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**Grounded Theory Study of the Critical Influences Utilized by
Registered Nurses When Deciding to Be an Affiliated Volunteer
with a Disaster Response Organization**

Linda K. Connelly

GROUNDING THEORY STUDY OF THE CRITICAL INFLUENCES UTILIZED BY
REGISTERED NURSES WHEN DECIDING TO BE AN AFFILIATED VOLUNTEER
WITH A DISASTER RESPONSE ORGANIZATION

DISSERTATION

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Abstract

Background: The American Red Cross and other disaster response organizations depend largely on registered nurse volunteers in the United States' responses to disasters.

Volunteer registered nurses provide medical care to all persons involved in a disaster and are essential to effective disaster response. Often an insufficient number of trained nurses volunteer for disaster duty, affecting the safety of victims and surrounding communities.

Purpose: The purpose of this qualitative grounded theory study was to explore and gain understanding about the critical influences that registered nurses use to decide to become an affiliated volunteer with a disaster response organization.

Philosophical Underpinnings: Symbolic interactionism was used as a study philosophical framework that focuses on the subjective aspect of life as applied to disaster response volunteer registered nurses. Pragmatism was used to further elucidate the nurses' lived realities in disaster situations, their motivations in interactions with individuals in their social environments, and the practical consequences of their actions to determine meaning, truth, or value.

Methods: A qualitative research method, grounded theory, was employed with an asynchronous web-based interview posted on Qualtrics. Qualitative data analysis was used to extract themes and patterns in participants' responses to five open-ended interview questions and generate a theoretical model.

Results: Thirty-five registered nurses completed a short demographic survey and the interview questions, 33 women, 2 men, primarily Caucasian, age range 24-72. Four major themes emerged regarding the critical influences on registered nurses to volunteer. The core theme was "Gain by giving when asked," with helping others and personal

satisfaction major motivators. The major themes were Gratification (great satisfaction, personal rewards of helping), Asking (by others, many sources), Necessity to Be Prepared and Informed (be ready, resilient, and self-reliant; stay abreast of training), and “Do It” (follow one’s heart and do not pass up the experience).

Conclusion: Findings and the theoretical model generated supported the critical influences in registered nurses’ decision making process in volunteering for disaster duty. Study results can be applied to nursing education, research, and clinical practice to help disaster organizations develop effective strategies for measurement of volunteers’ competencies, training and education, recruitment, and retention.

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I recognize also that this research would not have been possible with the responses of the American Red Cross nurses, and I express my gratitude to all of them.

DEDICATION

I dedicate this dissertation to my family and many friends. A special feeling of gratitude goes to my loving parents, Bernard Joseph Collins and Viola Frances Collins, whose words of encouragement and push for tenacity ring in my ears today and have sustained me throughout the long process.

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CHAPTER ONE

PROBLEM AND DOMAIN OF THE INQUIRY

Since the events of September 11, 2001 (9/11), the world has undergone multiple changes. The number of disasters caused by humans and the number of people affected by these disasters have risen exponentially (Llanos, 2011). Terrorism and naturally occurring catastrophic events provide fertile ground for nursing emergency preparedness (Llanos, 2011). According to Veenema (2003), disaster preparedness has become an international concern because the average frequency of disasters worldwide is once every week. As disaster preparedness comes to the forefront of communities, no nation can remain complacent about disaster response and preparedness (Veenema, 2003).

A significant element of any successful disaster response is the nursing team. Registered nurses are the largest group of health professionals across the country (U.S. Department of Labor, 2012) and as such constitute a significant element of any successful disaster response. Given the frequency of disasters, all disaster response teams need an increase in affiliated trained registered nurse volunteers (Agency for Healthcare Research and Quality [AHRQ], 2011).

An exploration of the perspectives of nurses who actually have responded and work in a disaster must be conducted so that researchers will (a) understand better why nurses may elect not to respond during future disasters (Stangeland, 2010), and (b) understand and appeal to the motivations and reasons that nurses who are needed do respond and volunteer.

Background of the Study

The American Red Cross (ARC), the largest provider of volunteer workers for the Federal Emergency Management Agency (FEMA), depends on registered nurse volunteers (American Red Cross, 2006). The ARC is an integral part of the United States' first line of disaster response. Volunteer registered nurses assume responsibility for providing medical care to all persons involved in a disaster. Therefore, it is important to explore the critical influences of registered nurse volunteers who become affiliated volunteers with the ARC can so they can be recruited and educated before a disaster takes place. The American Nurses Association (ANA, 2010) *Code of Ethics for Nurses* delineates nurses' relationships with their patients and nurses' commitment to promote and protect patients' health. Thus, many nurses may feel a community obligation to service when a disaster strikes (Peterson, 2006). Current national disaster plans are based on two assumptions: first, that the United States will have a sufficient number of registered nurses available and willing to respond; and second, that all of the nation's registered nurses possess the education, training, knowledge, and skills required to respond to disasters (Robert Wood Johnson Foundation, 2008). There are, however, no assurances that either assumption is true.

The assumption that a sufficient number of registered nurses will be available and will respond may be erroneous. When a disaster strikes, disaster managers have sometimes been overwhelmed by the outpouring of "good will" from the spontaneous unaffiliated volunteerism of registered nurses (Orloff, 2011, p. 24). Although this outpouring is commendable, the nurses may not be sufficiently trained to cope in disaster situations (Orloff, 2011). Federal, state, and local governments do not possess the

resources or mandates to provide the level of professional trained volunteers necessary to address needs during a disaster. Although attempts were made after 9/11 to increase overall national preparedness, no systematic effort has been made to recruit or prepare nurses to respond to a major disaster (Robert Wood Johnson Foundation, 2008).

One of the most difficult elements of a disaster is handling the spontaneous or unaffiliated volunteer (Orloff, 2011). The success of a response is dependent on all individuals or teams understanding their roles, responsibilities, and the chain of command within the disaster response (American Hospital Association [AHA], 2005). Well intentioned, spontaneous unaffiliated volunteers may not have been vetted through a system with regard to licensing and certification. Nor may they have the proper education and training to provide appropriate patient care and keep patients and themselves safe. Thus, spontaneous unaffiliated volunteers often cannot be used during a disaster (Orloff, 2011).

Additionally, nurses who desire to volunteer may misunderstand the appropriate venues. For example, the American Nurses Association Chief Executive Officer verified that after a disaster occurs the ANA receives hundreds of phone calls from registered nurses ready to volunteer (M. Weston, personal communication, February 17, 2013). A majority of these nurses are immediately ready to purchase tickets to fly to the disaster site and ask to whom they should report upon arrival. The ANA representative must explain that the ANA is not involved in the disaster response or recovery process, and the representative refers the nurses to the American Red Cross.

Part of the problem is that disaster response organizations such as the American Red Cross do not have an understanding of the critical influences and processes that

registered nurses use to decide to become affiliated volunteers with such an organization before a disaster strikes. The actual prevalence of registered nurses who volunteer during a disaster or affiliate with a disaster response organization before a disaster is unknown.

Researchers believe that registered nurses who are trained in disaster response play a key role in disaster healthcare (Suserud & Halijamae, 2008; Veenema, 2006, 2009).

Registered nurses who are trained and prepared have better coping skills when they volunteer. Thus, their volunteering and affiliation are imperative with a disaster response organization before a disaster occurs (Suserud & Halijamae, 2008; Veenema, 2006, 2009).

Since national response plans for disasters call for the establishment of nonhospital field medical facilities that are staffed by medical professionals such as registered nurses, it is imperative that the critical influences that motivate registered nurses to volunteer before disasters be investigated. The time to prepare and be ready to volunteer is not when the disaster occurs, but before the disaster strikes (Peterson, 2006). Advance preparation enables registered nurses' knowledge, skills, and behaviors to be well utilized for the benefit of the disaster casualties (Peterson, 2006).

