A PLANNING MODEL FOR DISASTER RELIEF AGENCIES

by

LAJUANA JANICE HECTOR

Presented to the Faculty of the Graduate School of

The University of Texas at Arlington in Partial Fulfillment

of the Requirements

for the Degree of

DOCTOR OF PHILOSOPHY

THE UNIVERSITY OF TEXAS AT ARLINGTON

December 2010

Copyright © by LaJuana Janice Hector 2010

All Rights Reserved

ACKNOWLEDGEMENTS

I would like to thank Dr. Joan Rycraft for serving as both my advisor and dissertation committee chairperson. I appreciate your enduring patience, consistent support, and insightful instruction- I am truly grateful for everything that you have done for me. I would also like to thank my dissertation committee members- Dr. Doreen Elliott, Dr. Sung Seek Moon, Dr. Regina Aguirre, and Dr. Jianling Li for providing continuous encouragement, kind words, and gentle nudging- your diligence and consideration in helping to achieve my dream has made a tremendous impact upon me and I will be forever grateful. I honestly believe that I am a better researcher because of your direction. I would like to give special consideration to those that rendered words of wisdom and reassurance- thank you Dr. Vijayan Pillai, Dr. Debra Woody, and Dr. Rick Hoefer for demonstrating excellence in both teaching and mentoring capacities. You have given me the ability to say “I remember that I once had a professor who said something that really helped me, and it might help you too…”

During my two years as a student of the Social Work Doctoral Program, as a full time employee at an international nonprofit agency, I was responsible for developing a disaster relief service for hurricane Katrina victims that sought assistance in North Texas. I went to Dr. Maria Scannapieco and told her what I was charged to do. Without hesitation, she said to me “Start reading…you have a unique opportunity to put together an empirically driven service…you need to spend time reading about the needs of disaster victims, and how disaster relief programs work”. And so what began as an attempt to merge together practice and research, led into a passionate quest- thank you Dr. Scannapieco for instructing me to do something so simple yet so influential.

To my mentor Don Morgan…you projected this journey upon me when I first graduated with my Bachelor's degree in Social Work so many years ago- thank you for seeing beyond my limitations and helping me focus upon my capabilities. I would also like to thank Dr. Muammer Cetingok, Uncle Reggie, Uncle Willie, Brad, Amy, Heidi, Tammy, Randy, Jeannette, Brian, Michael, and Danisha for your attentiveness and concern- I can only hope that I have the opportunity to give someone else what you have given to me. To my one and only Sunshine, I can only echo the words of King Leonidas from the movie 300 by saying to you that finally "We're in for one wild night". To the victims of hurricane Katrina and the disaster relief agencies that participated in my research- thank you for helping nurture my passion and sharing your trials and triumphs to help develop the best laid plans…

For my parents, Audrey and Darrell Hector, there are no words that I can write to express the gratitude that I feel for you both. After the surgeries, car accidents, and allergic reactions, not to mention the late night pep talks and endless editing email attachments, we are here. You both have been the loudest cheerleaders for me during the high points and the biggest shoulders for me to cry on when things got rough- thank you so very much. To my son Julian- let this accomplishment serve as an example of what can be achieve if you don't give up- you are capable of surpassing what I only hoped to grab a little of…"You're the best yo"! To my Cocker Spaniel Murphy (aka "Mommas Love")- thanks for giving me the experience of unconditional attention during those round-the-clock study to work days. We may have rescued you from the pound first, but it was you that rescued me with immeasurable love and devotion. To my Lord and Savior Jesus Christ, I am so grateful for my life and the path you designed for me before I was born. My mother once told me that as an infant, a church elder prophesized my future and told her that I would "help a lot of people". Throughout my life, career histories, and current endeavors, I can see how that has unfolded and am excited at what lies ahead. Thank you Lord for Your love, protection, and everyone that You have placed and will place in my life- all things truly are possible through You.

October 25, 2010

ABSTRACT

A PLANNING MODEL FOR DISASTER RELIEF AGENCIES

LaJuana Janice Hector, PhD

The University of Texas at Arlington, 2010

Supervising Professor: Joan Rycraft

Rather than identify nongovernmental organizations (NGO) with traditional service delivery systems, NGOs should be viewed as a unique system with specific outcomes pertinent to resource distribution. Grounded theory was used to help design the research methodology and General Systems Theory (GST) served as the theoretical framework. Predisaster planning, training, and leadership results from the empirical research helped to identify perspectives of resource distribution. Open ended interview responses were analyzed using the open coding, content analysis, constant comparison methods which yielded management as the theme with coordination, communication, and preparation as sub-themes. While each outcome may be contingent upon each designated organization and individualized for each natural disaster, a model designed for NGOs can serve as a template for more efficient resource delivery to disaster victims.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS iii

ABSTRACT v

LIST OF ILLUSTRATIONS x

LIST OF TABLES xi

LIST OF ACRONYMS xii

Chapter Page

1. A PLANNING MODEL 1

1.1 Introduction 1

1.2 Natural Disasters 2

1.1.1 Hurricanes 2

1.2.2 Hurricane Katrina 3

1.3 Federal Emergency Management Agency (FEMA) 4

1.3.1 FEMA's Response and Recovery Roles 5

1.3.2 Response and Recovery Analysis 8

1.4 Gaps in Coordination 9

1.4.1 NGOs 10

1.5 Proposed Change 12

2. FACTORS OF SIGNIFICANCE: A LITERATURE REVIEW 14

2.1 Existing Models 14

2.1.1 Department of Homeland Security's Model 15

2.1.2 A Financial Allocation Model 16

2.1.3 The Buckinghamshire Model 17

2.2 Predisaster Planning 18

2.2.1 Planning in Los Angeles and Mexico City 18

2.2.2 Systems Perspective to Planning 19
2.2.3 A Call for Flexibility 20
2.2.4 A Meta-Analysis 20
2.3 Training 21
2.3.1 Professional Programs 21
2.3.2 The Federal Curriculum 21
2.3.3 Leadership 22
2.3.4 Flexibility 23
2.4 Knowledge Gaps 23
2.4.1 Incorporating Social Work Practices 24
2.4.2 Culturally Diverse and Vulnerable Populations 25
2.5 Summary 25
3. THEORETICAL ANALYSIS 27
3.1 General Systems Theory Deconstruction 27
3.1.1 Theory Functions 27
3.1.2 Theoretical Underpinnings and Philosophical Components 29
3.1.3 Comparisons of Theories 30
3.1.4 Strengths and Weaknesses 31
3.1.5 Implications 32
4. METHODOLOGY 34
4.1 Qualitative Research Methods 34
4.1.1 Selection of Site and Participating Agencies 35
4.1.2 Data Collection 37
4.1.3 Data Analysis Techniques 38
4.1.4 Ethical Considerations with Human Subjects 38
5. STUDY OUTCOMES 43
5.1 Presentation of FIndings 43
5.1.1 Data Analysis 44

5.1.2 Preparing the Data 45
5.1.3 Content Analysis 45
5.1.4 Study Results 47
5.1.5 Study Question One 47
5.1.6 Study Question Two 49
6. OUTCOME CORRELATIONS 51
6.1 Explanation of Findings 51
6.1.1 Pre-planning 51
6.1.2 Training 52
6.1.3 Leadership 52
6.2 Conceptual Framework Link 52
6.3 The MURPHY Model 53
6.3.1 Logic Modeling 57
6.4 Implications 58
6.4.1 Practice Implications 58
6.4.2 Research Implications 59
6.4.3 Policy Implications 60
6.5 Limitations and Strengths 61
6.6 Conclusion 63
APPENDIX
A. DEPARTMENT OF HOMELAND SECURITY (DHS) PRIMARY DEPARTMENT NAMES 64
B. THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) PRIMARY DEPARTMENT NAMES 66
C. GUIDING QUESTIONS 68
D. APPROVED INFORMED CONSENT FORM (ENGLISH) 70
REFERENCES 72
BIOGRAPHICAL INFORMATION 77

LIST OF ILLUSTRATIONS

Figure Page

1.1 The Presidential disaster declaration process 5

3.1 Open Systems Loop 28

5.1 Data Preparation Process 47

6.1 The MURPHY Planning Model 57

6.2 Resource Delivery Logic Model 58

LIST OF TABLES

Table Page

5.1 Demographics of Participating Agencies 43

LIST OF ACRONYMS

ARC- American Red Cross

CMI- Crisis Management Institute

COR- Conservation of Resources

DHHS- Department of Health and Human Services

DHS- Department of Homeland Security

EOC- Emergency Operation Center

EMI- Emergency Management Institute

FEMA- Federal Emergency Management Agency

GST- General Systems Theory

IFRC- International Federation of Red Cross

IRB- Institutional Review Board

NFIP- National Flood Insurance Program

NGO- Non-governmental Organization

NIC- National Incident Command

NIMS- National Incident Management System

NRF- National Response Framework

NRP- National Response Plan

NVOAD- National Voluntary Organizations Active in Disaster

PDA- Preliminary Damage Assessment

TVOAD- Texas Voluntary Organizations Active in Disaster

TSA- The Salvation Army

UTA- University of Texas-Arlington

VOAD- Voluntary Organizations Active in Disaster

CHAPTER 1

A PLANNING MODEL

1.1 Introduction

Laws, models, and systems are applicable to determine how and by whom resources are disseminated to victims of disaster. There is a variety of foundation principles that are rooted within existing disaster relief models, policies, and the broad policies that govern the dissemination of disaster relief resources. There are consequences for the use of existing planning model implementation that appear in the form of a failure to plan, lapses of communication, and inconsistent coordination amongst non-governmental organizations (NGOs). One planning model that is driven by theory, empirical results, and study outcomes is needed for NGOs that offer resources to disaster victims more effectively and efficiently. From this viewpoint, program development, assessment, and evaluation are major aspects of the planning model for NGOs.

Chapter 1 of this research study conceptualizes natural disasters, provides historical insight to hurricanes and hurricane Katrina, and presents an overview of federal and community level disaster relief responsibilities and activities. Empirical research findings focused upon existing models, predisaster planning, training, and knowledge gaps are presented in Chapter 2. In Chapter 3, General Systems Theory (GST) is introduced, deconstructed, and presented as a theoretical foundation for disaster management. The methodology used in the study is included in Chapter 4, while the study findings and discussions of the findings are included in Chapter 5 and Chapter 6.

1.2 Natural Disasters

Natural disasters are common events in most countries and are increasing in number around the world. Along with the occurrence of the December 2004 Asian tsunami, which caused the deaths of “224,495 people … and caused around 90% of disaster deathsr” (International Federation of Red Cross [IFRC], 2005, p. 5), earthquakes in Turkey and famine in North Korea added to the number of deaths and effects felt worldwide due to natural disasters. According to research, “most disasters take place in large countries, with the U.S. (442) leading the list followed by India (293) and China (125)” (Neumayer & Plumper, 2007, p. 557). As there are various reasons for the increased occurrence of natural disasters, there are also diverse types. According to Benson and Clay (2004), natural disasters are “the occurrence of an abnormal or infrequent hazard that affects vulnerable communities or geographic areas, causing substantial damage, disruption, and perhaps casualties and leaving the affected communities unable to function normally” (p. 5). For purposes of this study, the following events are encompassed as natural disaster phenomena: earthquakes, floods, hurricanes, landslides, tornadoes, tsunamis, ice storms, blizzards, volcanoes, and wildfires. The response activities related to natural disasters were selected based upon their commonalities used by the U.S. Department of Homeland Security (DHS), the U.S. Federal Emergency Management Agency (FEMA), the Mitigation Act of 2000, the U.S. Department of Health and Human Services (DHHS), the American Red Cross (ARC), and varied municipalities executing disaster relief mitigation and response activities.

1.2.1 Hurricanes

The Atlantic hurricane season runs from June 1 to November 30. Though tropical systems can form at any time, September is generally the most active time of the year. The annual average number of storms for the tropical Atlantic area is about ten, with almost six of those becoming hurricanes. Two to three hese develop into major hurricanes (Category 3 or higher on the Saffir-Simpson scale). Based upon data collected from 1995 to 2003, hurricane seasons have become more active, with a seasonal average of 13 tropical storms, 8 hurricanes, and 4 major hurricanes.

A 2005 research study conducted at the Georgia Institute of Technology found that “the number of Category 4 and 5 hurricanes worldwide has nearly doubled over the past 35 years” (Hurricanes Getting Stronger, 2005, p. 1). Scientific research has shown that as the temperatures of ocean waters become warmer, the occurrence of a hurricane becomes more likely simply as a result of the combination of heat, water, and momentum. If “approximately 70.8 percent of the Earth is covered by water” (Windows, 2008, p. 2) and “13 of 17 major cities in the world that are located next to water are directly impacted by severe hurricanes” (National Hurricane Center, 2006), then an increase in the severity and number of hurricanes should be of concern. Whether hypothesized or factual, for the thousands of Americans who have been displaced by hurricanes such as Andrew, Frances, Rita, and Katrina, history is not only being made but, as time progresses, is becoming hard to ignore.

Damage estimates for the entire 2005 season totaled more than $100 billion. According to the National Hurricane Center (2005), records indicate the following:

1. Twenty-seven named storms formed during the 2005 season. This is the most named storms in a single season, breaking the old record of 21 set in 1933.

2. Fourteen hurricanes formed during the 2005 season. This is the most hurricanes in a single season, breaking the old record of 12 set in 1969.

3. Seven major hurricanes (Category 3 or higher on the Saffir-Simpson scale) formed during the 2005 season. This ties the season record for major hurricanes set in 1950.

4. Three Category 5 hurricanes formed during the 2005 season (Katrina, Rita, and Wilma). This is the most Category 5 hurricanes recorded in a single season, breaking the old record of two set back in 1960 and 1961 (p. 6–14, 2005).

1.2.2 Hurricane Katrina

In August 2005, a Category 1 hurricane hit the Florida coastline. The hurricane gained momentum and increased to Category 4 level as it ran along the Mississippi and Louisiana

coastlines. The result was a severe storm surge, wind damage, and failure of the levee system in New Orleans, Louisiana. Inland ripple effects of the hurricane were felt throughout Alabama, Mississippi, Florida, Tennessee, Kentucky, Indiana, Ohio, and Georgia, with the most dramatic activities occurring in Louisiana. This hurricane, Katrina, devastated thousands of lives and impacted hundreds of communities socially and economically.

1.3 Federal Emergency Management Agency (FEMA)

Disaster relief assistance in the United States goes back to the early 1800s, with legislation changing "more than 100 times in response to hurricanes, earthquakes, floods, and other natural disasters" (FEMA History, 2008, p. 1). The Mitigation Act of 2000 is an amended policy of disaster relief assistance that overrides the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, the first federal disaster relief policy. The Mitigation Act identifies specific support activities for state governments and U.S. citizens when disastrous situations exceed the resources available at the state or local government levels. The act establishes a process for requesting and obtaining a presidential disaster declaration, defines the categories for varied types of assistance available, identifies FEMA's role in disaster relief activities, and identifies the criteria and conditions for obtaining assistance.

