the resources. We had evacuated everyone and everyone scattered. So, when it came time to start reconstituting campus, and we realized that the damage wasn't as great as we thought it would be, which would cause us to have to pretty much abandon campus for months, instead of being able to try to, we had trouble getting our personnel back.

Participant #5: The faculty were unable to really access their equipment, files and everything until things were restored. Faculty and academic affairs didn't have access to needed software in order to teach and support the students.

So, it's really hard to get them to buy into some of the preparedness measures prior to Florence. After Florence, after they lost their research and whatnot, their participation and emergency planning has increased. But prior to them actually experiencing loss of their own research, they didn't really pay much attention to emergency management.

So, we really should have tossed the plan aside and came up with an ad hoc plan based on the resources we had. So that threw us a loop until we actually got the resources that we needed from contractors in lieu of our own staff. So once that happened, we were able to re-engage.

And then when we lost a major building and had flooding conditions inside there, their artifacts and research was ruined and pretty much had to start anew...with Dorian, we did a lot better, things were a lot smoother. We did not have as much damage partially because the mitigation activities helped with the campus roofs and building back stronger. So, we didn't experience nearly as much damage and coordination went smoother.

Participant #5: I think we were all taken a little off guard with Florence. We were all mentally preparing to be hit very, very hard and then we were hit hard, but in a different way expected. I think there, I'm not sure how you could have better mentally prepared for it. It was just a really bad storm, and to me it proved that you can prepare as much as you want, and yet you're still going to be taken aback because it's nature and you can't always have the answers. We worked out a month with that event...with Florence in particular, you thought it was going to hit as a level four. It doesn't hit as a four. Everyone has great relief, but then it dumps two days of rain and caused tremendous flooding and damage. I'm not sure you could have done anything to avoid it. I think we're very lucky. I think that everyone was very responsive, again, because we thought it was going to be a four and got preparation out of the way.

It was a hurricane and tremendous flooding...I reached out to other deans at other universities to get information about what they did and I just followed what one did and I reached out to students and they were very clear, students want to hear from you. One of the things that stands out for me about that hurricane in particular (Florence), we had faculty and staff who lost their homes. We had students who lived on campus who lost a lot of stuff. And because we had never had such a tremendous event previously, there weren't necessarily things in place. Fortunately, though they seemed to weather the storm okay. There was some damage, which luckily we got some funding from the federal funding to do some of the repairs and take care of that flooding which was nice.

Participant #6: There were like tornado warnings in the area as well, but that was different. But yeah, there's a hurricane, the hurricane from last year (2021) and then the tornadoes during the year before that (2020)...Prepared our own areas, uh, to do what we could to make sure that in case there was flooding or any kind of damage to the roof that it would minimize the damage. There's only so much we could do...we have procedures here for, you know, in case there's gonna be an event like that for what we have to do to make sure that the doors are properly covered and, you know, electronics aren't gonna, if there's any flooding the stuff won't get damaged like that....we have some rare collections as well, special collections that we have to take care of as well. Um, well I think the situation with natural disasters, especially in this particular area of the state and the country, I mean it's only, it's not going to get any better. Uh, we're almost right on the coast here...the waterfront is literally like a couple hundred meters away from where I'm sitting right now.

Participant #7: So many storms (effected the campus). The most recent I think it flooded twice. I know there were smaller ones.

One of the things that was hard to try and manage was that I have a toddler. The biggest event was during Florence, I was pregnant with said toddler. During Florence, we actually had damage that we had to respond to. It was difficult. I had to evacuate for two weeks from the area and when I got back, management expected me to be pregnant and in damaged buildings....we had folks here who had full hazmat suits on removing furniture and I was expected to be in there with just a mask and I was pregnant and there was black mold.

Where we live, we had significant damage too. Huge trees down, we couldn't pull into our driveway and I was not able to take that time to get my life together at home before returning to work because of the supervisor I had at the time. Two of my coworkers actually did get mold poisoning and so when that happened, I was like, "I'm not going into these buildings, period.

Participant #8: We actually evacuated our campus during the hurricane. I was one of the first five people back on campus and we had to do building evaluations, all 100+ buildings we have. Inside and outside, we had to coordinate with police and Emergency Management, get a hold of contractors, trying to figure out what's wrong, how do we fix it and how quickly we can get the campus back open so that we can do the main goal of the campus, which is to educate students.