The Chief Nursing Officer of the American Red Cross stated that registered nurses who have affiliated with the ARC prior to the disaster are important for utilization during a timely disaster response (S. Stanley, personal communication, November 13, 2012). According to Stanley, recruiting registered nurses before a disaster would allow the American Red Cross to deploy them on short notice and provide timely and effective nursing care. Recent spring tornadoes, winter storms, hurricanes, and tornadoes have required thousands of registered nurses. In order to conceptualize the ideal disaster

response plan, a robust registered nurse corps that is educated and competent would maximize the American Red Cross's capacity to respond to disasters (S. Stanley, personal communication, November 13, 2012).

The purpose of this study was to discover and gain a comprehensive understanding of the critical influences utilized by registered nurses who decide to volunteer for disaster response and become affiliated with disaster response organizations before a disaster occurs. If the disaster response organizations reach a better understanding of this decision process, they will be in a more suitable position to develop effective strategies for volunteer recruitment, retention, measurement of competencies, and education of volunteers (Orloff, 2011).

Statement of the Problem

When an organization must deal with a registered nurse volunteer who is not adequately knowledgeable or trained for disaster care, an additional burden at the time of a disaster can be placed on disaster managers and staff (Weiner, 2006). Rather, the properly trained volunteer, a "force multiplier" (Orloff, 2011, p. 4), acts according to training and with integrated coordination. Planning and training are critical to optimize effective initial disaster response. Coordinated and timely response to a disaster by registered nurses depends on a competent workforce that is prepared to meet the needs of the mass casualty population (Weiner, 2006).

Spontaneous volunteerism can overwhelm a response system; unless the volunteerism can be planned and coordinated, volunteers can confuse and impede aid attempts rather than increase aid (Merchant, Leigh, & Lurie, 2010). After a disaster strikes, many registered nurses ask, "How can I help?" However, the development of

expertise to respond to disasters and terrorism events requires considerable training beyond traditional nursing duties (Baldwin & Wilson, 2008). Evidence suggests that the degree to which health professionals are credentialed and educated in advance for a disaster response directly affects the extent to which disaster sites can utilize the healthcare professional volunteer (Baldwin & Wilson, 2008).

Despite the introduction of policy and recruitment efforts by the American Red Cross and Medical Reserve Corps (MRC), local and state organizations sponsored by the U.S. , Office of the Surgeon General (Hoard & Tosatto, 2005), registered nurses' responses may not be coordinated or managed for disaster planning, nor have the factors contributing to nurses' responses for volunteering been examined. Spontaneous or unaffiliated volunteers who appear on the disaster scene may not have the necessary skills to give truly helpful aid and may even become a distraction to disaster managers. If such volunteers are used, generally the disaster leadership team underutilizes their skills, knowledge, and abilities because the volunteers cannot be easily integrated into the existing response network (Hoard & Tosatto, 2005). Such experiences often leave individuals who spontaneously volunteered with feelings of dissatisfaction, disappointment, and even anger towards those who manage the response. Therefore, more insight and information are necessary to understand, recruit, and appeal to registered nurses who volunteer and affiliate with a disaster organization such as the ARC.

Purpose of the Study

The purpose of this qualitative grounded theory study was to discover and gain a comprehensive understanding of the critical influences utilized by registered nurses who

decide to volunteer for disaster response and become affiliated with a disaster response organization before the disaster occurs. If disaster response organizations gain a better understanding of this decision process, they will be in a more suitable position to develop effective strategies for volunteer recruitment, retention, measurement of competencies, and education of volunteers. Implementation of such strategies will lead to greater and more effective utilization of registered nurses who volunteer in times of disaster response.

Research Question

The overarching question for this qualitative grounded theory study was the following: What are the critical influences that registered nurses utilize in their decision making process to become an affiliated volunteer with a disaster relief organization?

This question was used to formulate the interview protocol for participants.

Philosophical Underpinnings

The philosophical underpinnings used in this research project to study the phenomenon derive from the qualitative paradigm. According to Creswell (1998), a qualitative study is defined as an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants and conducted in a natural setting. Qualitative research places emphasis on understanding through close examination of people's words, actions, and records. Qualitative research also examines the patterns of meaning that emerge from the data, and these are often presented in the participants' own words. The task of the qualitative researcher is to find patterns within those words and actions and to present

those patterns for others to inspect while at the same time adhering as close as possible to the construction of the participants' worlds as they originally experienced it.

A qualitative approach allows the researcher to acquire knowledge based on a constructivist perspective, flowing from participants' knowledge and experiences, with the intent of developing a theory or a pattern from the processes of an identified social or human problem (Creswell, 2007). The qualitative paradigm uses a multimethod focus that involves an interpretive, naturalistic approach to the problem (Denzin & Lincoln, 1994). This focus allows the researcher to study the problem in the natural setting and explore the underpinnings of the phenomenon in question.

A paradigm is essentially a worldview, an entire framework of beliefs, values, and methods within which research takes place. It is within this worldview that researchers work. Thus, three philosophical and methodological foundations undergird this study, grounded theory, symbolic interactionism, and pragmatism.

Grounded theory. Grounded theory is most useful when the goal is a framework or theory that explains human behavior in context. This study's purpose was to explore the critical influences and processes that registered nurses use to decide to become an affiliate volunteer with a disaster response organization. As a result, the goal was to develop a theory grounded in the participants' experiences and actions.

The grounded theory tradition was developed by two sociologists from the University of California, Glaser and Strauss (1967). Glaser, trained in quantitative methods, and Strauss, trained in qualitative methods, collaborated using components of the two methods and formulated the discovery of grounded theory tradition when searching for an understanding of the meaning of dying (Glaser & Strauss, 1967). Since

their initial work, these founders have used grounded theory to explain or uncover the meanings of different phenomena in nursing as well as other behavioral fields that lead to theory development. Human behaviors related to health issues, developmental transitions, and situational challenges are well suited for grounded theory research in nursing. It captures the sociology process within the social context.

Grounded theory generates theory inductively from social research. Through analysis of data, categories are delineated and concepts are extracted. The theory assumes that individuals sharing common circumstances experience similar meanings, thoughts, and behaviors. Grounded theories are useful for directing nursing practice because they are explanatory theories of human behavior within a social context. In grounded theory, methodology is used to specifically examine people's actions and interactions, and these make it an ideal research method for nursing research (Leedy & Ormrod, 2010; Polit & Beck, 2004).

Through keen observation and data gathering, the researcher explores basic psychological processes at play in the phenomenon of interest without regard to culture, race, or place (Glaser, 1978). Grounded theory is a research approach for the development of middle range theory at a substantive or formal level (Glaser, 1978).

The studies by the founders of grounded theory suggest that key underpinnings are symbolic interactionism and pragmatism. In his 1998 writing, Glaser explicitly stated that an assumption of grounded theory is that people actively shape the worlds they live in through the process of symbolic interaction and that life is characterized by variability, complexity, change, and process. Grounded theory suggests that symbolic interactionism and pragmatism inform the underlying assumptions of the method (Glaser, 1998).

The grounded theory tradition allows a theory to be developed from the data collected, in contrast to the standard research approach of testing a hypothesis or theory with data. “Grounded theory means that a theory was derived from data that is systematically gathered and analyzed throughout the research process” (Strauss & Corbin, 1998, p. 12). According to Wuest (2006), Glaser and Strauss mentioned little regarding the philosophical underpinnings of grounded theory. However, philosophically, symbolic interactionism is a perfect fit for this tradition as it addresses the human actions based on how individuals and groups interpret or give meaning to their lives. The description of these meanings may lead to theory development, which is the core of grounded theory.

Symbolic interactionism. Blumer, a sociologist in the early 1930s, defined symbolic interactionism as a framework that focuses on the subjective aspect of one’s social life rather than on an objective point of view (Blumer, 1969). He pointed out that humans are pragmatic actors who continually adjust their behaviors to the actions of others or to interactions with things and interpret them symbolically. In turn, humans treat their actions and those who perform them as symbolic objects.