Through a 1979 executive order issued by President Jimmy Carter, historically fragmented emergency services became the responsibility of a newly emerged agency known as FEMA. In 2003, a new organization chart reflected FEMA's move from operating as an independent entity to being one of 21 sub departments under the authority of the Department of Homeland Security (DHS). In 2005, President George W. Bush restructured FEMA, thus leaving the department with a more specific focus on response and recovery activities. While the Code of Federal Regulations, Title 44—Emergency Management and Assistance, Part 206 (1998), identifies FEMA response and recovery activities, the National Response Framework (NRF), which replaced the National Response Plan in 2008, serves as a guide for how all emergency responders should respond to disasters. The NRF states that FEMA does the following:

1. Describes how communities, tribes, states, the federal government, private-sectors, and nongovernmental partners work together to coordinate national response

2. Describes specific authorities and best practices for managing incidents
3. Builds upon the National Incident Management System (NIMS), which provides a consistent template for managing incidents (p 2, 2008)

1.3.1 FEMA's Response and Recovery Roles

The governor of a state affected by a disaster initiates the request component for FEMA to provide assistance. "All requests for a declaration by the President that a major disaster or emergency exists shall be made by the Governor [chief executive] of the affected State" (FEMA, 2006). The regional FEMA office receives and processes the governor's request, and then various officials of federal, state, and local agencies arrive at the disaster site to conduct a Preliminary Damage Assessment (PDA), which estimates the extent of the disaster and its potential impact on individuals and public facilities. The information gathered during the PDA documents the severity and magnitude of the disaster and is then included with the governor's request. Normally, the PDA is completed prior to the submission of the governor's request; however, when a severe or catastrophic disaster occurs, the governor's request may be submitted prior to the PDA's submission. Figure 1.1 identifies a visual diagram of the Presidential declaration process.

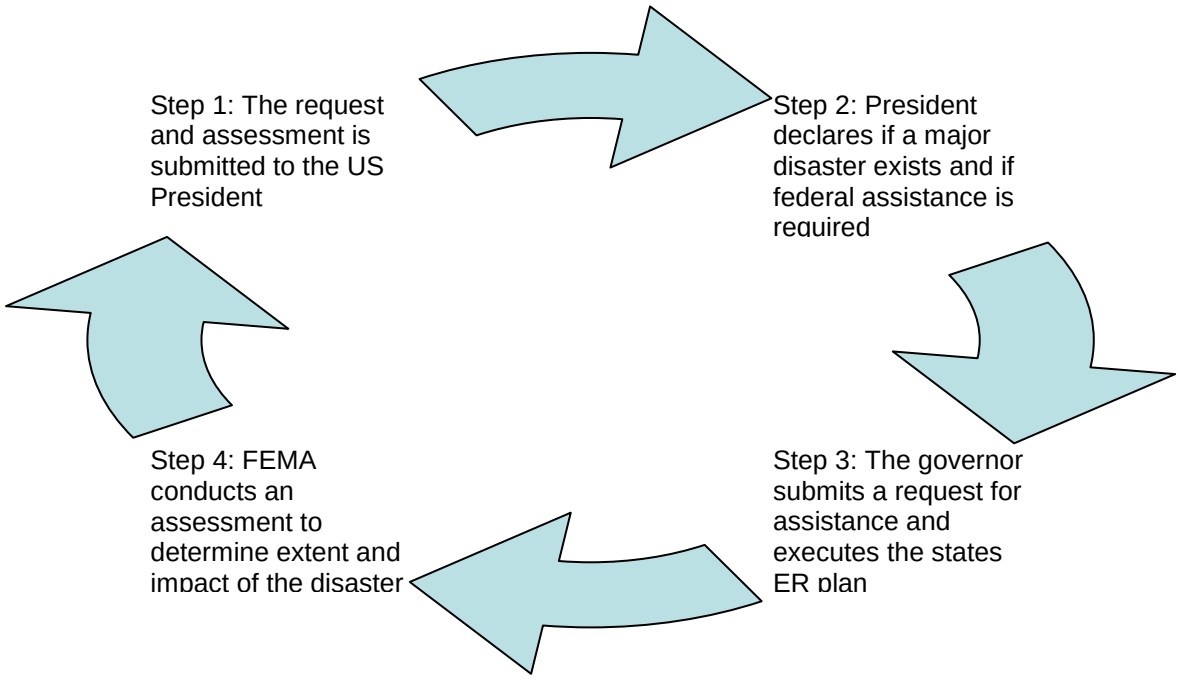


Figure 1.1. The Presidential disaster declaration process.

As part of the written request, the governor must include in the PDA a description of how the state implemented its own emergency plan, but when the situation is so severe that the response is beyond local resource capability, FEMA assistance is necessary. In such situations, the governor must follow the Disaster Process and Disaster Aid Programs process (FEMA, 2006):

> The Governor should include information on the nature and amount of state and local resources that have been or will be utilized to alleviate the results of the disaster, provide an estimate of the amount and severity of damage and the impact on the private and public sector. The assessment should also provide an estimate of the type and amount of assistance needed under the Stafford Act. (p. 3)

Based on the governor's request, the president may declare that a major disaster or emergency exists and activate federal assistance and programs in the response and recovery effort. "The layers of bureaucracy ultimately end at some key administrative figure, which in the case of disaster relief is the president, who must declare a disaster before FEMA can act" (Sobel & Leeson, 2006, p. 57). Not only is FEMA mandated by federal regulations to coordinate the disaster response, but it is also responsible for the recovery of citizens, cities, and states alike.

The federal disaster assistance that is available under a major disaster declaration falls into three categories, including (a) individual (aid to individuals, families, and business owners), (b) public (public and certain nonprofit agencies for certain emergency services and the repair or replacement of disaster-damaged public facilities), and (c) hazard mitigation (funding for measures designed to reduce future losses to public and private property) (FEMA, 2006). In the event of a major disaster declaration, all counties within the declared state are eligible to apply for assistance under a variety of grant programs.

Disaster assistance consists of direct financial assistance in the form of grants and/or loans for individuals, families, and businesses in the disaster area whose property has been damaged or destroyed and whose losses are not covered by insurance. FEMA develops and maintains the guidelines for resource distribution and also identifies which county residents in the disaster area are eligible for financial assistance using a ZIP code restriction guideline.

FEMA agents assess the amount of damage to each home and its contents during a scheduled interview, which the homeowner is required to attend. If the homeowner misses the appointment, the financial assistance application is denied. These assessments help determine the amount of financial assistance each head of household will receive. Financial assistance payments are provided to disaster victims, while appropriated federal funds are allocated to local community agencies for distribution to further satisfy other needs such as shelter, food, and clothing. Local community agencies compete for these funds, apply for them through various grant processes such as the Community Development Block Grant, and are required to follow the allocation criteria from FEMA. To restrict and control benefits, a standard formula determines the benefit amounts provided to each household, taking into consideration the household composition, property value, and insurance coverage.

Basic homeowners insurance does not include coverage for flooding. In 1968, Congress developed the National Flood Insurance Program (NFIP) as a means to provide insurance for people affected by floods. The program is regulated by FEMA and serves as a safety net for individuals who lose items or suffer property damage in a disaster. The NFIP "offers flood insurance to homeowners, renters, and business owners if their community participates in the NFIP while "participating communities agree to adopt and enforce ordinances that meet or exceed FEMA requirements reduce the risk of flooding" (NFIP Overview, 2009, p. 1). The NFIP Overview criteria also include the following:

1. Homes and buildings in high-risk flooding areas with mortgages from federally regulated or insured lenders are required to have flood insurance.
2. Homes and businesses located in moderate- to low-risk areas that have mortgages from federally regulated or insured lenders are typically not required to have flood insurance.
3. A lender can require flood insurance, even if it is not federally required. (p. 2)

Apartment and home renters are eligible for federal financial reimbursement only if they purchased insurance under the NFIP. If a homeowner or renter neglected to purchase insurance under the NFIP and the property endures a disaster, FEMA's guideline criterion calls

for a reduction of the total assistance claim in the form of a penalty fee of 30%. This allows only homeowners and renters who paid private or NFIP monthly insurance fees to receive the maximum eligibility benefits.

With the poverty level of New Orleans surpassing the national average, the estimated monthly premium range of $96 to $572, as determined by zone location and home value carries a $1,000 deductible (Citizens Fair Plan, 2007, p. 7) which may not have been feasible for many Katrina victims. While those with flood insurance coverage can apply for FEMA grants of up to $26,200 per household to assist with living expenses and reconstruction, one FEMA spokesperson states, “For years it’s only been in the area of $2,500 per household…. It’s really not intended to help you rebuild” (Poling, 2007, p. 21).

1.3.2 Response and Recovery Analysis

Limited research has been conducted to evaluate how FEMA’s response and recovery activities can be enhanced. This type of research is significant when attempting to identify not only the impact that a disaster has upon individuals but also the impact that disaster relief agencies have upon individuals. Although FEMA attempts to provide protection and support to those affected by natural disasters, it appears that detrimental unintended consequences frequently occur instead, which may be due to inadequate planning. FEMA’s shortcomings caused a negative ripple effect that was still felt four years after Katrina’s landfall.

Applying a policy analysis model allows for the identification of factors that help determine the underlying issue, those affected by the issue, and consequences of FEMA’s actions. Segal and Bruzy’s (1998) policy analysis model is an ideal tool to analyze FEMA’s response and recovery regulations because of the multiple layers used in the analysis elements. After applying the model to the Hurricane Katrina disaster, it was found that although FEMA recovery activities appear to offer freedom and choices for all victims, choices of resources were sporadic, limited, or not available at all while a) over $20 billion were provided in the form of direct assistance to heads of households and business owners, b) Hurricane Katrina affected over 700,000 people, and c) Hurricane Katrina destroyed not only physical structures such as homes and businesses but also the personal development and economic growth of the

victims. Although the effects of natural disasters are lessened by the availability of FEMA assistance, disaster victims often suffer greatly from a lack of sufficient shelter, security, and belonging. Nates and Mayer (2005) conducted a review of financial outcomes of natural disasters. Their report includes this statement:

> Katrina left the affected region in chaos: confusion among the rescue and recovery teams, evidence of complete lack of preparedness with insufficient immediately available physical and human resources, health-care systems incapacitated, urban anarchy, despicable crimes, while the world criticized American leaders and emergency organizations. (p. 1144–45)

1.4 Gaps in Coordination

"A Failure of Initiative" is an investigative Hurricane Katrina report, published in February 2006 that contains "the culmination of nine public hearings, scores of interviews and briefings, and the review of more than 500,000 pages of documents." The report resulted in the identification of more than 250 recommendations and statements of findings. Some of these statements of findings include the following:

1. Critical elements of the National Response Plan were executed late, ineffectively, or not at all.
2. Federal agencies, including DHS, had varying degrees of unfamiliarity with their roles and responsibilities under the NRP and National Incident Management System (NIMS).
3. The American Red Cross and others faced challenges due to the size of the mission, inadequate logistics capacity, and a disorganized shelter process.
4. A lack of FEMA and DHS expertise in response, recovery, and reconstruction and insufficient planning, training, and interagency coordination resulted in a higher number of negative outcomes.

There is a lack of coordination between the NIMS and the staff that implement it, but neither of these entities can provide appropriate rescue actions without the other. This gap

creates a significant shortfall in our nation's level of preparedness for natural disasters, with the results observed in most response activities during Hurricane Katrina. The nation should take a closer look at the planning activities of the response and recovery phases in an attempt to fill the gaps of disaster relief management or consider placing specified response and recovery activities with agencies that regularly provide community resources- the nongovernmental organizations (NGOs).

1.4.1 Nongovernmental Organizations (NGOs)

NGOs are staffed by persons with varying levels of experience and education, possess organizational structures that are contingent upon the types of services provided, and are governed by board members. The primary factor that distinguishes an NGO from other agencies is that the organization does not represent the government (at the local, state, or national level) but may interact with all three levels of government. Some NGO activities include advocating for human rights, helping to establish laws and regulations, and raising awareness of environmental issues.

NGOs that are called to provide services to individuals and families affected by natural disasters may distribute daily living essentials and financial assistance as well as intangible services such as counseling and case management. In the case of Hurricane Katrina, however, not all NGOs were prepared to provide any type of assistance to those in need. Katrina's victims needed food, water, clothing, and shelter along with treatment for both physical and mental illnesses and an organized system by which to receive these resources. While victims sought refuge and support in every state in America, over 600,000 came to Texas thus presenting challenges for NGOs that did not historically provide disaster relief assistance.

"Early in the aftermath, the state of Texas absorbed about a quarter of a million evacuees in a matter of days" (Nates & Mayer, 2005, p. 1,145). Eight months later, "Texas was ranked second behind Louisiana in population of Katrina evacuees" (Community Council, 2006, p. 7). Marshall (2007), an associate professor in the School of Nursing at the University of Texas at San Antonio, was a part of the Alamo Area Mental Health Disaster Consortium (AAMHDC) when Katrina struck. Group members included "psychologists, social workers,

chaplains, psychiatric nurses, and other mental health providers" (Marshall, 2007, p. 16). The volunteers of the group provided mental health and immediate living support to Katrina victims residing in a shelter in San Antonio. As an observer and volunteer at the shelter for months after the first onset of residents, Marshall saw that poor planning, which led to insufficient medication, and the lack of an organizational map to help guide staff are two areas that contributed to volunteer exhaustion. "There were an overwhelming number of volunteers in the early stages of the disaster. However, after about 72 hours, volunteers became exhausted and the numbers began to drop off.… I spent many months involved and saw the process of exhaustion in myself. It has been very tiring, especially with a full-time job, spending evenings and weekends at the shelter" (Marshall, 2007, pp. 20–21). Poor planning coupled with inexperienced volunteers can compound the complexity of the situation and possibly increase the level of confusion. While "emergencies tend to generate much informal support" (Yanay, 2005, p. 186), sometimes, "as much as resources are needed, external assistance can contribute to increased complexity during the operational crisis stage" (Rizzuto & Maloney, 2008, p. 83) and increase the level of chaos and unorganized activities.

Contingent upon the source and the frame of reference, there are differing techniques for managing natural disasters, although it can be agreed that an effective planning process produces successful results. "An effective crisis management plan—incorporating emergency response, disaster recovery, communications, business continuity and other programs—can help organizations be better prepared to react quickly and provide more flexibility when an unforeseen, potentially catastrophic, event occurs" (Meisinger, 2006, p. 12). FEMA, the state disaster management office, the local emergency management office, and local organizations all have different definitions of and perspectives on dealing with the consequences of disasters. Even for disaster relief NGOs, managing a disaster effort can be a strenuous and difficult task for staff. Disruption of daily operations can lead to unanticipated problems' introducing new procedures, budget overages, and staff burnout. "When an organization fails to plan and thus anticipate and manage its future, environmental and internal issues are approached on an ad hoc basis, from one crisis situation to another" (Anheier & Cunningham, 1994, p. 102). Although

federal policy identifies the American Red Cross (ARC) as the singular nonfederal emergency response agency, Katrina response and recovery activities were overwhelming for the agency. A departmental manager of ARC stated, “We tried to be as many places as we could. We just couldn’t be everywhere” (Raeshaun, 2006, p. 60). Proactive planning and staff familiarity with the organization’s disaster plan and routine training are critical to recovery.

Summarizing the Katrina problem, Jenson (2005) states, “As volunteer organizations worked diligently to cope with the plight of vulnerable and disadvantaged people in New Orleans and surrounding Gulf Coast states, the Federal Emergency Management Agency received sharp criticism for its failure to provide leadership across all levels of government” (p. 195). Ensuring a coordinated and effective response is the purpose of the NIMS, along with helping disaster management agencies coordinate responses. Closing the gap between the NIMS and NGO emergency management plans must be accomplished through planning and coordination activities. During Katrina, shortcomings in the initial efforts were disjointed at best. Problems were eventually worked out, but with updated strategic disaster management plans and localized coordination activities from one lead entity, the problems can be less detrimental in future disasters.