Participant #9: We put the equipment on campus ahead of time. So, we had generators and fuel and vehicles. We had that all staged in our parking decks. We had contractors come to campus ahead of time and place drawing out equipment and other things. So, we had as many resources as we could ahead of time. We thought it was going to be Category 4 when it came on, it turned out to be a high one.

We lost the roof off of one of our science buildings. That was a total loss. And so just trying to do the hazardous cleanup and all that was probably the biggest thing. We just couldn't get people here and our contractors couldn't even get to the area. Participant #10: After the hurricane, one of the biggest issues that we always have is the tree limbs down, the tree is down, flooding. And, so facilities management is first on-site, taking care of that.

### **Research Question 2**

In reference to research question #2, the participants expressed how the hurricanerelated events affected their emotional well-being. One participant (#7) expressed their emotional and mental stability during and after experiencing two hurricanes (Florence and Dorian). Some participants expressed how the hurricane related-events were affected during recovery efforts on campus, and some didn't provide any feedback at all as it relates to the research question. Some examples of the participants' statements are listed below:

Participant #2: For me, trying to keep morale up with the staff, that's what I spent a lot of my time trying to keep morale up, you know, like I say, at first, when it felt like we were all to ourselves, you gotta keep morale up pretty good.

Participant #3: Just making sure that, number one, we're sensitive to our own needs, making sure that if there are times where we need breaks or need to remove ourself, that we do that.
Participant #5: While it was disruptive, everything about that storm took a mental health toll after the fact, I think with what we got, we were lucky.

Participant #6: Um, I was a little apprehensive. I mean, we are right on the coast here, and this campus is, until pretty recently, there had been a lot of maintenance issues on the campus. So I was kinda worried that our (building) here might suffer a lot of damage. We did have some minor water damage, but luckily nothing major. Um, so yeah I was definitely, you know (worried).

When they shut down the campus, I actually traveled out of town to stay with some relatives for a few days...it worked out well, but I was honestly a little worried it might not be much of a campus to come back to.

Participant #7: I'm very transparent with my staff in that I want them to be vulnerable with me and not feel like they can't come and speak with me. So, I'm very thankful that they do that. So, we sit down and talked about it. We put it out there. It might be standing outside under a tree and me saying like, What's up? I can see something wrong, and them saying like, I know that you know, but I'm so frustrated. People are emailing me about an event and I'm sitting here cleaning up water. So, we talk about it, we get it out.

## **Discrepant and/or Nonconforming Cases**

As the researcher completed the data collection and analysis, there were a few participant responses that did not fit into the three emerging themes or subthemes identified during the data analysis (see Ravitch & Carl, 2016).

During the data analysis, it was noted that three participants chose to discuss the most recent snowstorm that affected the university and how the emergency operations task force handled the storm. The responses had to be eliminated from the data analysis as the responses did not fall under one of the three themes for the research study.

During the initial interviews, two participants required additional follow-up questions and conversations in order to retrieve answers to one of the interview questions.

It is important to mention that during the double-checking phase to improve the validity of the participants' responses, one participant chose to withdraw their feedback from the research study. One participant reported they felt increasing discomfort in their responses being entered into the data analysis and findings. Upon respect for the participant, the responses were withdrawn from the findings and results.

#### **Theory of Planned Behavior**

TPB assumes that humans react to adverse events relative to the intention to perform a specific behavior. There are three factors that influence a person's behavior: Attitude, subjective norm, and perceived behavior control (Azjen, 2002). Attitudes of campus first responders can affect the students, faculty, and staff intentions to appropriately prepare for a natural disaster. Favorable or unfavorable attitudes toward hurricane-related events will affect a person's preparedness, which could potentially influence the response and recovery efforts within the university setting. For example, participants stated the following during individual interviews: Participant #9: During Hurricane Florence, we lived on campus, had to be here to support the university, and so it's an adrenaline-filled time and, I don't know, there's not a lot of time to deal with emotion during a tragic event like that.