Blumer (1969) further stated that “this process aids the persons’ ability to think about and react to their own actions” (p. 45). The concepts that define this framework are (a) meaning, which refers to the construction of one’s social reality; (b) language, which is the source and symbols used to communicate the meaning; and (c) thought, which is the process of taking the role of another that is determined from one’s meaning.

Blumer (1969) referred to symbolization as the process of ascribing meaning to things, people, and events such that they elicit particular feelings and actions.

Interactionism suggests that phenomena exist only in relation to each other and can only be understood by considering interactions and interactional contexts. Snow (2001) expanded tenets reframing the principles of symbolic interactionism as interactive determination, symbolization, emergence, and human agency. Interactive determination suggests that phenomena exist only in relationship to each other because interactions are problematic and are therefore worthy of observations and analysis. By focusing on what is taking place in a particular social context, symbolic interactionism allows for the identification of social, emotional, or cognitive change as it emerges (Snow). The final expanded tenet of human agency refers to the “active willful nature of human actors” (Snow, p. 373). This nature drives people toward some sort of corrective action while taking into account the social or cultural constraints or expectations.

Symbolic interactionists stress that people construct their realities from the symbols around them through interactions; therefore, individuals are active participants in creating meaning in a situation (Benzies & Allen, 2001). With application to the present study, the meanings that registered nurses ascribe to the decision making process deciding to become an affiliated volunteer with a disaster response organization could be constructed based on their social interactions.

Pragmatism. Glaser and Strauss (1967) drew on the American philosophical tradition of pragmatism, particularly the work of Charles Pierce and early symbolic interactionists George Mead and Charles Cooley (Glaser & Strauss, 1967). Pragmatism emphasizes practical consequences as constituting the essential criteria in determining meaning, truth, or value. That is, the meaning of an idea or a proposition lies in its observable practical consequences.

Pragmatism begins with an experience as an interactive process involving individuals in their social and natural environments. Pragmatic philosophers situate human behaviors by focusing on individuals' lived realities. This view challenges the prevailing behaviorists' insistence that behavior is explained by observable stimuli alone. Pragmatists have rejected the idea that scientific truth reflects an independent external reality and argued instead that "truth" results from both the act of observation and the emerging consensus within a community of observers as they make sense of what they have observed (Suddaby, 2006, p. 633).

Pragmatism supports researchers who seek revised understanding for the purpose of making useful change through inductive exploration of diverse situated human experience with reflective confirmation and use of applicable knowledge. Differences in perspectives are valued and provide a basis for reciprocal problem solving. Problem-solving draws on existing knowledge and resources for an ongoing revision of the understanding that "the goal of grounded theory is to generate a theory that accounts for a pattern of behavior which is relevant and problematic for those involved" (Glaser, 1978, p. 93). According to James (1970), pragmatists "search for the truth," and pragmatism is the second concept that underpins grounded theory (p. 201). In addition, James stated "that truth is made true by events and its verity is in fact an event, or a process; this process verifies itself" (p. 20). Thus, truth cannot be obtained from an existing theory; rather, it must be developed from inductive data with continuous empirical verification. Pragmatism gives primacy to the humanistic and spiritual rather than the material values of life. Theoretical knowledge is less valued, and the goal is transformation of perspective and understanding (Wuest, 2006).

Assumptions of grounded theory. Grounded theory is guided first by the assumption that people make sense of their environments, although their worlds may appear disordered (Hutchinson, 1993). According to Glaser and Strauss (1967), grounded theorists base their research on the assumption, second, that each group shares a specific social psychological problem that is not communicated. Hutchinson (1993) posited that when unarticulated problems and the resultant basic social psychological processes are uncovered and conceptualized, the researcher will be able to explain and predict the behavior of the group. In the present study, the researcher attempted to conceptualize the constructs used by nurses to explain their critical influences and processes when deciding to be an affiliated volunteer with a disaster response organization. This conceptualization led to the development of a theory illustrating how nurses reach this decision.

Significance of the Study

The findings from this study should have significance for the discipline of nursing as well as other disciplines. This study of processes and critical influences used by registered nurses to volunteer prior to the disaster has significance for nursing knowledge from several perspectives, including education, practice, research, and public policy.

Significance for nursing education. Information gained from this study may increase awareness and understanding among nursing students, practicing registered nurses, nursing educators and faculty, and nursing leaders of the critical influences on registered nurses in their decisions to become affiliated volunteers with a disaster response organization. The International Council of Nurses (ICN; Kingma, 2008) declared disaster nursing a priority because of the changing global climate and environments, technical progress, and the likelihood of increased disasters. Therefore, the

focus of ICN is strengthening the Nursing Disaster Response Network and forging partnerships aimed at improving disaster relief coordination and capacity building.

Identification of knowledge gaps can provide a framework for promoting standardized education and preparation in disaster healthcare and may also help stimulate a research agenda (Kingma, 2008). These goals will allow registered nurses with appropriate education and training to deploy through established channels so that their skills, knowledge, and abilities can be used appropriately to care for those injured during a disaster.

Education would include the legal and regulatory framework regarding the disaster so that both those affected and volunteers will be as safe as possible. According to Kingma (2008), the research priorities of the American Organization of Nurse Executives (AONE, 2009) encourage education efforts to support their strategic goal of disaster preparedness. Study findings could contribute in this regard.

Significance for nursing practice. Nurses are in an optimal position to assist in providing a framework applicable to clinical practice that could be used to build a persuasive message for recruitment and retention of registered nurses to volunteer before a disaster (Peterson, 2008). Such a framework may allow the disaster response organization before the disaster to establish and retain a registry of volunteer nurses who have the competencies and skills to respond. The study findings may help chief nurses of volunteer organizations to recruit and retain registered nurses so that in disaster planning the leaders know the number and competencies of volunteers. With the focus on recruitment, chief nurses will be able to preverify and validate volunteer nurses' licensures, providing them access to disaster training. Such knowledge of the abilities of

registered nurses, their contact information, and professional license numbers is imperative to successful disaster readiness and response.

Findings may further help chief nurses reduce the average turnover, which could be significant because of potential economic and productivity savings from improved retention of trained affiliated volunteers. Rather than adopt a “one size fits all” approach to volunteer recruitment and training, leaders and organizations may be better served by creating advertisements and recruitment materials that address more directly the various motivations for volunteerism (Riggio & Orr, 2004). Chief nurses may consider developing volunteer strategies that reflect these distinctions and can then add strategic professional development of volunteers in their organizations.

Significance for nursing research. Nursing research is needed to focus on those processes and critical influences that registered nurses use to decide to volunteer before a disaster. This study addressed the research priorities of the AONE (2009), which support their strategic goal of disaster preparedness. The study also addressed the current research focus mission of the Agency for Healthcare Research and Quality to empower communities and healthcare systems to support all people by enhancing system capability and preparing for urgent and emergent demands and needs (Burns & Grove, 2005).

Further, the Fiscal Year 12 American Red Cross Chief Nurse initiatives included nursing performance and outcome metrics (American Red Cross, 2011). The focus of this initiative was demonstration that nursing integration into the American Red Cross effort prior to disaster deployment makes a measurable difference (S. Stanley, personal communication, December 13, 2012). In the 10th edition of the ARC National Nursing Committee report Dr. Sharon Stanley stated that nurses operate across all ARC business

lines and lead more than one. Registered nurses are collaborating with all business lines of the Red Cross to re-engineer the disaster health system (Stanley, 2013).

Since nurses are invaluable to disaster response efforts, more research is necessary to validate the findings from generic studies of healthcare services personnel as they correlate to nursing personnel and clarify the needs of nurses who respond to disasters. Existing literature does not adequately describe the needs of nurses while working during disaster situations or elucidate why nurses do or do not respond (Stangeland, 2010). Present study results should add to understanding as well as the literature, provide impetus for further studies into disaster volunteerism of registered nurses, and aid the AONE (2009) initiative.