1.5 Proposed Change

FEMA and NGOs alike can be criticized by some for not providing efficient services; however, without flexible, needs-based, synchronized service plans that utilize local area nonprofit agencies, it is doubtful that any agency would successfully provide services and resources that meet the needs of disaster victims. “At the core of successful organizational adaptation is planning—anticipating change, having the procedures in place to implement change, and monitoring the change process in a way that provides ongoing feedback for further adaptations” (Gilbelman, 2005, p. 170). It is imperative that disaster relief planning for resource distribution be flexible enough to satisfy the short-term needs of individuals and families while also maintaining a structured system that delivers assistance uniformly.

Response and recovery regulations for FEMA consist of specific support procedures to disperse financial assistance to disaster victims but utilize a standardized formula by which to

distribute assistance. Additionally, current FEMA recovery policies do not ensure an equal distribution of resources to those that reside in the affected areas. Since NGOs provide direct assistance to disaster victims, further research needs to be conducted to develop planning models, methods, and procedures for these types of agencies. A model, based upon open systems theory and responses from open ended interviews, will be developed for community level NGOs that provide front line disaster relief to distribute resources to victims more effectively and efficiently. In addition to the damage left by Hurricane Katrina, its "devastating aftermath led to numerous state and federal investigations that exposed deficiencies in federal, state, and local emergency operations systems" (Brown, Hyer, & Polivka-West, 2007, p. 655). Designing a new disaster relief planning model has the potential to not only decrease the negative effects of disasters on individuals but also to form a solid foundation on which emergency managers can develop a more equitable, efficient, and just method of resource distribution.

CHAPTER 2

FACTORS OF SIGNIFICANCE

2.1 Existing Models

The study objective is to explore and identify significant factors that will lead to the development of an all-inclusive preplanning emergency management life cycle model for NGOs to utilize before, during, and after a disaster. Some difficulties that arose from events before and after Hurricane Katrina stemmed from a lack of integration of services, conflicting roles of those in administrative capacities, and poorly distributed resources. The supporting literature includes that of past studies on disaster relief planning efforts that resulted from Hurricane Katrina, the terrorist attacks in New York on September 11, 2001, and management activities of other international natural crisis situations. The empirical review method necessitated the researcher access of 12 databases to locate articles from both national and international studies on natural disasters, crisis planning, and disaster relief planning models from social science peer review publications dated from 1996 to 2009. Names of the databases are: Arts and Humanities Citation Index, Campbell Collaboration, ERIC, Project MUSE, PsycARTICLES, Psychology & Behavioral Sciences Collection, PsycINFO, ScienceDirect, Social Services Abstracts, Social Work Abstracts, Sociological Abstracts, and Wiley InterScience. Due to the limited number of published study results on hurricane Katrina disaster relief management, major search terms included, but were not limited to, “crisis”, “natural disasters”, “social work in natural disasters”, “hurricane Katrina”, “Mitigation Act”, “FEMA”, “models”, “planning”, “September 11 planning”, “planning models”, “natural disaster planning”, “emergency management”, “crisis assessment”, and “crisis planning”. The research identified 102 articles. Of the 119 articles read, 56 articles contained aspects of disaster relief management models. Strengths of the review included

resource allocation methods, a recurring implication of the importance for predisaster preparation, and the need for additional studies on the impact of natural disaster.

Interventions can be applied not only to people but to larger systems as well. Social service agencies and community systems use models, along with interventions, to serve as general illustrations of processes. Models do not provide specific techniques and action steps but provide a foundation from which techniques and action steps can be developed. Emergency managers use models for a variety of purposes, such as flood hazard mapping, air dispersion projection, and time estimates to help predict the technical outcomes and consequences of a disaster. While there are intervention models used with individuals and families, some system interventions used with communities and agencies identify a disaster victim's level of risk and necessary resources to decrease that risk (Tucker, 1995, p. 18).

2.1.1 Department of Homeland Security's Model

The U.S. Department of Homeland Security (DHS) promotes a four-phase model that includes mitigation, preparation, response, and recovery phases. This model "is built upon *scalable, flexible, and adaptable coordinating structures* to align key roles and responsibilities *across the Nation.* It describes specific authorities and best practices for managing incidents" (Department of Homeland Security, p. 1, 2008). The model encompasses emergency management as well as emergency services, thus appearing to provide a comprehensive and complete strategy. While all four phases of the model are seemingly easy to implement, empirical research reveals something different.

Mitigation is the first phase of the model. During this phase, activities center on the use of varied types of analyses to decrease the amount and type of losses that may be incurred in the event of a disaster. During the second phase, preparation, emergency management entities are encouraged to initiate or maintain activities that may include training, plan updates, evaluations, structure capacity testing, and others. The response phase concentrates on dispatching assistance during the disaster or crisis, and the final phase of the model, recovery, identifies the need for balance being brought back into the lives of the community members and

victims through the provision of governmental and NGO reaction (Disaster Responses, 2006, p. 3).

In “A Failure of Initiative,” an investigative report that presents an evaluation of the preparation and response activities applied during Hurricane Katrina, the authors urged more coordination and planning before the next natural disaster strikes. The report states that there was “a lack of FEMA and DHS expertise in response, recovery, and reconstruction and insufficient planning, training, and interagency coordination” (Failure, 2006). It goes on to report additional four-phase model findings, including the following:

1. Tardy and ineffective execution of the National Response Plan
2. An undertrained and understaffed Federal Emergency Management Agency
3. A perplexing inability to learn from Hurricane Pam and other exercises
4. Haphazard and incomplete emergency shelter and housing plans
5. An overwhelmed FEMA logistics and contracting system that could not support the effective provision of urgently needed supplies (p. 359)

Although the report consists of 362 pages reflecting what went right and what went wrong during the Hurricane Katrina disaster management activities and states that there is a need for more coordination between FEMA and NGOs, the report surprisingly fails to address how interaction between FEMA and the NGOs can occur more harmoniously. It also neglects to raise the discussion about increasing NGO involvement during the other three phases of the four-phase model cycle.

2.1.2 A Financial Allocation Model

A second model identified in the article titled “The Allocation of Natural Disaster Relief Funds: Hurricane Mitch in Honduras” (Morris & Wodon, 2003) includes the results of empirical testing following Hurricane Mitch. A 12-module questionnaire was distributed to 2,398 households asking questions regarding Hurricane Mitch, including an inventory of assets owned

prior to the hurricane and the impact of the hurricane on those assets. The researchers present a model for the allocation of disaster relief funds that assists the poorest population first and then escalates to the next level. The procedural steps are summarized as:

1. a financial status assessment before the disaster
2. an assessment of assets lost after the disaster
3. the distribution of funds

A potential danger of this model is the manner in which resources are distributed. It may be true that "because of inequitable and biased distribution, disaster victims belonging to marginalized groups benefit the least from emergency relief efforts … [which] further exacerbates the divide between marginalized and non-marginalized groups" (Paul, 2006, p. 213). However, this supportive model of a hierarchy of resource distribution allocating to those most poor first abandons equality. Another potential danger of the model is that disaster victims may not have tangible documents to confirm their financial status, making verification of status difficult and possibly delaying the delivery of resources even further.

2.1.3 The Buckinghamshire Model

Research suggests that the most effective disaster response is one that encompasses a unit of responders who are trained together. A third model, the Buckinghamshire model, was developed by disaster relief workers who believe that disaster experience and professional training make for the best delivery of coordinated management planning and response. Volunteers, and social service employees were recruited and participated in "an interview in which relevant personal and professional experience was discussed, together with considerations of what the work might entail and what training and support would be made together" (Smith, Lees, & Clymo, 2003, p. 518). The article also warns of the caution among social service organizations working together and highlights their potential discussions of disapproval, which may include "differences between statutory and voluntary work, immediacy of response, proactive versus reactive offers of help, referral routes, time scales of involvement,

and differences between and within difference voluntary organisations (Smith et al., 2003, p. 522). Without external funding and time to plan for adverse situations that have yet to arise, "a converse question arises … as to whether authorities can afford not to have some plans in place. If a disaster does strike, an immediate response is needed and its impact will be multifaceted, far reaching and profound" (Smith et al., 2003, p. 525). The post-disaster relief efforts of the Buckinghamshire model can contribute to predisaster planning by showing the importance of ongoing training and the purpose of multiple social service agencies' working together toward a common purpose.

2.2 Predisaster Planning

Predisaster planning activities can assist in lessening the amount of damage that occurs in the event of a disaster. Current empirical research contains varying perspectives on the most effective type of model to utilize for predisaster planning. The perspectives vary because of different opinions regarding needing planned procedures, applying systems theory, and allowing for flexibility.

2.2.1 Planning in Los Angeles and Mexico City

In the book *Planning for the Unplanned: Recovering from Crises in Megacities*, Inam (2005) offers an insightful point of view for successful disaster relief planning procedures and activities. The author presents the analysis of five case studies to identify the procedures and activities: two case studies of successful disaster housing planning in the city of Los Angeles and Mexico City, two unsuccessful air pollution plans in the same cities at a different point in time, and a fifth case study of the disaster relief activities that occurred in response to the terrorist attack in New York City on September 11, 2001. Inam's viewpoint supports a need for consistent and standardized bureaucratic procedures to methodically provide successful disaster plans and activities. The author chose to use the institutional theory as the analytical framework to compare successful and unsuccessful disaster plans while also to contending the value of standardized procedures. The author consistently identifies five institutional outputs in all of the case studies: the intensity of action, distribution of funds, level of improved conditions, extent of community outreach, and inter-agency coordination.

Inam utilized a community case study design to uncover attributes of disaster planning procedures. Triangulation data collection methods were used to support the analysis of the case studies and also to increase the level of validity. Triangulation methods include documentation reviews, interviews, and surveys administered to disaster relief planning managers. Although triangulation methods are a pertinent application to prevent a low level of validity in all of the five case studies, two of the five studies were not exclusively relevant to disaster relief planning, therefore leaving the reader to question the studies' validity.

2.2.2 Systems Perspective to Planning

A different author, Allen Kirschenbaum, utilizes the rational, natural, and open systems approach to devise the "General Social Process Model of Disaster Management" (2004, p. 281) as presented in the book titled *Chaos Organizations and Disaster Management* (2004). The book presents a unique model derived from the outcome of empirical research and critical analysis. This model opens up a different perspective than that of what author Inam presents in *Planning* (2005) and addresses the privatization paradigm to serve as a solution for emergency management activities. Kirschenbaum validates the need for flexible disaster relief procedures, the impact of conflict between disaster management organizations and the potential disaster victims, and the importance of disaster management agencies' fulfilling their goals, which is an opposite perspective of Inam's. Another privatization naysayer, Jack Pinkowski, tackles the privatization perspective in his book *Disaster Management Handbook* (2008). Pinkowski used a survey, containing closed- and open-ended questions, was administered to 117 federal, state, county, and NGO managerial personnel in San Antonio, Texas. After a content analysis was applied to specific questions pertaining to feelings on the privatization of disaster management, it was found that responders had concerns regarding privatization such as "issues of accountability, the potential for cronyism, and the belief that privatization would be more costly" (Pinkowski, 2008, p. 149). However, the next article mentioned asserts the belief that flexibility, as opposed to privatization, is the key to effective emergency management of natural disasters.

2.2.3 A Call for Flexibility

Brody's "Are We Learning to Make Better Plans?" (2003) presents a longitudinal analysis that examines "the degree to which the quality of local plans changes over an eight-year period with respect to natural hazards mitigations" (Brody, 2003, p. 191). The research study collected plan quality data from 60 Florida and Washington local governments during the period from 1991 to 1999. While the research highlights the study of hazard mitigation plans and the need for flexibility in designing them, it also concludes that plan quality evaluation should be the "blueprint for future actions … [and] can be measured through indicators" (Brody, 2003) and useful in predisaster planning activities. Eight items were used to determine the measurement value on an ordinal scale. While implications include the idea that "encouraging citizen participation and social learning environments during the planning process can enhance plan quality and overall emergency preparedness" (Brody, 2003, p. 198), the article fails to discuss the structure, type, and staff of the organization required to carry out the plan—much needed details that generalizations of the article cannot provide.

2.2.4 A Meta-Analysis

A more recent article, "Introduction: Risk, Disaster, and Policy in the 21st Century" (Birkland, 2004), discusses the perspectives of disaster based on a meta-analysis of five studies in an attempt to contribute to a broad understanding of disaster policy and disaster management. The study identifies the importance of learning from previous disaster experiences, the role of the media in covering catastrophic events, and society's idea of fair compensation to victims of tragedies. The researcher concludes that "it is the coordination of resources that is crucial to moving resources from where they are to where they are needed" (Birkland, 2004, p. 278) but constructs an ineffective argument as to how that conclusion evolved due, in part, to a dual focus that incorporates empirical studies on both manmade and natural disasters. While both manmade and natural disasters may be similar in terms of an unexpected event occurring, the source and dynamics of manmade and natural disasters are uniquely different.

2.3 Training

While models can serve as a foundation for action, “a well-established plan, especially trained staff and regular drills, can make significant change” (Supe, 2008, p. 250). Disaster relief workers come from many different professional backgrounds and have varied planning and managerial experience. A disaster relief worker can be a retired fireman willing to volunteer or a for-profit employee required to take basic disaster management classes at the local American Red Cross as a volunteerism prerequisite. Ideally, one might think a disaster relief worker would have an interest as well as a formal education in emergency management; however, research reveals that this type of worker may be a rarity.

2.3.1 Professional Programs

The FEMA Crisis Management Institute (CMI) found a “listing of 29 colleges, universities and institutions offering Masters level programs, and six offering Doctoral level programs in Emergency Management (the six Doctoral programs are all offered by universities offering Masters programs)” (Shaw, 2004, p. 15). With the limited number of schools offering courses, degrees, and certificates, where can one go to learn about disaster management? Additionally, survey research conducted by Darlington (2000) revealed that out of 945 public higher education institutions in the United States, “just over seven percent of the schools had emergency management courses, but did not have an emergency management degree or certificate program” (Darlington, 2000, p. 6).

2.3.2 The Federal Curriculum

The U.S. Fire Administration operates the Emergency Management Institute (EMI), which is located at the National Emergency Training Center. The EMI serves as the national emergency management training institute which offers training, exercises, continuing education, and course curriculum. The courses are specifically designed to integrate the National Incident Management System (NIMS) guidelines and meet the NIMS basic training requirements. To take a course at EMI, applicants must have completed the prerequisites specified for each course and must meet the selection criteria, which include being an employee of a federal, state, local, or tribal agency with regular job responsibilities within the disaster management

profession. One can also be an employee of a private NGO or be an individual volunteer with a role in disaster management or with an interest in increasing disaster management knowledge. EMI offers independent study courses that are self-paced and free of charge, with a completion time of two to fourteen hours. A total of six classes are recommended for government and NGO students: 1) NIMS: An Introduction, 2) NRP: An Introduction, 3) Introduction to ICS, 4) Basic ICS, 5) Intermediate ICS, and 6) Advanced ICS. Upon receiving a passing score of 75, the student will receive a certificate of course completion and continue on to the next course. While the courses' content varies from basic to advanced areas of disaster management, they are designed to increase technical knowledge through the utilization of drills, situational simulation, and exercise application.