Participant #1: So, there's always ill feelings over the fact that we should have been better informed, we should have known that we're gonna close earlier or all these things, we should have had more advanced notice and all these things. So, a lot of times people will be ill. Then, once they get over that initial shock, it usually wears off....and then they feel better about what's actually going on and what they're doing. So, you kind of go through that role of emotion.

Secondly, the subjective norm is based on campus first responders' behaviors based on social influence or pressure (Ajzen, 2002). Campus leadership can influence the behaviors of the campus first responders whether positive or negative. The emergency operations task force can also influence the behaviors of their subordinates and/or be influenced by executive leadership which can in turn affect the preparedness, response and recovery efforts of a hurricane-related event. It is the expectation of campus leadership to remain calm, focused and lead by example during adverse events. It is also the responsibility of the task force members to keep their subordinates focused on maintaining a calm demeanor during the response and recovery events on campus. Participant #7 stated the following relative to social influence:

So, I talk to my staff about how we can address our feelings. I'll take that and maybe a couple hours later I like to send (a message) like, "Hey, I know today was tough

and we've got the weight of feeling like our peers are not supporting us in the division. You all are great. I support you. If there's anything I can do, let me know".

Perceived behavior control references the campus first responders' belief that they can achieve a specific behavior and possess strong behavior control which can lead to improved outcomes. The more strongly the designated staff feel they have control over their behaviors, the more likely they are able to execute their intentions (Ajzen, 2002). It is also the perception of ease or difficulty in maintaining behaviors that will enable the campus first responders the ability to execute response and recovery activities. Several participants gave their accounts of exercising perceived behavior control during a hurricane-related event:

Participant #10: You have to make sure that you are properly prepared, because if you're not properly prepared, if you're not feeling well, if you're not 100%, then you're not gonna be able to help others as well as you need to.

Participant #2: Just keeping people focused, breaking, the tension...having a conversation, stopping work for a minute, and just having a conversation about anything other than work just to get their minds off of (the recovery) for a moment and then back at it...so just trying to keep everyone as loose as possible...and another thing too, listening to the advice of the team members.

The research questions for this research study were as follows: a) What are the experiences of campus leadership who have been involved in hurricane response and recovery efforts that have interrupted campus life and operations, and b) What is the emotional impact of designated campus leadership who have responded to a hurricane-

related event as a part of emergency response and recovery efforts? To answer the research questions, the researcher completed semi-structured individual interviews with 10 participants from universities that are located on or near a coastline. The participant interviews consisted of 5 standard questions and follow-up questions that were asked during phone interviews with the participants. The interview questions will be listed in Appendix A. The participants shared that the most recent hurricane-related events that affected campus operations were Hurricane Florence and Hurricane Dorian. The researcher used Colaizzi's data analysis method (1978) to complete the data analysis and distribute the participants' responses under the following three emergent themes: Support, Relationships, and Challenges. While the participant responses were distributed amongst the three themes, the responses were also distributed as they fit according to the two research questions.

## **Defining Campus Leadership**

As the researcher interviewed the participants, each participant gave a unique description of campus leadership and the role of executive leadership during the response and recovery efforts. The participants gave similar but different responses in describing the members of campus leadership. Overall, the participants described that campus leadership involves designated persons from various departments to serve as members of the university emergency management task force and/or first responders. Many of the participants were members of the university's emergency operations task force and were chosen by the snowball sampling method.

During the interviews, the participants discussed support from campus leadership. A total of two of the ten participants identified the vice chancellor as the person in command of the emergency operations task force. The remaining eight participants reported that their leadership came from the Emergency Management Department staff. The researcher verified through the documentation review of the EOPs that the vice chancellor is the commander-in-chief of the emergency operations task force.

Chapter IV provided an overview of the participants responses to the interview questions that were influenced by the research questions for the research study. The participants discussed their knowledge of the roles of emergency management, campus health center, facilities management, campus security, and residence life departments in the event of a hurricane-related event. All of the participants gave their accounts of the support felt by campus leadership and the emergency operations task force. A total of eight out of 10 participants felt supported by campus leadership with room for improvement. One of the participants identified the support of community leaders as the American Red Cross and local government. Another participant mentioned receiving support from local churches, community organizations and Emergency Weather Service (EWS).