Significance for nursing health/public policy. In 2002, Congress passed the Public Health Security and Bioterrorism Preparedness and Response Act, Public Law 107-188. This law was a reaction to organizational inadequacy to quickly verify the names and credentials of volunteer health professionals. Congress sought to establish a system that would facilitate the ability of each state and local authorities to quickly utilize volunteer health professionals during a disaster (AHA, 2005). Given this national policy emphasis on volunteerism and the challenge facing health and human services in attracting volunteer support, there is a need for further research on volunteer service in the health and human services (Marx, 1999).

This study will hopefully increase the body of knowledge by a description the critical influences of registered nurses who volunteer before and during a disaster, and possibly become the basis for a pilot for the development of a standardized volunteer registry system of registered nurses for disaster response. This registry could evolve into

national and state policy settings for establishment of an organized approach for the utilization of nursing personnel who volunteer to respond to disaster to ensure the efficient, effective, and safe mobilization of volunteer registered nurses (Asaeda, Cherson, Richmond, Clair, & Guttenberg, 2003).

Scope of the Study

This study utilized English-speaking registered nurses who were or are presently an affiliated volunteer with the American Red Cross or another disaster response organization. Participants had to have participated in a disaster response situation, and the scope was delimited to registered nurses in the state of Florida.

Limitations of the Study

Five limitations were noted for this study. First, the small number of participants, although sufficient for qualitative research (Creswell, 2007), and limited geographical area from which participants were drawn could limit generalization of the results to a larger population of nurses, such as those in the entire United States (Strauss & Corbin, 1990). Second, the researcher is fluent only in English, which limited participants to those who could respond to the online interview protocol in English. Third, because the interviews were offered on the Internet, participants may have been limited to those who had Internet access at home, work, or through public resources, and were computer proficient. Fourth, web-based data collection is essentially unsupervised, so the researcher had no knowledge of any problems or misinterpretations that might have occurred among the participants. Fifth, in web-based interviews the researcher is unable to read participants' facial expressions and body language, make eye contact, hear their

tone of voice, or ask probing follow-up questions. Thus, nuances and subtle meanings in responses may have been missed.

Chapter Summary

This chapter discussed the importance of a study on registered nurses who respond to disasters. Registered nurses are key in successful disaster responses and are strategically positioned in disaster responses. Therefore, it is important to explore critical influences of registered nurses in their decisions to become affiliated volunteers with the American Red Cross or other disaster response organizations. To date, nursing's affiliated volunteer response effort has not been coordinated or managed within the traditional disaster planning and response framework.

The purpose of this study and the overarching research study question were identified in this first chapter. Also discussed were the philosophical underpinnings of the qualitative method of research, the development of grounded theory, and its components. Significance of the study findings were discussed in terms of nursing education, practice, research, and public policy, and the scope and limitations of the study were identified. Chapter Two presents a review of the pertinent literature.

CHAPTER TWO

REVIEW OF THE LITERATURE

The purpose of this qualitative grounded theory study was to discover and gain a comprehensive understanding of the critical influences utilized by registered nurses who decide to volunteer for disaster response and become affiliated with a disaster response organization before the disaster occurs.

This chapter presents a literature review of information and studies relevant to the study topic. Literature reviews are conducted to generate a picture of what is known and not known about a particular problem to be investigated. Reviews indicate whether adequate knowledge exists to make changes in practice or whether additional research is needed (Burns & Grove, 2007).

To locate pertinent literature for this study, with ProQuest Direct and EBSCO search engines, the following electronic data bases were accessed: the Cumulative Index of Nursing and Allied Health Literature (CINAHL), Homeland Security Digital Library, Dissertation Database, Educational Resources Information Center (ERIC), PsychINFO, Medline in PubMed, and the Social Science Index. The search was limited to the English language and to articles published after 1970. The following keywords and phrases were used to search the literature: *volunteering*, *affiliated volunteers*, *disasters and volunteers*, *disaster and registered nurse response*, *motivation of volunteers*, and *volunteers in disaster response*. The multiple searches led to the following content areas relevant to the critical influences nurses utilize to volunteer in disaster situations: historical perspective, general volunteering, theoretical literature, nursing volunteerism, disaster nursing competencies, and experiential context.

It must be noted that the literature review revealed few methodologically sound studies that focus on the motivation to volunteer, and fewer studies of registered nurses who volunteer before disasters or disaster response. Disaster nursing literature is primarily anecdotal in nature, revealing some of the motivational processes for registered nurses who volunteer during or after disasters. For example, Schlenger and Jernigan (2003) reported on disaster nurses' shared emotions resulting from their disaster work. The emotions included were fear, sorrow, uncertainty, and anger, with the researchers' conclusions that these emotions are usually self-limiting. In another article, a disaster nurse shared her story of volunteering with the American Red Cross during Hurricane Katrina and shared similar emotions (Iacono, 2006). Nurses working during a tropical storm in Houston, Texas, articulated a number of common concerns about working conditions, such as food and rest, expressing worry about their personnel health because of the lack of adequate rest (Sebastian et al., 2003).

The actual perceptions and lived experiences of registered nurses who have volunteered have been sparsely reported in the literature. For example, Forgione, Owens, Lopes, and Briggs (2003) described the experiences of nurses orienting to new units working in conditions they were not accustomed to. Stangeland (2010) noted the plethora of literature regarding emergencies and disasters, as well as nurses' perspectives and their intent to respond to future disasters. Frank and Sullivan (2008) commented on the paucity of articles describing the lived experience of nurses who volunteered with the American Red Cross during hurricanes.

According to Veenema (2009), the vast majority of the studies and theories related to this issue have been framed in noncatastrophic events during routine

volunteering. Most often absent in the literature is a broader understanding of registered nurses' experiences, as described through their own eyes, studied in their specific contexts, and analyzed and synthesized into a new theory that has significance for both nursing and volunteerism.

Historical Perspective

Americans have a rich history of commitment to volunteer service and volunteerism on a large scale through nonprofit organizations (ARC, 2006).

Volunteerism is deeply rooted in the United States, as evidenced by Clara Barton's founding of the American Red Cross in 1881 to aid the country in the times of war and national disaster (ARC, 2006; Weider History Group, 2013). Thousands of women served as volunteers during the Civil War (Long, 2011). Clara Barton and Dorothea Dix organized a volunteer nursing corps during the Civil War to help care for wounded soldiers. Although Dix was not a nurse, she organized female nurses to march on Washington, DC, demanding that the government recognize nurses' desires to aid the Union's wounded (Holland, 2009).

Two other nurses who were in the forefront of volunteering were Hannah Ropes and Louisa May Alcott (Weider History Group, 2013). In her book *Hospital Sketches*, Alcott (1863) described how every wounded soldier deserved care from a nurse as well as sanitation measures. Another nurse, Harriet Tubman, who was African-American, was the best known for her distinguished service as a Civil War nurse. She moved from camp to camp using her nursing skills and extensive knowledge of the healing properties of roots and herbs. Another African-American nurse became a protégé of Clara Barton.

Susie King Taylor later wrote a book of reminiscences filled with details of volunteering in camp hospitals (Holland, 2009; Weider History Group, 2013).

In 1899, the International Council of Nurses was established and was the first international organization for healthcare professionals. The originating members were the United States, Great Britain, and Germany, and the major objectives include advancing the nursing profession and establishing a worldwide organization of nurses. The ICN hosts conferences on disaster nursing, and this topic has been one of priorities since its inception (ICN, 2003).