2.3.3 Leadership

Leadership and critical analysis are not part of the training curricula taught at the nation's leading disaster management entity. For an emergency manager to have such an important role, a solid foundation in the areas of leadership and critical analysis skills should be included in the disaster relief course work. These skills are vital to possess when faced with unconventional situations that may call for bold and decisive decision-making skills. The identification of hazard and emergency management courses offered by colleges, universities, and governmental entities in the United States helps to determine training, education, and certification requirements. Darlington (2000) provides additional commentary:

> What the nation currently has is not a vision of needs, but rather a reactionary mix of courses that have been assembled to respond to specific laws aimed at specific hazards and disasters.… Leadership is needed with a vision of how to link theory and performance based training within a core curriculum of emergency management. (p. 11)

This leadership requires critical thinking. The term *critical thinking* can be defined as

> the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication as a guide to belief and action. It entails the examination of those structures or elements of thought implicit

in all reasoning: purpose, problem, and reasoning leading to conclusions, implications and consequences. (p. 1)

During a natural disaster, the call for immediate action based upon critical analysis, sometimes produces more constructive effects than systematic procedural knowledge does.

2.3.4 Flexibility

While it was has been stated that “Current disaster planning and response emphasizes the need for an all-hazards approach. Flexibility and mobility are the key assets required of all disaster management teams” (Briggs, 2005, p. 285), Hurricane Katrina may have proven FEMA’s current model rigid. As important as the roles of disaster relief workers and volunteers were during Hurricane Katrina, workers were not only unprepared to implement ICS but, due to lack of knowledge of disaster management, they were also not able to be as flexible and creative in the wake of the crisis as was needed. “The ICS identifies functional requirements, not titles, to determine the organizational hierarchy of the ICS structure. All disaster management teams must adhere to this structure to integrate successfully into the rescue effort” (Briggs, 2005, p. 285). However, for disaster management teams to adhere to the ICS, they have to not only know ICS but understand it to allow for flexibility and change. Disaster relief training must include basic principles of disasters as well as areas of analysis, critical thinking, and flexibility; in an effort “to adapt to external demands, the organization must operate as an ‘open system’” (Gilberman, 2003, p. 168) to ensure that disaster relief workers are truly prepared for disasters.

2.4 Knowledge Gaps

Research studies addressing vulnerability, mitigation, response, and recovery as areas of disaster management are increasing in number as well as in the variety of topics. The current literature review identified existing models, planning, and training activities that support the need for predisaster planning. The current literature review also identifies knowledge weaknesses, or gaps, in disaster research. The review finds there is a lack of social work involvement in all phases of the disaster management model and limited consideration for culturally diverse and vulnerable populations when developing predisaster planning activities.

2.4.1 Incorporating Social Work Practices

Disasters affect populations in multiple dimensions, and social workers are trained to address social problems on multiple levels. This generalist approach training, acquired through formal education and experience, is acquired through undergraduate accredited school of social work programs. This approach, as stated by Gelman (2005), can positively impact natural disaster victims because it:

> provides a highly referent framework for social work intervention in dealing with situations of crisis and disaster because it addresses all systems levels and of intervention, integrates practice, policy, and research, and is based upon the fundamental tenant of "starting where the client is" (p. 280)

The generalist approach may prove notable in resource distribution for victims that have to leave their homes and relocate temporarily or permanently with limited resources.

It is imperative to continuously embrace the uniqueness of social work and utilize clinical skills taught for single intervention to support whole systems when designing predisaster planning activities and actively engaging response systems. Galambos (2005) states:

> As the world becomes more sensitized to natural disasters and develops more effective responses to the devastation, there are multiple ways in which social workers can intervene in these situations. Broadening professional contributions to include research, administrative, community organization, and clinical interventions, the disaster response can have more impact (p. 84)

To illustrate existing community organization network systems, some social service agencies utilize electronic databases to house and store personal and demographic information of clients that receive services. Using the electronic client information systems to target clients in the community to warn and inform can be achieved through the development of an intra-agency collaboration system. This may prove to be especially useful for special needs populations (i.e. economically disadvantaged, elderly, physically challenged, and mentally ill) when alerting households during the predisaster phase.

In addition to the community organization networking system, social workers can assess and evaluate the impact of disasters on individuals, groups, and communities. The generalist perspectives teaches social work students how to utilize measurement surveys that will accurately assess needs to help determine the appropriate intervention. “Disaster research in social work may offer unique contributions to our knowledge of disasters partly because of the profession’s emphasis on disaster impacts on many systems and levels of analysis” (Zakour, 2005, p. 33). Instead of having social workers employed by NGOs offer assistance and support in the response phase in the form of clinical interventions and direct practice, social workers should have an increased presence in all phases of the traditional disaster management model on account of their professional education, community knowledge and regular intra-agency interaction.

2.4.2 Culturally Diverse and Vulnerable Populations

Some of the populations that social workers are trained to work with include those from diverse cultures, the elderly, those with mental health issues, and the homeless. While social service research has shown that having the ability to work with various populations is imperative when providing resources to victims who have transitioned from another area of the country, there is limited research related to predisaster planning for culturally diverse and vulnerable populations. “Disaster programs and research should focus on social units (household, extended families, and neighborhoods) and the organizations and groups they interact with, such as churches, social clubs, schools, and labor unions” (Eisenman et al., 2007, p. 114). It is important for disaster planners to recognize the needs of unique populations.

2.5 Summary

Information is critical to strategic predisaster planning. In the event of a disaster, NGOs’ disaster relief efforts should include not only understanding the NIMS and its ICS protocol but also include equipping its staff with appropriate planning, management, and training knowledge to ensure a higher level of preparedness. Even further, in order to effectively implement and participate in the ICS, it is imperative that social workers become more involved in the

implementation of the NIMS and intimately involved in local predisaster planning activities that may provide seamless and holistic community services to victims when disaster strikes.

Many federal, state, and local agencies operate under individual legal authorities to save lives; however, multiple rescue agencies responding to an incident or a disaster is a recipe for chaos. Ensuring a coordinated and effective response is the purpose of the NIMS, as well as to “provide the template for the management of incidents” (NIMS, 2009, p. 1) that help disaster management agencies to coordinate responses; however, the current model that is being used across the nation has proven to be ineffective. Closing the gap between the NIMS and other emergency management plans must be accomplished immediately through a new model that reflects strategic planning activities pertaining to ongoing training and increased social work involvement in systems design for disaster management. The current study will seek to use the results of the empirical review to develop an understanding of how resources are distributed during times of disaster, assist in the design of the research methodology techniques, and use in the development of the new model. The initial efforts to disseminate material and intangible resources during and after Hurricane Katrina were disjointed at best and problems were eventually worked out, but with an updated disaster management model, the outcomes will be less damaging for victims of natural disasters.

CHAPTER 3

THEORETICAL ANALYSIS

3.1 General Systems Theory Deconstruction

General systems theory, developed by Dr. Ludwig von Bertalanffy (1952) provides a way to evaluate process components and activities at any point in time. In the midst or aftermath of a disaster, there may be multiple activities occurring simultaneously to decrease loss of life or resources. Some of these activities may need or even require status checks or an evaluation to be conducted to determine what the proceeding step will be. Due to its flexibility and application to any situations, the ongoing evaluation process derived from systems theory offers a valuable theoretical analysis.

3.1.1 Theory Functions

To further understand the relationship between and within a system, Dudley (2005) illustrates that “A system can be considered a collection of variables that are interrelated and bound together be a common purpose” (2005, p. 126) while Fitch adds that “GST emphasizes the synthesis of relationship…as a way of learning how they function “ (2003, p. 498). In relation to disaster management, GST would evaluate the whole system as well as each of the interactions occurring between the natural disaster, victims, environment, and community support systems rather than evaluating each entity singularly.

A flowchart of the theory includes rounded arrows exhibiting functions of activities, which rotate in a clockwise direction. Systems theory does not provide methods, nor does it provide interventions and techniques. It does, however, provide a minidictionary of terms that provides a general understanding of system components and how to evaluate them. It has been from these generalities proposed by systems theory that methods, interventions, and techniques have been derived.

The major concepts of the theory include input, throughput, output, and feedback. Inputs are the resources used to achieve program goals and objectives. For example, the number of volunteers, the amount of volunteer time in a disaster relief assistance agency, money used to support the volunteer efforts, and the volunteer managers could all be considered as inputs and evaluated. Inputs also include constraints on the program, such as regulations, laws, certifications, and funding institution requirements. Throughputs are the processing of each input. This processing activity puts each input into a live and active mode and can be sub-system within the whole system. Outputs are the products of program activities, such as the number of participants served, and should not be confused with outcomes. Distinctly, outcomes are the benefits for the individual or populations during and after participation in program activities and are also the intended results of programs that many of those currently demanding evidence of the value added by programs want to see such as knowledge, skills, attitudes, behavior, status or conditions and are usefully differentiated by whether or not they are intermediate or final outcomes. Feedback is the communication that comes from regularly assessing the input, throughput, output activities as well as gauging the level of homeostasis. The feedback can be either negative and require an amendment of inputs and throughputs, or the feedback can be positive with the correct types of inputs and throughputs in the system needed to achieve homeostasis. A visual display of this process is identified as Figure 3.1 and shown below.

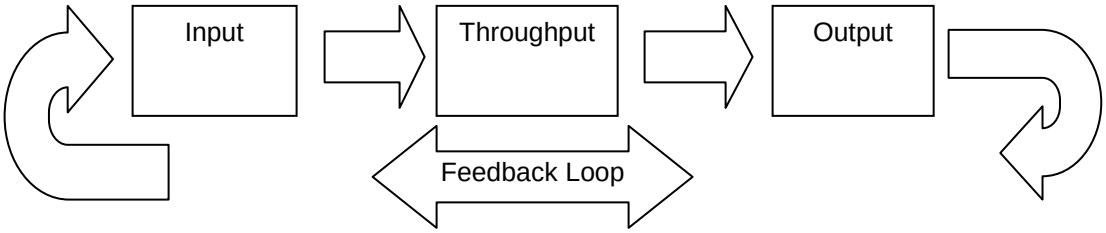


Figure 3.1 Open Systems Loop

The logic model, a task grid, is a by-product of systems theory and presents similar systems theory functions but from a different perspective that would serve suitably in the area of disaster relief management. Logic models are used to identify goals, objectives, tasks, time frames, supplies, progress, responsible parties, and outcomes for each task that leads to the

completion of a project or another task. For example, if an NGO determined that a new service was needed to provide furniture to disaster victims, a logic model could serve as a grid providing the direction, activities, and resources required to implement the service.

3.1.2 Theoretical Underpinnings and Philosophical Components

The Webster dictionary defines principle as “a fundamental truth, a comprehensive law or doctrine from which others are derived or on which others are founded” (Webster’s, 2004, p. 475) while the Oxford dictionary defines principle as “a fundamental truth or proposition serving as the foundation for belief or action” (Compact, 2006, p.1). Both definitions emphasize ‘fundamental truth’ to serve as a foundation for further action. There are a variety of principles that exist within disaster relief management. The variety stems from the array of environments such as libraries, hospitals, nursing homes, and schools that are charged to possess emergency or disaster relief plans. The variety lends itself to complexity depending upon the location, size, scope, and type of the disaster. In an attempt to develop a model for NGOs to use before, during, and after disaster strikes, a foundation discussion is applied to FEMA’s response and recovery role using two of F.G. Reamer’s (1993) principles.

The first principle, morals, supports the concept of ethics and justice-based issues. Moral philosophy asks questions such as, Are the techniques or intervention ethical? Is the current resource distribution system concerned with distributive justice? NGOs using FEMA’s standard equation for financial resource distribution may reflect a lack of flexibility, predisaster conditions, needs of vulnerable populations, or special circumstances. A newly designed planning model can go beyond this and incorporate services that are intended to distribute resources fairly and efficiently.

The second principle, politics, argues the role of the government and the welfare state and the interaction between them. In the field of disaster relief, increasing the victim’s level of self-sufficiency post-disaster can be partially obtained through the government fulfilling its role of providing support as mandated by the Mitigation Act would be an example of the government’s impact on victims. Conversely, while the government provides support to the victims, the victims can affect the government as well. This type of affect may not always be a

pleasant occurrence but can, in fact, help provide balance in a community that has been hit by a natural disaster that has not yet received support.

Systems theory is grounded in constructivism because each participant or system component is constantly changing in an attempt to become balanced. Disaster management activities surround efforts to re-establish lives and achieve balance for victims and communities. NGOs can better prepare for disasters if they utilize a model that incorporates the evaluation elements of systems theory with moral and political principles serving as a foundation.

3.1.3 Comparisons of Theories

Chaos theory uses mathematical variables from data to determine outcomes. It shares a trait with systems theory in the sense that isolating one specific variable does not lead to further information regarding the total outcome. Not only does this concept lend itself to furthering the need of qualitative research on disaster phenomena, it also lends itself to management models that employ multifaceted aspects. The current standard resource distribution equation FEMA model is not accommodating to particular populations or individual circumstances; therefore, using chaos theory may serve as a theoretical foundation to distribute resources in a more comprehensive manner. Unfortunately, due to its complexity, mathematical underpinning, and utilization of "vast amounts of accurate data" (Ayers, 1997, p. 391), chaos theory would not serve as a practical guide for a new model.

As another point of comparison, the conservation of resources (COR) theory "suggests that people build and retain resources in order to enhance the self and maximize positive reinforcement" (Sattler et al., 2002, p. 340). This theory helps to identify the types of resources that are needed to help individuals and families increase their level of resilience. The resources are similar in nature to Maslow's hierarchy of needs pyramid (1943) and are characterized as material goods and services. Although research outcomes have revealed that a loss of personal resources increases the likelihood of psychological distress, COR does not take into account the level of resilience, secondary stressors, or the types of resources that individuals and families may have had before the disaster.

According to Queralt (1996), the ecosystems theory offers “a way of thinking and organizing knowledge that emphasizes the interrelatedness and interdependency” (Queralt, 1996, p. 17) between individuals and social institutions. This theory assists in increasing resilience through strengthening support systems. For victims of disaster, strong support systems may be the only positive result of the disaster. Although this theory may seem more appropriate to apply to disaster relief as opposed to systems theory, the ecosystem approach is better suited as a foundation for post-disaster activities where interface between victims and support systems may occur for long periods of time.

3.1.4 Strengths and Weaknesses

Systems theory is overloaded with generalities and, by some, could be easily regarded as a poor theoretical foundation for a predisaster planning model because of those generalities. The theory was conceived from the observation of other theories and not from an experimental design. The theory only describes terms, presents a descriptive flowchart, and is lacking in its ability to guarantee positive outcomes.

Systems theory could be considered paradigm. It is a “scheme that organizes our view of something.… Although a paradigm doesn’t necessarily answer important questions, it tells us where to look for the answers” (Rubin & Babie, 2004, p. 38). The article “Use and Evaluation of Theories” states, “Given that a crucial function of a theory is to be a guide to activity, how well a specific theory serves as a guide in a particular endeavor would be of prime concern to a theory consumer” (Nugent, 1987, p. 15). Systems theory is a perspective without intervention, methods, or procedures and merely presents a general overview.

Even with the previously mentioned limitations of the theory, systems theory has presented itself as an adaptable base to many professions. It is because of its adaptability that multiple methods derived from a systems theory base can be developed in quantitative or qualitative research design through the use of measurement tools to influence change in governmental and NGO procedures.