As it relates to relationships, the participants felt there was some division between faculty and staff which created "silos" on campus. Some of the participants felt that the university was actively working on improving silos between the two groups, however, it did not affect the task force team members working together. A total of three participants reported that lack of understanding of the roles of emergency operations task force during hurricanes contributed to silos between faculty and staff members. Interestingly so, there were a total of two participants that felt that support from campus leadership was limited and needed the most improvement.

In the area of challenges, several participants reported that the biggest challenge was not having enough volunteers to assist with recovery efforts with the universities. It was also interesting to learn that two participants felt that challenges exist with the need to provide international, off-campus students and students who aren't able to evacuate the campus with additional supports. Lastly, there were several responses amongst a portion of the respondents that challenges continue to center around ensuring roles of staff are connected to departments and not individuals. To provide further verification of the need to identify roles, the documentation review of EOPs required that department managers and task force members update their staff rosters monthly to ensure that there is an appropriate headcount during the response and recovery stages of a hurricane-related event.

Relative to mitigation and preparedness, the participants shared that they felt prepared for a hurricane-related event and believed they had the resources needed to protect the students, faculty and staff in the event of a hurricane-related event. Many of the participants felt that you can never be too prepared for a hurricane, as you don't what you will get and what category the storm could be, therefore, you prepare for the worst and hope for the best. As it relates to mitigation, one participant stated that glass buildings are not the most conducive on a university campus that has natural disasters. In addition, several participants stated that roles must be clearly defined in order to aid in faster clean-up during the recovery phase.

# Summary

Chapter IV provided an overview of the analyses derived from the generated themes and findings from participant interviews, university and collected documents for the research study. There were three themes that emerged from the data analyses that addressed the research questions and continued to guide the research study.

Chapter V will provide an overview of the following: an interpretation of the findings, limitations of the study, recommendations for further research, implications to include social change and theoretical areas and key essence of the study.

Chapter 5: Discussion, Conclusions, and Recommendations

## Introduction

The purpose of this qualitative descriptive phenomenological research study was to gauge the experiences of faculty and staff members identified as members of the emergency management task force relative to their involvement in hurricane-related events with their universities. With this study, I aimed to improve the understanding of campus leadership roles and experiences in relation to returning to campus and resuming duties in the wake of a hurricane-related event. Chapter 5 includes an interpretation of the findings, limitations of the study, recommendations for further research, implications for social change and theoretical areas, and the key essence of the study.

The faculty and staff participants were employed at universities within the southeastern United States and the campuses are located within close proximity to the Atlantic Ocean. I conducted semistructured interviews with 10 participants at several universities in the southeastern United States. I used snowball sampling to recruit participants from university partners. During interviews, participants described the weather conditions during Hurricane Florence in 2018 and Hurricane Dorian iin 2019, which consisted of fallen tree limbs and power lines, high winds and wind damage to windows in many of the buildings, flooding of several buildings, and power outages.

Over the past 5 years, IHLs located in coastal areas have learned to juggle preparation, response, and recovery activities relative to hurricane season, a global pandemic, and other natural disasters that affect campus operations. All the participants gave a similar description of their definition of campus leadership as the faculty/staff representatives who have been designated to serve on the emergency operations task force. All the participants were members of the emergency operations task force and served as designated leaders within their various departments. Many of the participants served as campus first responders and department managers. The task force members receive rigorous, ongoing training on natural disaster preparedness.

This research study provides a better understanding of campus leadership roles and responsibilities as campus first responders. Relative to interactions and relationships, the participants verified there have been silos among various departments that have previously caused confusion regarding first responder responsibilities and have slowed response times. Nonetheless, various departments have improved relationships and departmental functions to improve response and recovery activities according to participants. During data analysis, I determined that the university chancellor and vice chancellor play a limited role in response and recovery decision making. The chancellor's office is responsible for submitting ongoing communication from the university's response to postrecovery activities. The emergency operations taskforce members are the primary decision makers in executing evacuations, class suspensions, and campus closings. Because the emergency operations taskforce members are primarily department managers and directors, other faculty/staff members are delegated various responsibilities during response and recovery activities. The emergency operations taskforce members, also known as campus first responders, are required to return to campus to initiate recovery activities and prepare the university campuses for reopening and resuming class schedules.