General Volunteerism

Understanding the motivations to volunteer is suggested by numerous authors to be of great assistance to the managers of volunteers in their recruitment, selection, placement, and ultimate retention of volunteers (Clary, Snyder, & Ridge, 1992; Cnaan & Goldberg-Glen, 1991; Vineyard, 2001). Research involving the complex issue of affiliated volunteer motivation does not include many articles concerning registered nurses who volunteered before disasters. Therefore, this literature review included research on motivators first for affiliated volunteering in general and second for affiliated volunteering during disasters.

A rich body of research on volunteerism emerged in the 1970s. Pitterman (1973) provided some early insights into understanding older Australian volunteers and their motivation. With no identification of the research design, Pitterman compared the motives of older volunteers to Maslow's (1954) hierarchy of needs. Pitterman found that the main motivational classifications for older individuals' decisions to volunteer were altruistic, social, or material. In his comparison of Maslow's hierarchy to Herzberg's

(1959) motivation-hygiene theory, Pitterman found that the older adults who volunteered desired to reaffirm the significance of their lives and increase their sense of personal worth. For the older adults, the volunteer work had to fulfill these needs and reduce dissatisfaction. Pitterman thus concluded that the perspective for understanding the dynamic operations of the needs of volunteers is the key to retaining them.

Tapp and Spanier (1973) conducted a study comparing the attitudes and motivations of 36 crisis telephone line volunteers (mean age 25) to those of 34 college student volunteers (mean age 18). The volunteers had more years of education (15.2) than the college students (13.6). Data were collected with the Tennessee Self-Concept Scale, the Personal Orientation Inventory, and the Self-Disclosure Questionnaire. Results indicated that hot-line crisis volunteers viewed themselves more positively than did the college sample, particularly in the domain of moral-ethical perception ($p < .05$). The crisis volunteers also scored higher on measures of spontaneity, self-acceptance, and capacity for intimacy ($p < .001$), time competence, inner-directedness ($p < .01$), and self-actualizing values ($p < .05$).

The study by Tapp and Spanier (1973) examined the larger construct of self-concept but provided few direct links to the existence of altruistic behavior among these groups of volunteers. The subjects of the study implied that the role of self-concept is fundamental to the volunteer process, because findings showed that the crisis volunteers were largely self-confident and self-accepting.

In 1976, observing that little was known about either the motivations or personality aspects of volunteers, Howarth investigated the personality profiles of volunteer workers from many organizations in Alberta, Canada, to provide further insight

into volunteer motivation. His subjects were 374 female volunteers ages 20 to 55. No other demographic characteristics were reported.

Using a 10-point self-developed personality questionnaire in a quantitative study, Howarth (1976) asked questions relating to social conscience and concern for others. He found that volunteers scored higher on a measure of superego than nonvolunteers and interpreted this result as an indication of strength of one's conscience. Howarth concluded that volunteering is possibly related to conscientiousness. Further, Howarth found a relationship between the motives of altruism and self-interest, but neither the statistical procedure nor the direction of the relationship was provided. Nevertheless, the results led Howarth to surmise that the volunteer is "impelled by conscience as a form of anxiety and volunteer work as anxiety reducing" (p. 857).

Also using Herzberg's (1959) motivational-hygiene theory, Gidron (1978) studied the motivation to volunteer that identified both intrinsic motives and extrinsic hygiene factors in motivations in paid work. Although Gidron did not test the internal structure of the theory, his descriptive study involved 317 volunteers across four health and mental health institutions. Gidron concluded that rewards can differ with age. Older volunteers were found to place a higher value on social relationships and younger volunteers on gaining work experience. After adapting this theory to volunteering, Gidron surmised that the rewards for volunteering were either personal, (opportunity for self-fulfillment), social (development of interpersonal relations), indirectly economic, or experiential in gaining work experience.

Frisch and Gerrard (1981) examined the characteristics and motives of 455 American Red Cross volunteers (mean age 50) in chapters across the United States. Of

the respondents 60% were females and 40% were males with an average age of 49.26. A 13-item questionnaire was mailed to a stratified random sample of 195 ARC chapters. Of the chapters surveyed, 67% responded for the total volunteers. Frisch and Gerrard found that the volunteers were motivated by either altruistic motives or egotistic motives ($p < .0001$). When younger and older volunteers were compared, however, younger volunteers ranked higher self-serving motives, such as career and social functions ($p < .001$). Older volunteers placed a greater emphasis on the values or altruistic functions ($p < .001$; Frisch & Gerrard, 1981).

The Frisch and Gerrard (1981) study reinforced the concept of Herzberg's (1959) two-factor model. Further, this study was unique because the researchers also compared older volunteers' responses to questions concerning current motives and retrospective questions concerning their own volunteer motives as youths. In general, the older volunteers reported the values function to be more salient to their adult service than to their youthful service ($p < .001$).

Volunteers were studied from a chapter of the ARC in a major Midwestern city by Gillespie and King (1985) to investigate correlations between demographic factors, such as gender, and the reasons given for volunteering. Questionnaires were mailed to 5,000 volunteers, with a 26.9% response rate of 1,346. Respondents were 80% women and 20% men. The authors concluded that their sample of volunteers was essentially comparable to volunteers in general but did not report additional demographic characteristics (Gillespie & King, 1985).

Gillespie and King (1985) found that the turnover among volunteers increased in proportion to the number of volunteers whose primary motivation was gaining training

skills ($r = .34$). Women emphasized more intrinsic motivations for volunteering (women 39.2%, men 34.2%), and men emphasized acquisition of job-related skills (men 30.1%, women 14.0%). Consequently, Gillespie and King hypothesized a longer mean duration of volunteering for women.

Volunteers aged 38 or older had more altruistic motivation for volunteering than their younger counterparts; the spread across age groups was 33.0% to 55.2%. The most common reason given by volunteers to engage in volunteer work was “to help others.” The second and third most frequently given reasons were “to help the community” and to “to obtain job training and job skills.” Gillespie and King (1985) noted that future studies need to incorporate the role of individuals’ current personal and social circumstances in their decisions and the processes to volunteer.

Herzberg’s (1959) two-factor model prompted an increasing number of studies focused on understanding the motivation to volunteer. These studies were centered on what can be considered a three-factor model for understanding the motivation of those who volunteer (Gidron, 1978). The three-factor model comprises altruistic, social, and material issues as the guiding principles.

Fitch (1987) developed a survey that used the three-factor rather than the two-factor model to investigate the motivation of college students who volunteered. This survey included 20 items on a 5-point Likert-type scale that were possible reasons for volunteering, with all but two questions based on the three constructs of altruism, egotism, and social obligation. The exception was questions focused on volunteering as part of religious belief and or as a requirement for a class or organization. A demographic component ascertained when the students started volunteering, if their parents

volunteered, who was most influential in their decision to volunteer, and how important religion was in their lives.

The sample in Fitch's (1987) study was 76 college students who were members of registered student organizations with the primary purpose of community service. Results indicated that the students in this study felt that although altruistic reasons for volunteering are important, egoistic rewards are also necessary ($p < .01$). Fitch also concluded that students first become involved in volunteer activities for a variety of reasons, not purely altruistic. However, intrinsic concern follows as a consequence of actually helping others. Fitch stated that further research on volunteer work was clearly needed, as well as an understanding of motivations for involvement.

A criticism of previous research was made by Cnaan and Goldberg-Glen (1991), who pointed out that much previous research was descriptive and was neither consistent nor systematic in nature. Thus, in a comprehensive literature review, Cnaan and Goldberg-Glen identified and categorized the main motivations for volunteering. They identified 28 motivators for volunteering and from this basis developed the Motivation to Volunteer (MTV) scale with a 5-point Likert-type scale.

Cnaan and Goldberg-Glen (1991) used this scale to in their quantitative study of 258 volunteers from human service agencies and 104 nonvolunteers. The nonvolunteers were drawn from volunteers' identification of friends of the same ages and genders. The authors concluded that volunteers have both altruistic and egoistic motivators to volunteer. However, volunteers did not distinguish between these different types of motives and consequently did not act on one motive or a single category of motives.