3.1.5 Implications

Systems theory in disaster management is not an improbable concept. Similar to systems theory, the design and implementation of FEMA response and recovery activities are structured in a concise step-progression manner in an attempt to achieve a balance for individuals and communities in need. *Are We Learning to Make Better Plans?* (Brody, 2003) discusses systems theory, adaptive management, and the impact of disaster mitigation. The article states, “Hazard mitigation plans and policies thus need to be flexible instruments, geared toward uncertainty and surprise” (Brody, 2003, p. 192). However, the FEMA response and recovery model is anything but flexible; as seen during Hurricane Katrina, there were negative outcomes that stemmed from the model. Systems theory can be a useful foundation from which to evaluate methods when attempting to identify aspects of the response and recovery model that may be deficient. “It is necessary to study not only parts and processes in isolation, but also to solve the decisive problems found in the organization and order unifying them, … and making the behavior of the parts different when studied in isolation or within the whole” (Bertalanffy, 1976, p. 9).

At its inclusion in the social work profession, systems theory became an accepted constructivist-based solution to a profession in need of a stronger base. “System theory provides a broad approach to understanding the world, and can be applied in many settings, among them social agencies” (Kirst-Ashman, 2009, p. 130) When applying systems theory within a social service organization, its usefulness can be observed when implementing task activities as a program developer, evaluator, or administrator when initiating “a change in one part of the system process [that] could create changes in other parts of the system” (Brueggemann, 2006, p. 347). This is the internal flexibility needed within disaster relief organization. Over time, systems theory by-products, such as the logic model, have become proven methods used to help change agents to determine how to improve their interactions with other systems and the role they play within those interactions. The flexibility of systems theory allows it to include an inanimate operation and also be used to describe the function of a human; however, it is that same flexibility that limits its potential to be standardized and strong

in empirically driven practice. It is without methods and interventions that could limit its abilities and can lend its support to the multilayered world of disaster relief.

Systems theory is able to capture the dynamic interaction among levels of systems, provides a framework within which to view the world, and emphasizes the importance of external interactions. The theory supports major aspects of disaster relief while systemically layering individuals and entities as playing an important role in achieving balance. The theory grants an eclectic theoretical base for practice so that productive models and effective changes can occur on multiple levels. When a crisis occurs and an NGO is prepared, reactivity not only allows for a seamless process but also for a poised experience, lending itself to achieving homeostasis as efficiently as possible. It is with this premise that the two guiding questions used in the current study were developed with the intent of identifying how systems theory and empirical research factors can be included in the new model.

CHAPTER 4

METHODOLOGY

4.1 Qualitative Research Methods

Research is a process through which researchers build information, knowledge, and understanding. One purpose of social research includes collecting and analyzing empirical data from studies and experiments to develop new interventions and methods to address social issues. The impact of conducting quality social research studies can be the driving force behind the promotion of a new program, the cause of an amendment to a policy, or the springboard for a movement to explore a new phenomenon. It is with this premise that a qualitative research design was implemented to develop a resource distribution planning model for NGOs.

Qualitative methodology, a social research approach, uses various ways to collect and analyze unquantifiable data. This approach is often useful when attempting to conceptualize a phenomenon in its most natural state. A qualitative data collection method often "minimizes investigator manipulation of the study setting and places no prior constraints on what the outcomes of the research will be" (Patton, 2002, p. 39). Using the framework and design described above, the hypothesis is derived from the commonalities found in the data during the analysis process.

The hypothesis, or depth of a phenomenon, is explained through theory development or grounded theory. Grounded theory is utilized when a researcher desires to understand aspects of a phenomenon without making prior deductions or assumptions. Although grounded theory appears to have a loose and general sense, it actually "consists of quite specific methods and systematic procedures" (Patton, 2002, p. 127). Grounded theory is used as a foundation to the research design for this study in an attempt to develop a preparedness model derived from meanings, reflections, and insights of NGO staff.

4.1.1 Selection of Site and Participating Agencies

With the high numbers of victims that sought support in Texas, the site and sample selection was conducted in the metroplex counties of the northern, central, and southern regions of Texas. Purposeful selection was used to identify the participating agencies. Maxwell (2005) defines this activity as "a strategy in which particular settings, persons, or activities are selected deliberately in order to provide information that can't be gotten as well from other choices" (Maxwell, 2005, p. 88). While it is unlikely to believe that all Texas-based NGOs could be identified and listed as potential agencies to participate in the study, it is more probable to access the Texas Voluntary Organization Active in Disaster (Texas VOAD) membership list when selecting potential agency participants. National VOAD, founded in 1970, acts as the primary point for nonprofit and voluntary organizations for each FEMA regional headquarters in an effort to efficiently dispense services to disaster victims (About Us). Every state VOAD is a member to the National VOAD and is required to function "with similar principles and values to the National VOAD" (Members) In order to become a state of Texas VOAD Partner member

> Organizations must qualify as not-for-profit under IRS Code 501 (c)(3), with voluntary memberships and constituencies.
>
> Organizations must have a disaster response program and policy for commitment of resources to meet the needs of people affected by disaster without discrimination.
>
> Organizations must be statewide in scope.

Utilizing the Texas VOAD membership list as the participant framework assures that any potential study participants have had exposure providing disaster relief service.

It may be important to identify a specific sample size for quantitative research designs, qualitative research sample size is determined by the needs of the study. Patton (2002) suggests that

> Qualitative sampling designs specify *minimum samples* based on expected reasonable coverage of the phenomenon given the purpose of the study and stakeholder interests. One may add to the sample as fieldwork unfolds. One many change the sample if information emerges that indicates the value of a change…Yet, at the beginning, for

planning and budgetary purposes, one specifies a minimum expected sample size and builds a rationale for that minimum, as well as criteria that would alert the researcher to inadequacies in the original sampling approach and/or size. (p. 246)

While “there are no rules for sample size in qualitative inquiry” (Patton, 2002, p. 244), all of the 31 Texas VOAD partner members were listed as a point of contact as potential interview candidates. This list was further scrutinized through stratification methods “by combining types of purposeful sampling” (Patton, 2002, p. 240) with direct agency contacts made to an agency administrator. Permission from each agency administrator had been sought and granted prior to direct contact with staff members. A stratification criterion was designed to compare participants with similar case characteristics. Due to the purpose of this study, identifying a tangible resource distribution model, intangible services such as clinical intervention, counseling, and therapeutic treatment was not included in the stratification criteria. The purpose of developing eligibility criteria was to include information only from NGOs that had a history of social service delivery while attempting to exclude social service programs and services that were developed in the wake of hurricane Katrina. The agency administrator was also asked to identify and list individual staff members based on the following stratification criteria:

1. Employment at either social service agency, nonprofit organization, or nonprofit organization with a 501 (c)(3) status for at least six months prior to hurricane Katrina landfall.

2. Provided tangible resources (i.e. food, clothing, shelter/housing, furniture, medicine, and/or medical equipment) during Hurricane Katrina landfall or at least 3 consecutive months after Hurricane Katrina landfall.

Names of the eligible agencies that participated in the study interviews were placed on a list of days and times of preferred interview dates. It was at this point that the approved Institutional Review Board (IRB) protocol was followed and the data collection process was initiated.

4.1.2 Data Collection

Data collection techniques included individual interviews with each study participant. The interview questions were designed to obtain "in-depth responses about people's experiences, perceptions, opinions, feelings, and knowledge" (Patton, 2002, pg. 4). The study interviews contains standardized open-ended questions which gives "the client [study participant] more opportunity or flexibility in responding and elaborating" (Murphy & Dillon, 2008, p. 156). Giving the study participants an opportunity to respond and elaborate elicited responses that are insightful, in-depth, and specific to the perspectives of each participant. The interviews were conducted with each study participant and held at a time and day convenient to the study participant while lasting no more than two hours per interview. The qualitative research perspective supports the importance of facial expressions and behaviors that cannot be captured by the use of standardized measurement tools, and these will also be noted by the researcher in a journal and recorded on the interview transcripts. When developing specific interview questions to identify how front line relief NGO allocators can be better prepared to help disaster victims in need of social services, feedback from staff members can best serve in this approach. In correlation from the current literature review including the need for resource allocation methods and predisaster preparation, two guiding questions were developed to ask the study participants. They are:

1. If given the opportunity, how would you describe an ideal disaster relief program?"

2. How would you describe what worked and did not work while providing services to hurricane Katrina victims?

These questions will provide the inputs, throughputs, and outputs needed for the development of a new resource allocation model.

The contact information of all interested study participants were put on a separate list and interview scheduling was initiated immediately thereafter. Data collection started upon completion of the first interview and commenced upon the last interview.

4.1.3 Data Analysis Techniques

Each interview was recorded, transcribed, and compiled into one tangible document divided into sections according to each question. A separate tangible copy of the completed transcript was made and kept in a locked fire proof file cabinet to prevent loss or damage. Each of the responses was given a number and the initials of participant that made the response were included in parentheses at the end of each response to distinguish what was said and by whom. Any pertinent notes written by the researcher serving as observations of nonverbal communication that enhanced the depth or richness of how the response were made during the interview was also included into the column text section of the participant response.

Content analysis was used to analyze the data. This form of analysis "is used to refer to any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings" (Patton, 2002, p. 453) Meanings, patterns, and consistencies were identified through a three task coding process of the transcribed interviews.

Each participant was offered a copy of their transcript and given a period of time to review the document however, they all declined. If any study participant had requested a copy of their transcript to review, the researcher would have provided the copy and contacted the participant at a later time to discuss the transcript either in person, telephonically, or electronically. The participant would have then been asked questions about their response in an effort to clarify, explain, confirm, and expand their initial answer to the researcher before the coding process started. Incorporating this type of activity helps to serve as an additional preventative measure against researcher bias.

4.1.4 Ethical Considerations with Human Subjects

Empathy and symptom awareness are two practices this researcher remained conscious of when interacting and interviewing NGO participants. Additionally, the researcher was equipped to provide trauma counseling referrals to participants who displayed symptoms associated with traumatic event recall of study participants. "While acknowledging this trait (vulnerability), and the general willingness of people to share their experiences so that others

may benefit, researchers and reviewers should be mindful of the many different ways individuals respond to disaster and of their ethical responsibility to respect those differences" (Levine, 2004, p. 254). The University of Texas- Arlington (UTA) Office of Research helps to ensure that not only social service researchers, but all researchers respect the rights and dignities of study participants through the IRB.

A protocol outlining the study was submitted to the UTA Office of Research for approval from the IRB prior to the commencement of any data collection activities. After the study received IRB approval, agencies identified on the sampling frame list were contacted and asked to participate in the study. As potential participants requested study inclusion, individual preliminary meetings were scheduled with each of them and conducted either over the phone or in person. The individual meetings served not only as an introduction to the study but also as an introduction to the research study purpose, process, responsibilities, and roles and expectations of everyone involved in the study. The outcome of this study depended solely upon the level of cooperation of study participants, so it was imperative that rapport, trust, and professionalism were preserved with all of the proposed and actual study participants. During these individual meetings, the outline, study timeline, and consent letter were discussed. The outline included information on what the study participants should expect during the data collection and analysis phases of the study. Each study participant signed a consent letter prior to study participation or provided verbal consent prior to study participation. The consent letter included the name of the potential study reviewer, professional affiliations, the participant's identification number, and study purpose. The consent letters, transcripts, and record copies are kept in a locked file cabinet and copies stored on a secure hard drive. This precaution supported a higher level of confidentiality for the study. Prior to the study's conclusion, participants received an invitation to the dissertation defense and will have access to a final copy of the approved dissertation.

CHAPTER 5

STUDY OUTCOMES

5.1 Presentation of Findings

From the original sampling frame of 31 Texas VOAD partner members, two agencies dropped their membership during the course of the dissertation study. Out of the remaining 29 agencies, phone calls were made to each to schedule an interview. From the reduced membership, 12 agencies (or 41%) participated in the study as interview responders. While some agency representatives desired to conduct the actual interview during the interview scheduling phone call, some agencies either scheduled the interview date at a later time, failed to follow through with the actual interview, or did not respond to the invitation to participate in the study. Table 5.1 displays the study participants and their respective locations.

Table 5.1 Demographics of Participating Agencies

Agency Name	Texas Based	Out of State	Deploys Inter-Nationally	Faith-Based	Year Established as Nonprofit	Provision of Service Beyond Disaster Relief	Number of Staff
Adventist Community Services		X	X	X	1972	X	Over 200
American Red Cross	X		X		1881	X	6-38 per local US agency office
Catholic Charities	X		X	X	1910	X	4-16 per local US agency office
Christian Reformed World Relief		X	X	X	1962	X	45 in the US & Canada offices

Table 5.1- *Continued*

Crossroads Church of the Nazarene		X		X	1910	X	8
Mennonite Disaster Services		X	X	X	1950		18
REACT International		X	X	X	1962	X	3-12 staff at 191 national locations
Texas Baptist Men	X			X	1968	X	14
Texas Center for the Missing	X				2000	X	Below 40
The Salvation Army	X		X	X	1865	X	Over 200
Victim Relief Ministries	X		X	X	2001		6
WORLD FIRST Ministries		X	X	X	2005	X	5

5.1.1 Data Analysis

While data is based upon the perspective of the study participant, grounded theory was used as the framework for the data analysis process. This type of analysis is used to discover the essence of a particular phenomenon and also used as a standardized method to process the data and assist in taking “the researcher into and close to the real world so that the results and findings are grounded in the empirical world.” (Patton, 2002, p 125) As previously stated, content analysis and coding, both rooted in grounded theory, are two methods used in this study to analyze the data.

Content analysis, a type of data reduction method, requires attention as soon as the first piece of data is collected in order to assist the researcher to “move back and forth between concept development and data collection (Miles & Hubberman, 1994). Due to the number of sample participants and a desire to identify the links between each study participant, the empirical research, and conceptual framework, a constant review of the data, or inductive

analysis, was used to help organize the data into categories and themes for each study question posed to the study participants.

5.1.2 Preparing the Data

Some Texas-based agency representatives were not able to participate due to deployment to an international disaster or declined to participate in the study when denied a request for electronic typewritten study questions. Compiling data based upon electronically submitted responses from study participants was denied due to limitations of the IRB approved protocol. Open-ended questionnaires were used to further support a grounded theoretical framework in the manner of allowing data to occur from the perspective of the study participant. For the interviews that were completed, transcripts were typed immediately after each interview was conducted. Transcripts are written scripts of what was said and done during the interview. After the transcripts were drafted, researcher notes were included to the right-hand column within the transcript. Researcher notes includes voice pitch, rate and tone changes along with pauses of silence. The notes are used to help enhance depth of the responses provided. Three copies of each transcript were made in addition to one back-up electronic copy saved on a hard drive and another on a memory stick for safe keeping.

5.1.3 Content Analysis

The responses from a transcript copy of each interview was cut up and divided according to the commonalities amongst the responses. This process required the researcher to continuously read the responses to adequately select the commonalities. Each transcript was read continuously until the researcher was able to see word patterns. This type of constant comparison serves as a means for multiple pages of each transcript to be reduced into the word patterns. The discovery of patterns can also be called inductive analysis which “involves discovering patterns, themes, and categories” (Patton, 2002, p 453) and repeated similarities amongst each of the guiding questions asked. Upon completion of the inductive analysis process, the divided answers were glued onto one blank piece of paper per commonality. Each

piece of paper was then labeled with one theme that was comprised of the shared commonalities based upon the word patterns.