Relative to community partnerships, there is a continued need for improved relationships and an increase in sponsorships and collaborations to improve the planning, response, and recovery phases moving forward. Participants also verified that collaborations with nonprofit organizations, fellow disaster-resistant universities, faithbased organizations, and professional weather organizations would strengthen their support system. In addition, participants agreed that improving community collaborations and sponsorships would assist with improving shortages in staff and volunteers.

Participants also identified a need to incorporate the campus health center into the emergency operations taskforce and to assign specific roles for the center to assist with student, volunteer, and faculty/staff needs. There is also a need to incorporate counseling services on-site and mental health resources in collaboration with the campus health center. Participants reported that university faculty and staff access to counseling and mental health resources has the potential to strengthen the performance of the emergency task force, improve decision making strategies, provide a better sense of resiliency of the campus first responders, and improve results during response and recovery activities. In addition, campus leadership should provide continuous encouragement to boost morale and maintain unity among campus first responders, as they are compensated for any overtime recorded and tracked during response and recovery activities and submitted to human resources for processing without delay.

Participants verified that challenging areas continue, such as dealing with the COVID-19 pandemic in conjunction with being prepared for hurricane season. This is a

strain on university resources. Participants reported that university EOPs have significantly improved since a combination of natural disaster and infection control initiatives.

## **Interpretation of the Findings**

As the literature shows, mock drills and full-scale exercises are appropriate in ensuring that campuses are as ready as possible during the preparedness and mitigation phases of the emergency management cycle (Fillmore et al., 2011). In this study, participants indicated that the universities are prepared, but they were less confident in the university's preparation efforts during their first major encounter with Hurricane Florence in 2018. Participants also felt that Hurricane Dorian was handled much better as they had more experience and interventions in place for a hurricane-related event. Only one participant discussed details relative to the university's support and relationships with off-campus and international students.

I reviewed university disaster operations policies and the university partners in the research study mimicked their local county EOPs to ensure a streamlined process for voluntary, mandatory, and university closings in the event of a natural disaster. University policies indicated that students who are not able to evacuate will be required to contact the dean's office to coordinate alternative shelter options. The university partners provided minimal feedback relative to task force support for international and off-campus students, which reinforces previous research that less emphasis is placed on making sure designated staff are assigned to follow up with international and off-campus students as the university prepares for a hurricane-related event (Day, 2015; Fillmore,

2011; Tanner & Doberstein, 2015; Watson et al., 2011). Two participants discussed that students who did not have anywhere to go would be brought onto campus to remain in a designated area until the evacuation protocol was lifted. One of the participants discussed that the university would provide oversight, shelter activities, and meals through a hurricane-related event.

## **Theoretical Framework**

TPB indicated that the campus first responders reacted to adverse events relative to the intention to perform a specific behavior. The three factors influenced a person's behavior: Attitude, subjective norm, and perceived behavior control (Azjen, 2002). The participants indicated that their overall attitudes influenced the positive execution and an effective EOP during hurricane-related events. The participants reported they exhibited favorable attitudes and displayed positive, confident attitudes in executing response and recovery activities during Hurricanes Florence and Dorian. A majority of the participants also indicated that while the universities in the research study had not experienced more than two large-scale hurricane-related events, they were confident that they did their best and were successful in their execution of the emergency operations and evacuation plans.

The subjective norm was a result of the campus first responders' behaviors based on social influence or pressure (Ajzen, 2002). While two participants indicated not feeling supported by executive leadership to their liking, they reported continuing to maintain a positive demeanor to eliminate influencing their subordinates in taking a negative stance on response and recovery activities. The researcher could not determine if subordinates were influenced by the behaviors of their department leaders and/or representatives as the participants were managers and supervisors within their respective departments. The participants, also known as campus leaders, reported maintaining their focus and leading with confidence despite concerns and numerous challenges that influenced the response and recovery activities. The participants also discussed checking in with subordinates and ensuring they had support from their department leaders during post-recovery activities. Relative to perceived behavioral control, the participants discussed that they maintained a calming disposition and behavioral control as well as provided inspiration to staff and volunteers who were participating in hurricane recovery activities.