When the authors compared the two-category model to the three-category model, they found that motives from each category ranked from 3.8 to 4.0 on the 5-point scale. Thus, Cnaan and Goldberg-Glen concluded that a combination of these motives was integral to the phenomenon of volunteering. Therefore, a one-dimensional model explains the motivation of those who volunteer.

Although the items for the MTV scale (Cnaan & Goldberg-Glen, 1991) were not derived within the context of a theoretical framework and another model was soon to question the one-dimensional framework, their research did generate an alternative perspective on motivations (Clary et al., 1998). The initial understanding for this new model was based on functional analysis and theories of motivation, especially derived from the theories on attitudes by social researchers (Katz, 1960; Smith, Bruner, & Whait, 1956). The functional analysis of motivation was then applied to volunteering and was concerned with “the reasons and the purpose, the plan and the goals, that underline and generate psychological phenomena, that is the personal and social functions being served by an individual’s thoughts, feelings, and actions” (Clary et al., 1998, p. 1517).

Finally, a study with 437 undergraduate students enrolled at the State University College of New York was conducted by Papadakis, Griffin, and Frater (2004). The authors divided students between those who had volunteered and those with no volunteer experience. Students pursuing a service-oriented degree, such as nursing, psychology, or recreation and leisure studies, were differentiated from those pursuing a nonservice degree, such as business, communication, or biology. Subjects completed a two-part self-administered questionnaire, the Volunteer Inventory Functions (VFI).

The results compared the six motivational functions of the VFI (values, understanding, social, career, protective, and enhancement) with respondents' gender, college major, and volunteer status (volunteers and nonvolunteers). Significant motivational differences were found between volunteer and nonvolunteer students ($p = .006$), between female and male students ($p = .031$), and between students pursuing a service-oriented major and students pursuing a nonservice oriented major ($p = .002$).

However, motivational differences existed among all of the demographic characteristics with only some of the six motivational factors. Value ($p < .001$), understanding ($p = .007$), and enhancement ($p = .031$) were assigned significantly more importance for the female students than the male students. Service-oriented major students assigned more importance to the values function ($p = .002$). The other five functions between the service-oriented and the nonservice-oriented majors were also higher in the service-oriented majors. Thus, one could conclude that their service-oriented college major led them to volunteer rather than distinguish among the motivational factors (Papadakis et al., 2004).

The literature reviewed on general volunteering shows that several models on motivation to volunteer have been proposed, but only a few have been tested empirically and findings have supported competing models. Much of the empirical data is suggestive but not conclusive on the motivation for volunteering (Musick & Wilson, 2008; Wilson & Musick, 1997). Clearly, additional research is called for.

Theoretical Literature

A small number of theories of volunteer work have been developed toward defining its characteristics and determinants. One theory was developed by Wilson and

Musick (1997), who developed an integrated theory of volunteer work consistent with characteristics typically found in professional nursing. Wilson and Musick's sociological research theory of formal and informal volunteer work was based on the premises that "volunteer work is productive work that requires human capital and is collective behavior that requires social capital, and ethically guided work that requires cultural capital" (p. 694). Human capital was measured by education, income, and functional health. Social capital was measured by the number of children in the household and informal social interactions. Cultural capital was measured by religiosity.

The authors used data from the panel study ($N = 2,854$) Americans' Changing Lives and found that formal volunteering increased in relationship to human capital, number of children in household, informal social interaction, and religiosity (Egerton, 2002; Wilson & Musick, 1997). However, Wilson and Musick reported that they could not interpret their results between formal and informal volunteering because the number of respondents reporting any one subtype was too low.

The concept of duty was explored by Kane-Urrabazon (2007) using Walker and Avant's (1995) process of concept development. The concept of duty was applied particularly with reference to disaster nursing. Duty was defined as living the nurse's pledge to care for the sick with skill and understanding, sparing no effort to conserve life, alleviate suffering, and promote health. Kane-Urrabazon pointed out that the Nurses Code of Professional Conduct and the Nightingale Pledge both mandate that registered nurses have a professional duty to provide care if they encounter an accident or emergency at or outside the work environment. Duty was distinguished from job or obligation by the fact that duty is guided by one's morality or conscience and is not required legally. Kane-

Urrabason concluded that as long as nursing has been a profession, the concept of duty has been prevalent. This concept of duty is what drives nurses to respond to tragedy and render aid to help save lives and community property.

The six motivational functions of the VFI, reviewed above (Papadakis et al., 2004) are values, understanding, social, career, protective, and enhancement. The VFI study by Papadakis et al. showed that motivational differences exist between those who have volunteered and those who have not volunteered. Especially important were the values, enhancement, and understanding functions and primarily to women. As the authors suggested, such information is important for organizations wishing to attract women volunteers, such as disaster response organizations.

The theoretical literature includes an integrated theory of volunteer work, a concept analysis of duty pertaining to nursing, and the six motivational functions of the VFI. However, the theoretical literature is sparse and does not pinpoint disaster nursing. Thus, the present study should fill a gap in the literature in generation of a grounded theory of nurses' volunteerism in disaster situations.

Nursing Volunteerism

The literature on nursing volunteerism is primarily historical and practically oriented. Gebbie and Qureshi (2006) provided a historical perspective to disaster responsiveness, stating that "nurses have been a part of emergency response as long as nurses have existed" (p. 1). Beginning with Florence Nightingale's services in the Crimean War, the authors traced the role of nurses during the war years and into the mid-20th century. Peterson (2006) highlighted the importance of developing a mechanism to increase the surge capacity in a disaster, noting that nurses are often the largest

contingent of professionals in times of disaster. The often overlooked issues of professional and personal liability were thoughtfully presented, in addition to helpful suggestions on how to access information that may impact a nurse's decision to volunteer in an emergency response effort.

Weiner (2006) spotlighted the challenges nurses face in responding to disasters and the resources available to increase competency in disaster preparedness. The author pointed out that although disaster response is included in the National Council of Licensure Examination (known as the NCLEX), this content is barely touched upon in the classroom in the schools of nursing.

In 2005, Fothergill, Palumbo, Rambur, Kyndaron, and McIntosh described specific characteristics of inactive registered nurses who volunteer. In this study of inactive nurses in Vermont funded by the Vermont Department of Health Office of Rural Health and Emergency Preparedness Division, the authors explored the viability of an untapped resource in a disaster: the willingness of inactive nurses to volunteer in a homeland security effort. A total of 3,682 inactive nurses held "lapsed" or "inactive" licenses, according to the Vermont Board of Nursing. Fothergill et al. (2005) sent a mailed questionnaire from an instrument of "Identification of Factors Which Would Attract Inactive Registered Nurses Back to the Hospital Setting" to all names on the list. In addition, open-ended questions were provided for nurses' feedback.

The authors reported that 60% of the surveys were returned as "undeliverable" and another 2.6 % requested removal from the mailing list. The response rate was 20%, or $N = 611$. Data were collected over a 3-month period with a modified Dillman's Total Design Method (Dillman, 2000) of sequential steps to prompt as many responses as

possible. Thus, follow-up reminders were sent at specific intervals and the survey was resent. Descriptive and inferential statistics were used to analyze relationships between the responses and the inactive status of the nurses, and several common themes were identified.

Twenty-seven percent of the respondents were interested in volunteering. The inactive nurses who more strongly identified with “being a nurse” ($p = 0.001$) and younger respondents ($p < 0.0001$) were more willing to participate in volunteer work as part of the national effort for homeland security. Reasons for volunteering included unwillingness to volunteer, age, caregiving responsibilities, time away of nursing, and full-time nonnursing employment. Overall, inactive nurses willing to volunteer were younger.

Qureshi, Gershon, and Francisco (2008) studied factors that influenced Hawaiian healthcare professionals to identify factors that influenced interest, ability, and willingness to join the Medical Reserve Corps. Using both qualitative and quantitative methods, the authors developed a survey using Herzberg’s (1959) theory of motivation and Maslow’s (1954) hierarchy of needs. The 15-item survey was sent to 1,123 healthcare professionals, with a response rate of 44.3 %, or $N = 468$.