Open coding was initiated during the first of three transcript readings. During the first transcript reading, “the researcher locates themes and assigns open initial codes or labels in a first attempt to condense the mass of data into categories” (Krueger & Neuman, 2006, p. 438). This is done by reading the transcript in its entirety and identifying patterns. Patterns of similar descriptions shared by the participants are classified and written as themes—ideas or perspectives that are repeated. This task was conducted as quickly as possible after the transcripts were formatted and the researcher notes were added. During the second transcript reading, emphasis was placed upon scrutinizing the themes found during the open coding process to ensure that themes were plausible and to potentially incorporate new ones. This is an important task since it cannot be assumed that themes will be repeated by all of the participants and may present themselves in different words or phrases. A third transcript reading will be performed as a final attempt to compare and contrast between the data, researcher notes, and the codes.

The data collected, at first glance, did not appear to have correlated responses. But after reading the responses multiple times, and initiating the content analysis process, similarities began to emerge and the coding process began. According to Charmez (1983)

> Codes serve to summarize, synthesize, and sort many observations made of the data…coding becomes the fundamental means of developing the analysis…Researchers use codes to pull together and categorize a series of otherwise discrete events, statements, and observations which they identify in the data (Charmaz, 1983, p. 112).

The data preparation process is shown below as Figure 5.1.

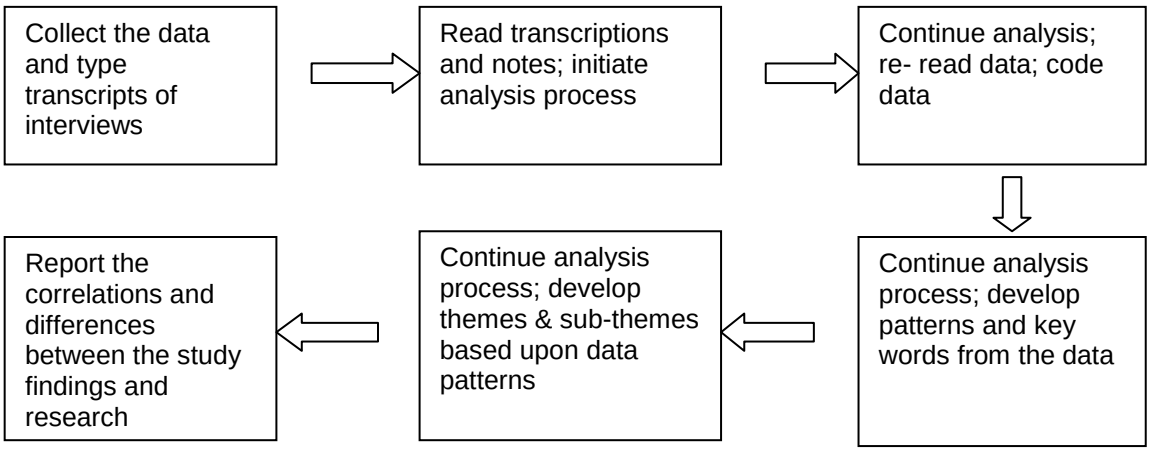


Figure 5.1 Data preparation process

5.1.4 Study Results

The study results summarize the data that was collected. Using summarizations and quotes, the following describes how the study participants answered the questions. Quotes and commonalities were used to describe the study outcome as well as the theoretical and conceptual links. A visual display, developed with the assistance of the Computer Assisted Qualitative Data Analysis (CAQDA) N-VIVO 8 to help summarize the data and show the relationships between themes. In an attempt to present a descriptive report of the study outcomes, the assistance of a computer software qualitative analysis system was sought to present the links between the study participant responses. Some might argue that using a software program "can interfere with the analytic process" (Patton, 2002, p 446) however the provision of a visual diagram of the categories and themes increase the level of study credibility.

5.1.5 Study Question One

The first research question asked for a description of an ideal disaster relief program. Participants provided responses that isolated a need for coordinating various preparation activities.

> It's important for everyone to know the Incident Command.
>
> *The Salvation Army*

> The volunteer strategies should be based upon each community. The management of the volunteers should be based upon zip code or regions of the community where the volunteers live.

Texas Center for the Missing

> Be ready and prepared. Stage the area to model or create the area by building a tent city. It's a temporary city with everything that people need like post offices, grocery stores, and parks.
>
> *Texas Center for the Missing*

> Jumping in with both feet is not good. Run the system like a for profit system. Condense services to help thousands instead of trying to do everything for everyone and help to manage systems and resources.
>
> *REACT International*

> It would be nice to preplan or stage what you're going to do prior to landfall to be ready to move into the area of devastation during landfall. We needed to be there in the area ready to help before the victims get there.
>
> *Texas Baptist Men*

> Determine beforehand what resources are needed for each disaster. It would be nice to pre plan or stage what you're going to do prior to landfall and move into the area of devastation during landfall- be there.
>
> *World First Ministries*

The above statements are examples of how management strategies can be used to help agencies better prepare for future disasters. Additional responses extracted from the transcripts to further validate the importance of preparation include the need to coordinate relief activities and expectations.

> Know what your role is going to be and work in coordination with others. Do what you do and don't own the disaster but contribute to the relief of the disaster.
>
> *Crossroads Church of the Nazarene*

> NGOs didn't feel the need to coordinate with anyone in the past, but now there needs to be.
>
> *REACT International*

> It is possible to work with what you have and do good, but its knowing how to work with what you have that makes the difference.
>
> *The Salvation Army*

> Organize and prepare the disaster responders to help sustain support. The timing is crucial because people need emotional assurance.
>
> *Catholic Charities*

> The key to disaster relief is coordination of local emergency managers with the state emergency system.
>
> *Adventist Community Services*

> Know your role and work in coordination with each other. Do what you do and don't own the disaster but contribute to the relief of the disaster. All disasters should be responded to from the perspective or the lens of the victim. It's the victim that suffers the loss.

Texas Baptist Ministries

According to the study participants, NGOs should manage the disaster relief program through the coordination and preparation of responders and resources.

5.1.6 Study Question Two

The second research question was a two part question. The question sought a description of what worked and did not work while providing services to hurricane Katrina victims. While the description of what worked was based upon the primary objectives of each individual agency, study participants stated that the lack of communication internally and externally was problematic.

> There was a failed communications system. Agencies didn't talk to each other, even with all the coordination efforts within the Texas VOAD. Some people didn't want to work with church-based agencies.
>
> *The Salvation Army*

> There was a fractured communication system due to agency ego and a lack of collaboration amongst the agencies that were there to help. We need centralized management. It's better now with agency collaborations, but it was bad during Katrina.
>
> *REACT International*

> Communicate with people and responders of the expectations in terms of food and water.
>
> *American Red Cross*

> We didn't have phones for the first few weeks. We had to use ham radios the first few days. We lack the ability to communicate. There wasn't a place for the volunteers to stay and we ran out of gas for the diesel trucks. We also had problems getting the computers working because we couldn't have the internet hooked up to use the web based inventory, so we couldn't run as good as we were used to.
>
> *Adventist Community Services*

> Communication can affect their (the disaster victim) own recovery but communication can't always be received without outside resources as an attachment to it. If you assume that outside resources and assistance exists, then local community leaders, residents, or members should be involved in the communication and ultimately the decisions that are made.
>
> *Victim Relief Ministries*

Additional concerns regarding what did not work pertain to the distribution of resources to the victims such as:

> There were a lot of resources available but it took too long to receive permission to dispense them…like medicine and emergency prescriptions to dispense.
>
> *Adventist Community Services*

> Getting the computers and internet hooked up to use was a problem. Our inventory is web-based, so we couldn't utilize the system that held our inventory the right way. We had to do everything by hand for a while.
>
> *Texas Baptist Men*

> It's important to understand what the basic needs are to tend to them first. People needed an immediate response to get the things that they needed. In this case, funds weren't more important than time.
>
> *Catholic Charities*

> People need access to immediate help. They need resources like food, shelter, health care, life needs, and general community services.
>
> *World First Ministries*

Not all responses included insight as to what worked during Katrina relief efforts

however, there were positive perceptions. They include:

> Food and water was delivered- that was good. It's important to educate the public. They need to know that if they are going to help, then they need to buy in bulk.
>
> *Texas Center for the Missing*

> What worked the best was the mobile distribution of items to victims and where they were and the direct distribution to the victims.
>
> *World First Ministries*

> There were a lot of resources available.
>
> *Adventist Community Services*

> The only good thing that happened was the faith community, the NGOs and the nonprofits- they were the shining star in Katrina. The government was scared of lawsuits and shut their doors to victims without support or follow up and failed at every level.
>
> *Texas Baptist Ministries*

> We were able to partner with organizations that had resources. We are a volunteer organization so most everyone is a volunteer. There is no paid staff which can lead to an increase in turnover. We rely heavily on existing agencies that have rooted resources.
>
> *Mennonite Disaster Services*

While there were responses that isolated a need for a higher level coordination and communication, most responses were able to report that they felt that factors such as nonprofit efforts, the distribution of basic needs to victims, intra-agency coordination and time were positive attributes of the relief efforts.

CHAPTER 6

OUTCOME CORRELATIONS

6.1 Explanation of Findings

This study attempted to identify a disaster relief management model for NGOs. Pre-planning, training, and leadership are concepts identified in the empirical research that is linked to the responses of the study participants.

6.1.1 Pre-planning

The four-phase model used by DHS is based upon mitigation, preparation, response, and recovery phases. While “A Failure of Initiative” reports a need for coordination between FEMA and NGOs, the responses from the study participants reflect a concern over the lack of coordination within the internal structure of the agency as well as externally amongst collaborative efforts. Although it may seem advantageous to look more closely at Inam’s recommendation of predisaster planning activities and standardized procedures to infuse structure, study participants concur that being flexible is a quality asset when developing and implementing the disaster management plan. Supportive study responses include:

> Work with what you have.
>
> Create appropriate expectations- figure out how to meet the expectations by being organized.
>
> Determine what resources are needed for each disaster and plan for it that way.
>
> Have forklifts, trucks, and equipment already on hand.

According to study participants and empirical research, both flexibility and structure preplanning activities are needed when participating as a disaster relief agency.

6.1.2 Training

There are a limited number of schools that offer emergency management degrees or certifications in the United States. The Emergency Management Institute serves as the accredited body that offers courses on the NIMS guidelines. In reflection of emergency management educational programs, one study participant stated in response to question number one by stating there was a need to:

> Have test-based courses so that everyone knows what their job is, be credentialed, and be prepared to help meet essential needs.
>
> *REACT International*

> Work with the Incident Command System. Know your role and everybody's role so you can work in coordination with each other.
>
> *Victim Relief Ministries*

While there was only one study participant that identified a need for a test-based curriculum for disaster relief managers, empirical research reflects a need for an increased number of emergency management educational programs.

6.1.3 Leadership

According to empirical research, leadership and critical thinking skills may be considered more important skills to possess as opposed to understanding procedural knowledge, there were not any reflections of this perspective shared amongst any study participants. Both empirical research and study outcomes identify a need for flexible, standardized methods to be utilized by trained professionals as tools for disaster management. This means that incorporating these factors into a disaster relief model is essential. Including the GST into the list of model design essentials as a theoretical foundation will not only make for a holistic approach to disaster management but encourages a true focus upon finding a balance in the midst of chaos.

6.2 Conceptual Framework Link

There is continuous activity involved with natural disasters- from the tracking of the hurricane to the impacts of its effects and using the GST as a foundation for the all of the planning processes involved is essential when attempting to establish balance. Logic models

can be used not only as a preplanning tool but a management tool as well. Study participants discussed the need for coordination within the disaster relief agency as well as a need for coordination amongst the other agencies involved in the helping efforts. GST incorporates inputs, outputs, throughputs, and evaluation elements that can benefit disaster relief agencies in a standardized yet flexible manner. Empirical research and study participants agree that flexibility before, during, and after a disaster is imperative- the GST can serve as the adaptive management tool to help establish balance.

Change advocates that utilize this theory are able to target specific governmental entities that affect the energy flow within the systems design. This also allows practitioners and disaster victims to advocate for needed services from the NGOs while also allowing NGOs to impact the lives of disaster victims. Through identifying NGO entities, the gaps in services can be identified and a broader impact can be made to create positive change for both NGOs and disaster victims.

6.3 The MURPHY Planning Model

The MURPHY Planning Model is presented as a planning model for NGOs that provide disaster relief resources to victims. The six model components are devised upon the responses from the study participants and include:

1. Management the disaster prior to landfall
2. Urge the development of structured performance plans
3. Authorize resources for staff
4. Participate in collaborative efforts
5. Develop a hierarchical, vertical and multidirectional communications configuration
6. Yield outcome results

The remainder of this section includes a descriptive of each of the six model components.

The first model component is for NGOs to manage the disaster prior to landfall. The intra-agency systems approach can assist NGOs to manage disaster relief activities by regular

interaction and communication amongst NGOs. This perspective is shared by Elliott (2010) of the importance of this approach

> One of the problems in delaying response to Hurricane Katrina was poor relationships between local, state, and federal governments. Preparedness and political empowerment are essential for an effective response and for good relationships between international, national, local voluntary services" (p 101, 2010).

During this pre-planning phase, tasks, roles, and responsibilities of local NGOs can be discussed and agreed upon, which can assist administrators when assessing whether or not to participate as a disaster relief resource for victims or to what extent will their level of participation will be. Resource dissemination planning activities such as eligibility criteria and client intake forms can also be a part of the discussions amongst the NGOs to design a strategic manner of distributing resources.

The second component is for NGOs to urge the development of performance plans of all departments and staff members that will be involved in disaster relief work. There are different areas that can be addressed in a performance plan however; performance plans pertinent to the MURPHY Planning Model can be designed to specifically address what needs to be improved within the program and with program staff. Goal achievement, service effectiveness, and task proficiency are some of the areas that can be assessed in a performance plan when applied to a program. Each participating department within the NGO can determine which activities and staff will be assessed and, based upon assessment outcomes, the actions needed to rectify the areas of improvement. Reflecting upon GST, the logic model can assist in the development of the improvement components. Assessing program activities can assist administrators when gauging what is occurring properly and which programming aspects to be cautious of when disseminating resources to victims of disaster. Performance plans can also be designed to address the level of staff efficiency. Measuring staff levels of knowledge, skills, and training can serve as a baseline to help determine the degree of change after training, drills, and instruction has been received.

Thirdly, it is important for NGO staff members to understand the disaster response procedures as outlined in the NIC prior to participating as a disaster responder. Being equipped with knowledge of the process during the pre-planning phase can increase familiarity and the level of comfort in times of disaster. This increased level of familiarity and comfort can also assist when troubleshooting situations or designing procedures. In addition to knowing and understanding the NIC, it is equally important for responders to be exposed to other types of disaster management operations and systems to adapt to and accommodate unplanned situations. Exposure to various perspectives and diverse frameworks should be authorized by agency administrators for NGO staff to register for professional disaster management courses in accredited educational programs, complete competency-based training and drills, evaluate peer-reviewed journal articles, and attend conferences on disaster relief pertinent subjects. Utilizing existing resources such as the state VOAD or local VOAD partner members can also provide an opportunity for NGOs to obtain training and develop or strengthen affiliations.