Perceived behavior control referenced the campus first responders' belief that they could achieve a specific behavior and possessed strong behavior control which would lead to improved outcomes (Ajzen, 2002). The participants reported they controlled their emotions and were focused during response and recovery activities. The participants also expressed a sense of accomplishment during the response and recovery activities due to maintaining a positive demeanor and providing encouraging words and ongoing motivation to their subordinates. Participants also believed they achieved strong behavior control and didn't have time to focus on their personal lives.

As it relates to the disaster phase model, the participants reported feeling confident that their university and emergency operations task force exceeded expectations relative to mitigation activities. According to the universities' EOPs, they mimicked the city/county disaster preparedness protocol and conducted at least one mock drill and/or full-scale exercise each semester. Relative to the preparedness phase, the participants felt less prepared during Hurricane Florence as they weren't sure what to expect. The participants also expressed that handling Hurricane Dorian was easier because they were better prepared. The participants expressed some challenges relative to the preparedness phase, mainly surrounding the need for more volunteers and commitment to assisting with recovery activities. They also reported that their greatest strength was financial support from the university, community organizations and various non-profit organizations. The participants expressed confidence in how their universities handled the response and recovery activities.

#### Limitations of the Study

During the research study, the university partners were actively involved in COVID-19 response protocol which delayed the start-up of individual interviews of the participant sample. The initial goal was to conduct in-person individual interviews with the participants with phone interviews being optional and based on the individual's preference. Due to COVID-19 safety protocol and safety concerns, the university partners and the researcher agreed that phone interviews would be the most appropriate during the current pandemic. The phone interviews remained anonymous as requested by the university partners, however, some of the participants reported feeling uncomfortable with the need to record the interviews. One of the ten participants later requested to withdraw their responses to the questions as the participant left the university and sought employment outside of the university. Another limitation during the study is the timing of the participant interviews. The 10 participants reported their last experience of hurricanerelated events were during Hurricane Florence in 2018 and Hurricane Dorian in 2019. The participant interviews were completed 4 years after Hurricane Dorian events on the university campuses. It is a possibility that participants may have forgotten key details of their experiences as well as omitted significant details relative to the emotional impact during the post-recovery efforts of the hurricane-related events. It is also a possibility that during the semi-structured interviews, the participants may have varied definitions of the challenges and successes of the response and recovery activities as these terms are subjective in nature and are defined based on the individual's perceptions of the hurricane-related events. The researcher could have added more follow-up questions relative to Hurricane Florence and Dorian once it was confirmed that the two hurricanes affected the campuses the most and caused the biggest impact on the emergency response plans.

This research study also did not address the personal impact and losses of the emergency management taskforce members [e.g. loss of homes, cars, property damage, etc.] as this may have influenced their performance during the post-recovery efforts on the university campus. It was anticipated that the participants would open to discussing the emotional impact of the hurricane-related event and they would also be open to discussing how their personal losses affected their performance as a campus first responder. As many of the participants discussed their roles as task force members and campus first responders, only two participants discussed how their personal circumstances affected their abilities to perform their duties once they returned to campus. The remaining participants did not discuss how being separated from their

families and workplace requirements to return to campus and participate in post-recovery activities affected their emotional health.

Another limitation to the study included university partners not allowing the researcher access to university archival data and disaster team task force minutes. It was anticipated that having access to these documents would have provided a university needs assessment and lessons learned from previous experiences. Another limitation during the study was the participants' unwillingness to discuss the emotional impact that the university response and recovery efforts had on their families and how it influences their performance. One participant shared that post-recovery efforts affected her emotional health as well as the need to implement counseling services to improve and protect the mental wellness of the workforce. One participant also discussed the effects that post-recovery efforts had on their family, however they would not provide specific details relative to their emotional health during disaster response and recovery activities.

#### Recommendations

The research study resulted in rich findings, and I earned a great deal of information relative to the experiences of campus leadership during hurricane-related events. One recommendation for future study is to identify what are the primary roles and responsibilities of campus health centers. It was interesting to discover in the findings that campus health centers played different roles on various campuses. Another recommendation for future research is to identify what current resources were currently available for campus leadership, faculty/staff, and students relative to counseling and mental health services throughout the school year. Also, further exploring if faculty/staff and campus leadership used the counseling resources to improve their emotional and mental health needs on a continuous basis. Another area to consider for future research is to further explore the experiences of the Social Work Department, Human Resources and Residence Life staff to include resident assistants during response and recovery activities.