The survey began with demographic questions and prior awareness of the MRC, as well as a brief summary of the MRC. The open-ended questions on the survey addressed perceived personal beliefs and drawbacks to joining and inquired about the best days and times for attending a MRC meeting. The healthcare professionals were asked to rate the importance of seven key MRC organizational items and eight training topics on a 5-point Likert scale ($0 = \textit{not important at all}$ to $5 = \textit{extremely important}$). The

final question asked the respondent to describe the single most important issue in deciding to join the Hawaiian MRC and the reasons for their answer (Qureshi et al., 2008).

Respondents' prior knowledge of the MRC was low ($n = 37$, 8%), and women reported a higher interest in joining than men ($p < 0.01$). The allied health group in the study was more willing ($p = 0.01$) to volunteer compared to the physicians, dentists, and nursing groups. Qualitative analysis revealed that the most commonly cited benefit for joining the MRC was personal satisfaction, followed by being able to give back or help one's community, and finally by gaining the opportunity for additional disaster training.

The most frequently reported drawback was related to general availability of time as well as time away from family. More than half of the respondents reported that they thought their colleagues would join the MRC out of a sense of obligation and because it was the right thing to do. This response was consistent with what respondents reported for themselves (Qureshi et al., 2008). Qureshi et al. (2008) suggested that the study should be repeated in other areas of the nation and that findings could provide guidance for the recruitment and retention of MRC members as well as other volunteer organizations.

Hong Kong nurses' disaster preparedness was studied by Fung, Loke, and Lai (2008), who distributed a questionnaire to registered nurses studying in master's degree programs at a university in Hong Kong. A total of 164 out of 174 questionnaires were completed, response rate 94%. The majority of respondents were female and bedside nurses. When asked to identify the organization the nurses would volunteer with, 94.6 % identified the Hospital Authority, an independent organization accountable to the

government through the Secretary for Health and Welfare for managing all public hospitals in Hong Kong. Ninety-four percent ($n = 164$) of the nurses acknowledged they were inadequately prepared to respond to a disaster and identified education courses and specific materials or activities that needed to be developed to prepare nurses to respond to disasters.

Fung et al. (2008) acknowledged the study weakness that the nurse respondents did not necessarily represent the population of Hong Kong nurses because all respondents were enrolled in the same advanced degree program. Further, the high return rate may have been related to the fact that the nurses were studying for a higher degree in nursing and felt obligated to respond to the survey. Nevertheless, this study, similar to American studies, indicated the need for nurses to be prepared and to respond to disasters.

Thus, the volunteer nursing literature shows that nursing volunteerism has a long history and that inactive registered nurses may to a limited degree be counted on as a nursing disaster resource. Factors were also identified that influence interest, ability, and willingness of Hawaiian healthcare professionals to join the Medical Reserve Corps. Disaster nursing was demonstrated to be a worldwide concern, as evidenced by a study of Hong Kong nurses and disaster response. These studies indicate that disaster nursing and volunteerism require additional research to further understanding of why nurses volunteer in disasters and how better to recruit and retain them. The present study aims to add to these goals.

Disaster Nursing Competencies

In the United States, citizens enjoy the highest level of technology in the world. The hospitals excel at technological sophistication, enabling registered nurses to perform

incredible feats daily (AHA, 2005; Kingma, 2008). However, a major drawback of technology is that it masks a lack of competencies if and when the technology is removed, such as in disaster situations (Amour et al., 2001). They require registered nurses to perform nursing care without the use of technology, relying instead on basic nursing skills, knowledge, and behaviors. The Agency for Healthcare Research and Quality (AHRQ, 2011) reported that registered nurses who possess the knowledge and skills to act efficiently and effectively in the face of a disaster constitute a key component of any emergency plan.

The International Council of Nurses (ICN) was established 109 years ago to ensure that nursing maintains sound standards and that people worldwide receive quality nursing care (Kingma, 2008). With the support of World Health Organizations (WHO), the ICN is in the process of developing disaster nursing competencies, which will allow identification of knowledge gaps, promotion of standardized education and preparation in disaster healthcare, and stimulation of a research agenda. The competencies developed in 2009 provide the framework for the screening and rapid deployment of experienced nurses to specific disaster sites.

Hsu et al. (2006) focused on the development of key competencies and terminal objectives for the training of all healthcare workers in disaster preparedness. The development of these competencies incorporated an evidence-based consensus building process, beginning with a literature search and review and cataloging of existing competencies. Through this process, a total of seven cross-cutting competencies and 21 terminal objectives were developed. The seven competencies are as follows:

1. Recognize a potential critical event and implement initial actions.
2. Apply the principles of critical event management.
3. Demonstrate critical event safety principles.
4. Understand the institutional emergency operations plan.
5. Demonstrate effective critical event communications.
6. Understand the incident command system and your role in it.
7. Demonstrate the knowledge and skills needed to fulfill your role during a critical event. (para. 3)

For each of these competencies, comprehensive terminal objectives are described. These factors could serve as a paradigm for disaster training and education (Hsu et al., 2006).

Despite the consensus of the important role of registered nurses in a disaster response, as the literature review indicated, registered nurses lack readiness and confidence to respond effectively to disasters. Training practices have not been systematically developed, rigorously examined, or objectively tested (Hsu et al., 2006). Training and education are accepted as integral to disaster preparedness; however, currently taught practices are not evidence-based or standardized. Lessons learned from recent disasters call critical attention to the gap in healthcare workers' emergency preparedness and disaster response training and education (Hsu et al., 2006; Subbaro et al., 2008). Several articles described the development process and competencies for health professions students, nursing students, public health workers, and registered nurses in emergency responses (Gebbie & Qureshi, 2002; Markenson, DiMaggio, & Redlener, 2005). However, articles that outlined disaster training competencies did not have competencies with specific measurable objectives.

In 2003, the International Nursing Coalition (INC) for Mass Casualty Education published a document intended to facilitate the development of educational policies and competencies related to the impact of mass causality events on nursing practice.

However, other than this document and the Hsu et al. (2008) article, the literature search for the present study revealed relatively few articles describing educational competencies for the training of healthcare workers in disaster preparation and response.

Gebbie and Quershi (2002) reported that neither educational courses exist for current nursing school curricula nor do any mandatory continuing educational courses exist for practicing registered nurses. In 2009, the World Health Organization and the ICN (Powers & Daily, 2009) in *ICN Framework of Disaster Nursing Competencies* stated “that the lack of accepted competencies and gaps in education has contributed to the difficulty in recruiting nurses prepared to respond to a disaster and provide assistance in an effective manner” (p. 19).

One of the highest priorities identified by the disaster response community in recent years has been to develop standards and guidelines for education and training for multidisciplinary healthcare team response to major disaster events (Armour et al., 2001). The educational need for rapid and effective disaster training for healthcare responders is widely recognized, especially for registered nurses (Armour et al., 2001; ICN 2003). However, differences such as educational and cultural backgrounds present significant challenges to the standardization of disaster training and education. The solution may be to develop evidence-based measurable competencies and processes, translated into enabling objectives that have clear statements of knowledge, skills, and behaviors for each performance objective (ICN, 2003).

Practicing registered nurses are accountable to the public to provide care to individuals, groups, and communities affected by disasters (Conway-Welch, 2002). Until all registered nurses who are currently practicing and willing to respond to disasters exhibit competencies to respond to disasters, either via informal education such as continuing education or through experiences such as mock disaster drills with a disaster response organization, the profession of nursing will not be equipped with a corps army of self-confident and competent registered nurses who are ready to respond to disasters of all types, sizes, and locations (ARC, 2006; Conway-Welch, 2002). The present study may aid in identification of registered nurses' experiences and competencies as they volunteer for disaster duty with a disaster response organization and thus add to the factors necessary for training and educational programs.