The fourth component, participation in collaborative efforts, revolves around the importance of nurturing relationships within existing community agencies. This component was evidenced in the outcomes from both the empirical and current study. While it is important for NGOs to collaborate with each other when there are limited resources available for victims, it is an especially important component for NGOs that deploy teams of staff or volunteers to territories outside of their normal region or district when disseminating resources. Danso and Gillespie (2010) further illustrate this viewpoint

> Relationships between organizations, national or international, always involve resources. Information is the most pervasive resource shared across communities…Coordination channels particular resources in a common direction for the overall benefit of a community. The more complex the community, the more important it is to establish coordination. Coordination is important to social workers in every community, and it is becoming more important during and after disasters. (p 113, 2010)

While this concept becomes particularly vital to the deployed teams, it is as essential for NGOs, regardless of in-state or deployment relief work, to be familiar with the communities. Social workers are knowledgeable of local resources, leaders in the community, and can serve community agency collaborators. While there may be different types of resources dispensed and available to NGOs, incorporating an existing system operated by social workers may prove to be not only timely but resourceful as well.

The communication arrangement, which serves as the fifth model component, should include all levels of disaster responders within the NGO and points of contact with collaborative community agency partners. When developing the details for this component, it is important to keep in mind that using a multidirectional arrangement of communication (i.e. direct support staff member directly communicates with a program administrator) is necessary when implementing new tactics, troubleshooting an unforeseen issue, or encountering an unpredicted predicament. It is also important to include potential funders and philanthropic organizations in this communication arrangement while preplanning and sharing information of how resources will be disseminated. Including potential funders in the communication arrangement may increase service efficiency by having the potential funder aware and informed of the needs of the disaster relief program. Furthermore, one should be mindful of having multiple methods of communications that are solely reliant upon electricity or information technology. Any type of communication whether it is formal or informal, should include information that will assist in goal and objective achievement. Social workers are trained communicators and are capable of gauging what types of communicative tactics to audience members. This communication skill can be used when attempting to persuade or inform during inter and intra agency meetings. Participating as an NGO in times of disaster requires an understanding of how to plan for resource dissemination but without articulate communication about how, when, and where to disseminate resources, there is less likelihood that the resources will be consistently and efficiently delivered.

Yielding results from open-ended survey questions, process evaluations, and task assessment of staff, services, and programs throughout the life-cycle of disaster relief services serves as the sixth and final component of the planning model. A formal method of communicating the results will ensure that staff is knowledgeable of the progress that has been made, how well the program is achieving its outcomes, and which tasks need to be completed. GST uses a continuous feedback loop as a means of assessing its components to determine if changes in the input or throughput should be made. Discussing the process results with all staff initiates a feedback system that can assist in determining if inputs such as staff or material goods should be modified. “A feedback system is any method employed to help us know whether goals were achieved” (Ashman & Hull, 2009, p 357). The feedback system can incorporate survey, evaluation, and assessment tools with reports of the outcomes provided to all staff members. Documents, such as results from monthly reports and staff focus groups, can also be included to supplement the feedback system and serve as discussion topics with staff members. A visual display of the model is identified below as Figure 4.1.

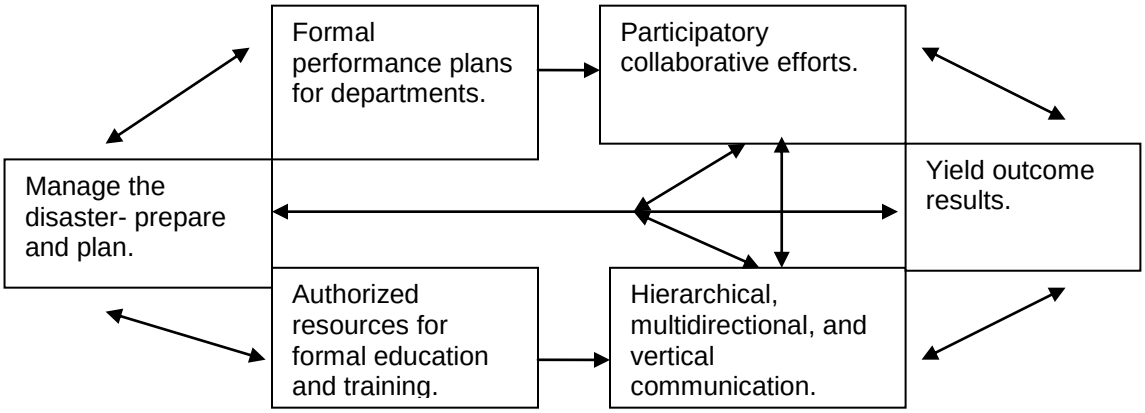


Figure 6.1 The MURPHY Planning Model

The MURPHY Planning Model, based upon study outcomes in conjunction with both theoretical and conceptual frameworks, can be used to plan how to best disseminate resources to victims.

6.3.1 Logic Model

A logic model displays how to assess outcomes of a resource delivery service for disaster relief victims. Inputs and outputs are resources that assist in achieving program

outcomes. An outcomes approach logic model is used in the form of Figure 6.2 to visually display the relationships between program participants, activities, and outcomes.

Inputs	Outputs	Throughputs	Short Term Outcomes	Medium Term Outcome	Long Term Outcomes
Funding Time Clients Staff Partners Facilities Goods	Staff Volunteers Clients Partners	Financial assistance Community referrals Individual service assessment	Immediate daily needs met Funds provided Case management	Decreased feelings of worry or concern Increased social support Increased knowledge & use of community resources Improved life satisfaction	Decreased level of stress Increased level of coping

Figure 6.2 Resource Delivery Logic Model

Practice implications may assist in strengthening programs and services for disaster relief victims, while research implications encourage using the GST as a framework to design and evaluate disaster relief programs and policy implications call for accredited emergency management educational programs. These implications will be discussed in the next section.

6.4 Implications

6.4.1 Practice Implications

There are several implications derived from the study that provides a platform for social work practice implications however, a broad approach is used to address these implications through a discussion of step one of the Murphy Planning Model.

Empirical research and study outcomes both emphasize the need for collaboration between NGOs not only during a disaster, but a need for coordination between entities before a disaster. Collaboration and networking efforts amongst NGOs during the pre-planning stages of disaster may lead to a higher indication that the collaboration and networking efforts will continue after the disaster strikes. Collaboration with NGOs to coordinate local relief activities can be accomplished through the design of an intra-agency system approach with regular interaction, task meetings, trainings, and preparation activities infused into the system approach. It may prove advantageous if the dissemination of resources to disaster victims

through this design type were explored as opposed to NGOs working independently in times of chaos. Agencies that work together, communicate, and collaborate with each other before disaster strikes are more likely to achieve homeostasis during times of disaster.

This can be achieved through an all-hazards approach during the pre-disaster planning phases. Initial intra-agency collaboration efforts can include the development of disaster management teams. “Disaster management teams are critical to the mass casualty incident response given the complexity of today’s disaster threats” (Briggs, 2005) The disaster management teams can assist in the execution of preparation and planning activities as identified in step one of the MURPHY Planning Model. The development to disaster management teams that are localized to specific zip codes can host regular task oriented meetings. Initial task meeting discussions should be focused upon not just managing the disaster, but designing and implementing logic models for goals and objectives pertaining to resource dissemination in times of disaster.

Aside from pre-disaster planning assistance, social service agencies can also contribute support in the area of community brokering. Social service agencies have knowledge of social programs, community services, and local structural capacities. Social service staff members are equipped with the knowledge of how to access community resources that serve to provide for the basic needs of people in need. This knowledge can be especially helpful when erecting tent cities devised to replicate pre-existing community services after a disaster has occurred.

6.4.2 Research Implications

The GST is used as a theoretical foundation for social science professions. “This holistic approach assumes that the whole is understood as a complex system that is greater than the sum of its parts. The analyst searches for the totality or unifying nature of particular settings- the gestalt.” (Patton, 2002, p 59) Research implications constitute a need for additional research to be conducted beyond the scope of this pilot study to not only identify practice implications, but to identify gaps in services and incorporate life preservation activities before,

during, and after the disaster occurs. The GST can be used beyond that of a theoretical framework for program development, implementation, and evaluation of disaster relief activities, and assist in the areas of inter and intra agency coordination. “Are We Learning to Make Better Plans?” (Brody, 2003) introduces the role of how systems theory, adaptive management and the impact in hazard mitigation directly encompass macro-level social work practice. Brody concludes that “adaptive management is a continuous process of action based upon planning, monitoring, researching, and adjusting with the objective of improving future management actions” (Brody, 2003).

Further research can also be conducted to further understand the potential impact of accredited education courses with on-going training of emergency managers, responders, and volunteers. The impact of accreditation and regular training could be impeding factors that limit the design of non-traditional thinking and eclectic approaches in the wake of disaster.

6.4.3 Policy Implications

The nation’s leading disaster management training entity does not offer disaster relief leadership course curriculum. For one to have such an important role, the absence of a formal solid foundation in the areas of leadership could impair the disaster relief responder or administrator with a limited ability to be inventive and proactive. Darlington (2000) concurs by stating

> “What the nation currently has is not a vision of needs, but rather a reactionary mix of courses that have been assembled to respond to specific laws aimed at specific hazards and disasters…leadership is needed with a vision of how to link theory and performance based training within a core curriculum of emergency management education” (p 137, 2000).

Each disaster poses different threats and impacts by which a specific ICS protocol may not have been designed. A summon to act quickly when there is not an existing protocol, if based upon leadership skills, may produce better effects than systematic procedures knowledge. “The ICS identifies functional requirements, not titles, to determine the organizational hierarchy of the

ICS structure. All disaster management teams must adhere to this structure to integrate successfully into the rescue effort" (Briggs, 2005) Further research is needed in the areas of training to address practicality, application, and leadership before, during, and after disaster.

For NGOs to adhere to the ICS it is important that they understand its purpose, arrangement, its application. The existing policy for NGOs to provide relief services does not require its staff to be knowledgeable about the ICS. Without a structured system that infuses regular trainings and drills, disaster responders may not know or understand the ICS or how to implement the system. Additionally, NGO agencies are not currently required to maintain credentials or a license for disaster participation. Disaster relief training must not only include basic principles of disaster but also include areas of analysis, critical thinking, and flexibility in an effort "…to adapt to external demands, the organization must operate as an "open system" (Gilberman 2003 p 168) to ensure that NGOs are truly prepared for disasters. Using study outcomes from both the empirical and current study results along with reflecting upon step three of the Murphy Planning Model, further research is needed to identify what types of training might impact critical decisions made before and during a disaster.

6.5 Limitations and Strengths

The study has four limitations and two strengths that will be discussed. First, there are only two approved questions explores with the study participants. While the two questions were open-ended and allowed for the answers to participants to provide responses based upon their exposure and perspective, several more questions could have been asked to gain additional disaster relief insight. Secondly, the number of study participants reached was less than the desired minimum of 15. This can be somewhat explained by the decline of the prior number of remaining TXVOAD NGOs that were members since the 2005 landfall, and NGO representatives preparing for deployment to the 2010 Haitian earthquake during the study data collection process. Thirdly, the total number of TXVOAD member partners (31) served as the sampling frame yielded to a small number of potential study participants to include in the study.

Lastly, over half of the TXVOAD member partners were not based in the state of Texas but actually located in other parts of the United States.

While there are limitations identified in this study, there are study strengths as well. Specific concepts were used in an effort to both establish credibility and decrease the amount of study limitations. Careful consideration was given to using these particular concepts to cause the readers to believe in the truth, accuracy, and significance of the study. Credibility and validity concepts that were used in the study are discussed.

Credibility refers to “outsiders concur that, given the data collected, the results make sense. In other words, the results are dependable and consistent.” (Lincoln & Guba,1985). TXVOAD partner members have two things in common- 1. They are a non-profit agency, and 2. They provide disaster relief support. The types of study participants represented disaster support perspectives that included radio alerts, a missing persons bureau, and home rebuilding. This point is significant as a means of showing the variety of participant perspectives. The variety of perspectives is helpful when attempting to increase credibility. Participants provided their own perspectives of disaster relief management in the form of an open-ended response and were invited to provide feedback if there was anything that they wanted to add to their transcript after the interview.

Researcher credibility “is dependent on training, experience, track record, status, and presentation of self” (Patton, 2002, p 552) Empirical research completed prior to conducting this study resulted in the development of support for the present research study. Conducting empirical research prior to conducting the interviews provided new insight to the study as opposed to creating researcher bias and being receptive to “openness to whatever emerges in the field” (Patton, 2001, p. 226) Based upon research conducted since 2005, the researcher has studied various aspects of disaster relief and presented findings in the form of the impacts of natural disasters on victims and secondary victims, developed models for disaster relief case management, and designed evaluation techniques for disaster relief agencies. Although it was difficult to abstain from asking leading questions during the interviews with the study participants

in an effort to gain further insight and avoid researcher reactivity, the researcher declined from making commentary during the interview and remained focused by asking only the IRB approved study questions.

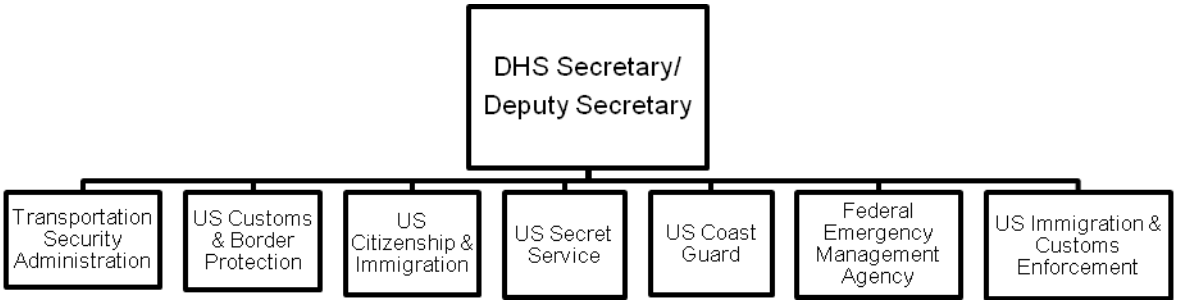
Qualitative validity can be established either through reaching credibility of the study participants, the researcher, or both. Due to the open-ended questionnaires used as the sole data collection method, the credibility and generalizability of the study participants may be in question. In an effort to decrease the level of truthful responses from the study participant, text quotes were pulled directly from the transcripts and incorporated into the study results as a means for the reader to not only see how the study participant responded to the study questions, but for the reader to also determine how the study findings can be applicable to other disaster situations.

6.6 Conclusion

The current study sought to develop a planning model for NGOs. NGO representatives were recruited from the TCVOAD member partner list. Interviews were conducted, transcribed and one theme was developed based upon an open coding process. A combination of the theme and subthemes from the study participants were combined with the frameworks from conceptual and theoretical perspectives to develop The MURPHY Planning model. Implications for social work, research, and practice were discussed. Study limitations include the limited number of study questions, a small sample size, a small sample frame, and out of state NGO locations.