It is important to mention that minimal feedback was provided to the researcher relative to the support emergency management task force members provided to international and off-campus students who did not have the resources to evacuate the local area and/or return home, which would be a great opportunity for future research. Exploring task force support to students who are identified as homeless, disabled or displaced and how evacuations would affect these special groups could potentially to the body of research and create additional research questions.

Another important factor to consider for future research is to further explore if executive leadership encourages faculty/staff to address their emotional health as a member of the emergency management task force. In addition, future research would be beneficial relative to specific departments such as social work, and human services departments. Also, more emphasis can be made to incorporate additional faculty/staff working in laboratories and research departments into the participant sample to gauge their experiences during response and recovery efforts.

## Implications

Relative to promoting social change, a total of nine out of ten participants expressed feeling confident that they were knowledgeable and confident in knowing what needs to be done as a campus first responder during a hurricane-related event. The participants also expressed feeling a sense of security and confidence that campus leadership provided them with the resources needed to succeed during response and postrecovery events. One participant discussed how the university was taking a stance in opening their campus for the community volunteers and families who would not have been able to evacuate from the local area to a safer place during the hurricane-related events that affected the local area. A second participant discussed that it is important to broaden their relationships with the local community organizations and surrounding communities and to serve as a shelter location for surrounding neighborhoods. A third participant discussed that the university and emergency preparedness task force has a good working relationship with the Emergency Weather Service (EWS) and National Oceanic and Atmospheric Association (NOAA) from a sister state. A fourth participant discussed having a good relationship with a university that has more experience in addressing hurricane-related events as well as a working relationship with faith-based organizations in the local area.

All participants discussed the universities' partnerships with the American Red Cross. A total of one of the participants discussed having a partnership with local faithbased organizations and community organizations. A total of one participant also discussed A second participant discussed that it is important to broaden their relationships with the local community organizations and surrounding communities. Another participant discussed that their university and emergency preparedness task force has a good working relationship with the Emergency Weather Service (EWS) and National Oceanic and Atmospheric Association (NOAA) from a sister state. One participant discussed having a good relationship with a university that has more experience in addressing hurricane-related events as well as a working relationship with faith-based organizations in the local area. Having ongoing relationships with community organizations, non-profit organizations, etc. will increase the opportunities for volunteers and teach surrounding communities to be better prepared for hurricane season.

#### **Summary**

The safety of staff and students in universities is of utmost importance during hurricanes, and it is imperative to take necessary precautions to mitigate potential risks. A well-crafted emergency response system, including evacuation plans, emergency supplies, a strong volunteer base and effective communication, is crucial to ensure everyone's safety and security during a hurricane-related event. The well-being of higher education educators, staff and campus first responders is imperative to ensuring and executing a strong EOP during hurricane-related events. Hurricane vulnerable universities have the responsibility of supporting students, volunteers, and visitors but it is not as effective if the campus first responders have emotional challenges. It is equally important that campus first responders, also known as emergency management task force members, feel they have the support of executive leadership and the local community, resources from the university and community organizations as well as acknowledging and addressing challenges in order to strengthen the university's emergency management structure. It is more complicated for campus first responders to support students and surrounding communities if they don't feel supported. The emotional health of the campus first responders should be strengthened in order to support subordinates,

volunteers and students through the response and recovery activities of a hurricanerelated event.

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## Appendix A: Interview Protocol and Questions

Good afternoon/evening,

My name is Clarissa Henry, and I am a doctoral student at Walden University. I appreciate your willingness to participate in this interview. The purpose of this interview is to gather your perceptions of being involved in the planning, response, and recovery of a hurricane-related event while employed with the University. This interview will last no more than 60 minutes in length. There are no right or wrong answers and I want you to be comfortable in saying what you really think and feel without judgement.

I will be using an audio device to record our conversation. The purpose of using the recording device is so that I may be able to be attentive during our conversation as well as get all of the details of the interview. Please be assured that your name and comments will remain confidential throughout this research study. I will compile a report of your responses and will not reference your name or any identifiable information.

I am going to start by asking you a few questions regarding your employment, as well as roles and responsibilities at the University. I will be sharing your interview results anonymously and will not reference your name or any identifying information. You can ask questions at any time and can end this interview without delay. Thanks so much for dedicating your time to this research project. Do you have any questions thus far? Let's continue...

What your primary occupation and/or roles at the university?

How would you describe your experience as a faculty or staff at your college or university?

What are your other responsibilities on campus that have not been mentioned? How would you describe the campus leadership\* since you have been employed at the college or university?

What are your thoughts of the relationships between faculty, staff, and campus leadership\* at the university?

The next set of questions are directly related to events as a result of the most recent hurricane-related event [e.g. wind damage, tornado, flooding, hurricane] you have experienced. You have the right to ask me any questions as we continue with the interview. You are also entitled to stop the interview at any time or discuss any feelings or thoughts you have during this interview process. Tell me about the following:

What were your thoughts regarding what you observed and experienced during a hurricane-related event?

What feelings/emotions did you have during this time?

How did you handle the feelings that surfaced?

How did you contribute to the response and recovery efforts during the hurricanerelated event?

What role did you play to ensure the safety of the students?

What steps did you take to handle your personal responsibilities?

What role did the campus community health center play in the response and

recovery efforts during and after the hurricane-related event?

Security staff?

Administration and University officials?

**Residential Services staff?** 

Facilities staff?

What resources did you have access to during the recovery phase after the hurricane-related event [damaged buildings, tore down trees, flooding., etc.]? What resources did you use?

What resources did you not have access to but felt were needed? What were the advantages and/or disadvantages during the hurricane disaster planning stage?

During the response stage?

During the recovery stage?

Do you have anything else to add that was not mentioned in the previous questions?

Thank you so much for your open and honest feedback during this interview. Your time and feedback is important regarding this research study. Once I have compiled a report of your feedback, upon your permission I will contact you for a follow-up call to discuss the results. I will also offer you the opportunity to review the results to ensure accuracy of the information. You are not obligated to participate in any additional calls and can decline a follow-up call if you choose to do so.

\*Campus leadership is referred to any faculty, staff, resident assistant, and/or volunteer that serves on the designated disaster leadership team with the college or university.

You might wish to retain this consent form for your records. You may ask the researcher or Walden University for a copy at any time using the contact info above.

# **Obtaining Your Consent**

If you feel you understand the study and wish to volunteer, please indicate your consent by replying to this email stating "I consent".

## Appendix B: Participant Introduction Letter

Good Afternoon,

I am kindly requesting your participation in a doctoral research project that I am conducting that involves gathering responses in how the university responds to and prepares for a hurricane-related event. My name is Clarissa Henry, and I am a doctoral student at Walden University. Your name was provided to me by your university's Emergency Management Manager, XXX. I appreciate your willingness to participate in this confidential phone interview.

The intention is to assess your experiences of being involved in the planning, response, and recovery of a hurricane-related event while employed with your University. This interview will last no more than 35 minutes in length unless you have additional questions. There are no right or wrong answers and I want you to be comfortable in saying what you really think and feel without judgement.

I will be using an audio device to record our conversation. The purpose of using the recording device is so that I may be able to be attentive during our conversation as well as get all of the details of the interview. Please be assured that your comments will remain confidential throughout this research study. I will compile a report of your responses and will not reference your name or any identifiable information. You can ask questions at any time and can end this interview without delay. Thanks so much for dedicating your time to this research project.

Your participation in this interview is completely voluntary and you may withdraw from the study at any time. If you would like to participate in the interview, please email me to discuss available times and/or dates to complete your interview. Once we have secured a date and time for the interview, you will receive an informed consent via email. To begin the study, please contact me at XXXXXXXXX.

## Appendix C: Confirmation From System Representative

**From:** UNC Office of Emergency Management and Planning **To:** C. Henry **Subject:** RE: UNC Hazard Mitigation Plan

Good Morning Clarissa,

Thank you for your interest in utilizing our plans for your academic research. The public version of the <u>UNC Eastern Campuses Regional Hazard Mitigation Plan</u> is available online. If we can be of any assistance please feel free to reach out. I am the contact for OEMP's Hazard Mitigation program. Additionally, we value research and exploration on the topic of hazard mitigation and appreciate sharing the outcomes of your research to help us improve our processes in the future.

Best of luck with your research!