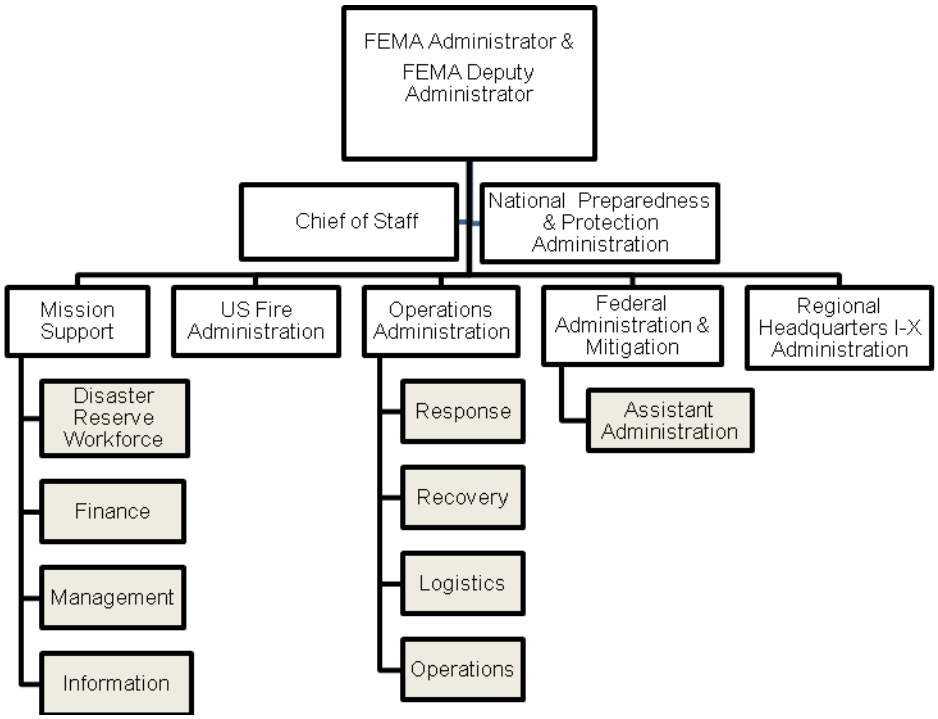
APPENDIX A

DEPARTMENT OF HOMELAND SECURITY (DHS) PRIMARY DEPARTMENT NAMES


DHS Secretary/
Deputy Secretary
Transportation Security Administration
US Customs & Border Protection
US Citizenship & Immigration
US Secret Service
US Coast Guard
Federal Emergency Management Agency
US Immigration & Customs Enforcement

APPENDIX B

THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) PRIMARY DEPARTMENT NAMES


FEMA Administrator & FEMA Deputy Administrator
Chief of Staff
National Preparedness & Protection Administration
Mission Support
US Fire Administration
Operations Administration
Federal Administration & Mitigation
Regional Headquarters I-X Administration
Disaster Reserve Workforce
Finance
Management
Information
Response
Recovery
Logistics
Operations
Assistant Administration

APPENDIX C

GUIDING QUESTIONS

1. If given the opportunity, how would you describe an ideal disaster relief program?”

2. How would you describe what worked and did not work while providing services to hurricane Katrina victims?

APPENDIX D

APPROVED INFORMED CONSENT FORM

MAR 0 3 2010
APPROVED

MAR 0 2 2011

Institutional Review Board

INFORMED CONSENT

PRINCIPAL INVESTIGATOR NAME: LaJuana J Hector

TITLE OF PROJECT: A Planning Model for Disaster Relief Agencies

INTRODUCTION: You are being asked to participate in a research study. Your participation is voluntary. Please ask questions if there is anything you do not understand.

PURPOSE: In person oral interview questions will be asked to help develop a model for NGOs to use as a template to more efficiently deliver resources to disaster victims.

DURATION : 120 minutes

PROCEDURES : In-person oral interviews will be held with you. During the interview, you will be asked two questions (1. If given the opportunity, how would you describe an ideal disaster relief program? and 2. How would you describe what worked and did not work while providing services to Hurricane Katrina victims?) and afforded time to respond to each question individually. Each interview will be voice recorded and later transcribed for analysis.

POSSIBLE BENEFITS: You will receive a copy of the completed dissertation if you choose to participate in the study. The final dissertation copy will include study outcomes and implications that the agency may be able to immediately implement.

COMPENSATION : There will not be any compensation offered.

POSSIBLE RISKS/DISCOMFORTS : While thinking about your interview responses, you may experience slight discomfort when recalling your work efforts when disseminating services and resources to victims of Hurricane Katrina.

ALTERNATIVE PROCEDURES/TREATMENTS: You have the right to decline participation or quit participation at any time of the study without suffering from any type of consequence or effect on your standing at the place of their employment.

WITHDRAWAL FROM THE STUDY: You may discontinue participation at any time without penalty or loss of benefits, to which you are otherwise entitled.

NUMBER OF PARTICIPANTS: It is expected for no more than a total of 31 participants will enroll in this study but you are the only representative from your agency.

CONFIDENTIALITY: If in the unlikely event it becomes necessary for the Institutional Review Board to review your research records, then The University of Texas at Arlington will protect the confidentiality of those records to the extent permitted by law. Your research records will not be released without your consent unless required by law or a court order. The data resulting from your participation may be made available to other researchers in the future for research purposes not detailed within this consent form. In these cases, the data will contain no identifying information that could associate you with it, or with your participation in any study.

REFERENCES

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th edition). Washington, DC: Author.

Baade, R.A., Baumann, R., & Matheson, V. (2007). Estimating the economic impact of natural and social disasters, with an application to hurricane Katrina. *Urban Studies, 44*, 2061-2076.

Benson, C., & Clay, E. J. (2004). Understanding the economic and financial impacts of natural disasters. *Disaster Risk Management Series, 4,* 1-134.

Birkland, T.A. (2004). Introduction: risk, disaster, and policy in the 21st century. *American Behavioral Scientist, 48,* 275-280.

Briggs, S.M. (2005). Disaster management teams. *Current Opinion in Critical Care, 11,* 585-589.

Brody, S.D. (2003). Are we learning to make better plans?: A longitudinal analysis of plan quality associated with natural disasters. *Journal of Planning Education and Research, 23*, 191-201.

Brown, L.M., Hyer, K., & Polivka-West, L. (2007). A comparative study of laws, rules, codes and other influences on nursing homes' disaster preparedness in the gulf coast states. *Behavioral Science Law, 25*, 655-675.

Brueggemann, W.G. (2006). *The practice of macro social work* (3rd edition). Belmont, CA: Brooks/Cole

Charmaz, K. (1983). Grounded theory method: An explication and interpretation" in Contemporary field research: A collection of readings, Emerson, R.M., ed., Boston: Little, Brown and Company, 109-128.

Chiesa, C., Laben, C. & Cicone. (2003). *An Asian pacific natural hazards and vulnerabilities atlas.* Retrieved on March 12, 2009 from http://ww.pdc.org/PDCNewsWebArticles/2003ISRSE/ISRSE_Chiesa_TS40_7.pdf

Community Council of Greater Dallas. (2006, April). *Hurricane news you can use.* Dallas, TX: Author.

Cosgrove, J.G. (2000). Social workers in disaster mental health services: The american red cross." *Tulane Studies in Social Welfare, 21,* 117-128.

Darlington, J. (2000). *The procession of emergency management: Educational opportunities and gaps.* Macomb, IL: Western Illinois University.

Eisenman, D.P., Cordasco, K.M., Asch, S., Golden, J.F., & Glik, D. (2007). Disaster planning

and risk communication with vulnerable communities: lessons from hurricane katrina. *American Journal of Public Health, 97*, 109-115.

Federal Emergency Management Agency. (2008, April 1). *History.* Retrieved on March 8, 2008 from http://www.fema.gov/about/history.shtm.

Federal Emergency Management Agency. (2006, April 16). *The disaster process and disaster aid programs.* Washington, DC: Author.

Galalbos, C.M. (2005). Natural disasters: Health and mental health considerations. *Health and Social Work, 30*(2), 83-86 (editorial).

Gillespie, D., & Danso, K. (2010). "Disaster Concepts and Issues. A guide for social work education and practice." Council on Social Work Education: Alexandria, Virginia.

Gelman, C. R., & Mirabito, D.M. (2005). Practicing what we teach: Using case studies from 9/11 to teach crisis intervention from a generalist perspective. *Journal of Social Work Education, 41*(3), 479-494.

Gilbelman, M. (2003). *Navigating human service organizations: Essential information for thriving & surviving in agencies."* Lyceum Books, Inc: Chicago, IL.

Harris, P. (2005). *Emergency training takes center stage:* Training and development. Retrieved on November 16, 2005 from findarticles.com/p/articles/mi_m4467/is.../ai_n21383065/

Hunter, M., & Pope, J. (2006). Stressed? No, we're ok, really, we are: Actually, we're on the edge, mental health experts say. *The Times-Picayune.*

Inam, A. (2005). *Planning for the unplanned: recovering from crisis in megacities.* New York, NY: Taylor & Francis Group, LLC.

International Federation of Red Cross and Red Crescent Societies. 1999. *World disasters report 1999.* Geneva: International Federation of the Red Cross and Red Crescent Societies.

Kansteiner, W. (2004). Testing the limits of trauma: The long-term psychological effects of the holocaust on individuals and collectives. *History of the Human Sciences, 17,* 97-123.

Kirschenbaum, A. (2004). *Chaos organization and disaster management.* New York, NY:Marcel Dekker, Inc.

Kirst-Ashman, K. K. (1993). *Understanding generalist practice* (4th edition)*.* Chicago: Neson-Hall Publishers. Chapters 1 and 9.

Kreuger, L.W., & Neuman, W.L. (2006). Social work research methods. Qualitative and quantitative
applications. Boston: Pearson Education, Inc.

Lascher, E. Jr & Powers, M. R. (2004). September 11 victims, random events, and the ethics of compensation. *American Behavioral Scientist. 48*(3).

Mathbor, G. (2007). Enhancement of community preparedness for natural disasters: The role of social work in building social capital for sustainable disaster relief and management.

International Social Work, 50, 357-369.

Matheny, A. C. (2001). The application of family systems theory to organizational consultation: A content analysis*. The American Journal of Family Therapy, 29*, 421-33.

Maxwell, J.A. (2005). *Qualitative research design: An interactive approach*. London: Sage Publications.

McGuinness, K.M., Coady, J.A., Perez, J.T., Williams, N.C., McIntyre, D.J., & Schreiber, M.D. (2008). Public mental health: The role of populations-based and macrosystems interventions in the wake of hurricane katrina. *Professional Psychology: Research and Practice, 39,*58-65.

.

Morris, S.S., & Wodon, Q. (2003). The allocation of natural disaster relief funds: hurricane mitch in Honduras. *World Development, 31*, 1279-1289.

Murphy, B.C. & Dillon, C. (2008). *Interviewing in action in a multicultural world.* Belmont, CA: Thomson Brooks/Cole.

National Hurricane Center. (2005). *Hurricane facts.* Washington, DC: Author.

National Hurricane Center. (2006). *Hurricane facts.* Washington, DC: Author.

National Response Framework. (2008). Department of Homeland Security. Washington, DC: Author.

National Flood Insurance Plan Overview. (2009). Federal Emergency Management Agency. Washington, DC: Author.

Neumayer, E., & Plumper, T. (2007). The gendered nature of natural disasters: The impact of catastrophic events on the gender gap in life expectancy, 1981-2002. *Annals of the Association of American Geographers, 97,* 551-566.

Nugent, W. R. (1987). Use and evaluation of theories. *National Association of Social Workers.* Spring.

Patton, Michael Quinn. (2002). *Qualitative Research & Evaluation Methods (3rd ed.).* Thousand Oaks, CA: Sage Publications.

Paul, B.K. (2006). Disaster relief efforts: an update. *Progress in Development Studies, 6,* 211-233.

Payne, M. (2005). *Modern social work theory.* Chicago: Lyceum. Chapter 3.

Payne, M. (2002) The politics of systems theory within social work. *Journal of Social Work.* 2(3). 269-292.

Pinkowski, J. (2008) *Disaster management handbook*. Boca Raton, FL: CRC Press.

Poling, T. (2007). *Many Katrina and Rita victims had no flood insurance-those who did made the buy of their lives.* Retrieved March 8, 2009 from http://www.mysanantonio.com/s?action=doLogout&rurl=/news/MYSA100205_1R_FloodInsurance_lae3713f_ht.

Reichgott, M. (2006). *As many as 500,000 hurricane katrina evacuees may need mental health counseling, officials say.* Retrieved on Sept 4, 2008, from http://www.medicalnewstoday.com/articles/39929.php.

Scriven, M., & Paul, R. (1997). Defining critical thinking. Critical Thinking Resource Community Homepage. Palo Alto College, California. Retrieved on March 24, 2006 from www.criticalthinking.org/articles/index.cfm

Segal, E. & Bruzy, S. (1998). *Social welfare policy, programs, and practice*. Itasca, IL: Peacock.

Select Bipartisan Committee. (2006). A failure of initiative. Final report of the select bipartisan a committee to investigate the preparation for and response to hurricane Katrina. U.S. Government Printing Office. Washington, D.C. Retrieved on April 24, 2006 from http://www.gpoaccess.gov/congress/index.html

Shaw, G., & Harrald, J.R. (2004). Identification of the core competencies required of executive level business crisis and continuity managers. *Journal of Homeland Security and Emergency Management, 3*,1-18. Retrieved on March 19, 2006 from http://www.bepress.com/jhsem/vol3/iss1/1

Smith, M., Lees, D., & Clymo, K. (2003). The readiness is all. Planning and training for post-disaster support work. *Social Work Education, 22,* 517-528.

Sobel, R.S., & Leeson, P.T. (2006). Government's response to Hurricane Katrina: a public choice analysis. *Public Choice, 127,* 55-73.

Supe, A., & Satoskar, R. (2008). Health services responses to disasters in Mumbai: sharing experiences. *Indian Journal of Medical Science, 62,* 242-251.

Tucker, P. (1995). Report of the Expert Panel Workshop on the Psychological Responses to Hazardous Substances. Agency for Toxic Substances and Disease Registry, U.S. Department of Health and Human Services. Atlanta, Georgia.

von Bertalanffy,L. (1968). *General system theory.* George Braziller, New York. Hartman, Ann. (1983). *Family Centered Social Work Practice.* New York, New York: The Free Press.

Windows to the Universe. (2008). *Water.* Retrieved on May 11, 2009 from www.windows.ucar.edu/tour/link=/earth/Water/overview.html&edu=high

Zibel, A., Leonard, C., & Paradis, T. (2009). *When economy bottoms out, how will we know?* Retrieved March 5, 2009 from http://news.yahoo.com/s/ap/20090307/ap_pn_bi_ge/economy_where_s_the_bottom

Zottarelli, L. (2008). Post hurricane katrina employment recovery: The interaction of race and place. *Social Science Quarterly, 89*, 592-607.

Zakour, M.J. (2005). Social work and disasters. Disciplines, Disasters and Emergency Management Textbook. Federal Emergency Management Agency Higher Education

Project. Retrieved on March 19, 2006 from http://training.fema.gov/EMIweb/edu/ddemtextbook.asp

Zhang, Y., & Wildemuth, B. M. (2009). Qualitative analysis of content. In B. Wildemuth (Ed.), Applications of Social Research Methods to Questions in Information and Library.

BIOGRAPHICAL INFORMATION

LaJuana J. Hector received her BSW from The University of Mississippi and earned an MSSW from The University of Tennessee. She has taught at The University of Texas-Arlington and Texas A&M University- Central Texas, and is currently working as the Vice President of Programs of a national non-profit agency headquartered in San Antonio, Texas. Her areas of interest include factors and impacts of varied types of violence; volunteerism; international social work; disaster relief management; crisis and trauma programs, interventions and techniques; program development; and the evaluation of programs and services. Her future plans include teaching undergraduate and graduate students and publishing study outcome findings in the form of journal articles and book publications.