Experiential Context

This researcher, a registered nurse, is an affiliated volunteer with the American Red Cross and has experience in responding to one large disaster but greater experience with smaller disasters, such as house fires. Additionally, this researcher has been deployed to a theater of war with the military. Military deployment has some similar characteristics to a domestic disaster but not identical without a war in the same area. From her Army training, she recognized that resilience and readiness are common to both military service and disaster nursing volunteerism—the ability to bounce back in stressful situations, and readiness is the individual's ability to accomplish the mission at hand.

The researcher developed interest in the study topic through these experiences as well as observing other registered nurses and disaster managers in disaster situations. Some individuals in both groups were highly prepared and others were less so, adding

rather than mitigating the confusion and traumas of the disaster on all affected. To further understand and contribute to knowledge that could be used for recruitment and training, the researcher desired to study the critical influences of registered nurses in volunteering for disasters.

The need for self-awareness of the researcher and the “setting aside” of preconceived beliefs, judgments, and values is necessary in the discovery of the sample participants’ realities. Glaser (1978) advised grounded theory researchers to reduce their preconceptions as much as possible. Although the researcher has been a disaster nurse, reflection on her personal feelings by journaling and “bracketing” (Moustakas, 1994, p. 78) were used to decrease her biases from influencing the concepts, categories, and themes that emerged during data analysis (Creswell, 2007).

Prior to commencing with the actual online interviews, the researcher herself answered the interview questions, as did the actual study participants. This activity is referred to as “interviewing the interviewer” (Best & Kruger, 2004 p. 76). (In this way, the researcher’s potential biases and preconceived thoughts relating to the topic of interest were identified prior to data collection. The researcher also used reflexivity, whereby she sought to understand the impact of her personal experience on data interpretation rather than attempt to ignore or eliminate it (Ahern, 1999). This is also the process of *epoché* (Moustakas, 1994, p. 26), in which the researcher identifies and puts aside opinions and judgments about the phenomenon of interest and attempts to become as neutral and detached as possible. The researcher then entered into the study without a preconceived hypothesis and consistently attempted to bracket prior knowledge or

assumptions about the phenomenon of affiliated nurses' critical influences in volunteering with a disaster response organization.

Chapter Summary

This chapter presented a review of literature pertinent to the study relating to individuals' motivations or incentives for volunteering. Although there is rich literature on volunteerism around health-related issues, it does not speak directly to volunteerism with registered nurses during disasters, and the findings of general volunteerism may not be applicable to registered nurse volunteers during disasters. Disaster nursing literature is primarily anecdotal in nature, although with limited empirical studies. The lack of literature on registered nurses who are affiliated volunteers with a disaster response organization supported the need for the study, especially because the literature shows the multifaceted and complex nature of the issue of volunteers working a disaster site. Chapter Three describes the research design, sample and setting, ethical considerations, data collection and analysis, and research rigor of the study.

CHAPTER THREE

METHODS

The purpose of this qualitative grounded theory study was to explore, explain, and gain an understanding about the critical influences utilized by registered nurses to decide to volunteer and affiliate with a disaster response organization before the disaster strikes. Using a major research question and systematic inductive method for gathering, synthesizing, analyzing, and conceptualizing qualitative data, the researcher assessed the qualitative responses of registered nurses who were affiliated volunteers with disaster response organizations such as the American Red Cross. The overarching question for this qualitative grounded theory study was the following: What are the critical influences that registered nurses utilize in their decision making process to become an affiliated volunteer with a disaster relief organization? This question was used to formulate the interview protocol for participants in this study using a qualitative grounded theory approach.

In qualitative research methods, theory is not derived, borrowed, or modified from other fields but rather springs from observation of respondents' participation in an actual phenomenon (Munhall & Boyd, 1993). In a qualitative perspective, knowledge is based primarily on the postmodern view that reality is subjective and interpretive and comes from the understanding of individual meanings. In qualitative inquiry, researchers are less interested in how representative the participants are of the larger population and more interested in concepts and incidents that support and shed light on them (Corbin & Strauss, 2008).

Research Design: Grounded Theory

This study was conducted with a qualitative grounded-theory approach. Grounded theorists search for social processes present in human interaction (Munhall & Boyd, 1993). The essence of grounded theory is the understanding of how a specified group of individuals define their reality. Corbin and Strauss (2008) stated that if little is known about the topic and few adequate theories exist to explain or predict a group's behavior, the grounded theory method is especially useful.

In grounded theory, the focus is on generation of categories by the subjects themselves, and not an a priori creation of typologies by researchers (Charmaz, 2006; Strauss & Corbin, 1990). Therefore, the theories ought to be free from preconceived ideas but rather grounded in data gathered from the field (Creswell, 2007). When using grounded theory, researchers aim to discover patterns and processes and understand how a group of people define their reality within their social interactions (Cutcliffe, 2000; Stern, Allen, & Moxley, 1982). In this way, the resulting theory "fits" in its description and understanding of the social process researchers set out to explore (Glaser & Strauss, 1967).

According to Corbin and Strauss (2008), theorizing involves not only interpretation and condensing of raw data into concepts but also calls for arrangement of the concepts into a logical, systematic explanatory scheme. In the present study, because the critical factors registered nurses use to become affiliated volunteers could be as individual as the nurses themselves, this methodology allowed the researcher to identify relevant concepts. The researcher had to "tease out" emerging categories by searches for

structure, temporality, cause, context, dimensions, consequences, and relationships yields dense theory and not behavioral variation (Anzul, Downing, Ely, & Vinz, 1997, p. 18).

A grounded theory consists of a core category with linkage to related subcategories and concepts. The establishment of these related subcategories begins with purposive sampling, followed by theoretical sampling. In purposive sampling, participants are chosen because they have experienced the phenomenon of interest, allowing establishment of a baseline or starting point (Strauss & Corbin, 1990).

Theoretical sampling is concept-driven from what is derived from the data (Corbin & Strauss, 2008). Researchers begin theoretical sampling as the theory begins to emerge and new data are needed to further “elaborate and refine” the boundaries of the emerging theory (Strauss & Corbin, 1990, p. 39). Theoretical sampling based on concepts derived from data is different from conventional methods of sampling because theoretical sampling is responsive to the data rather than established before the research begins (Corbin & Strauss, 2008).

Theoretical sampling, used primarily in grounded theory, is one particular type of purposive sampling. Theoretical sampling is the process of data collection by which researchers simultaneously collect, code, and analyze the data to decide what data to collect next (Coyne, 1997). This type of sampling is both directed by the emerging theory and directs further emergence of theory. When using theoretical sampling, researchers must determine what data source, such as a group of people, documents, or body of literature, could yield the richest and most relevant data (Strauss, 1987).

Qualitative researchers have over time identified challenges associated with the in-depth observation and interview process. These include time, cost, and limited access

to research participants (Denzin & Lincoln, 2005; Patton, 2002). As qualitative methods developed, researchers facing these challenges started to explore more effective research methods using the Internet while retaining or improving quality. These explorations have resulted in an increase in e-mail interviewing (Bowker & Tuffin, 2004; Meho, 2006).

A descriptive study with Internet-based participants was conducted with 30 cancer patients by Eun-ok and Wonshik (2006). The authors reported a high response rate, retention rate, and automatic transcripts, as well as rich online discussions by the participants. Internet-based surveys can be conducted faster, better, less expensively, and/or easier than surveys conducted via conventional modes. For these reasons, the Internet will continue to grow in importance for conducting of qualitative research surveys (Fricker & Schonlau, 2002). In the present grounded theory study, based on such observations, results, and previous successful online qualitative studies, data were collected with interview questions delivered via the Internet.

Sample and Setting

The researcher targeted a purposive sampling of registered nurses licensed in the state of Florida. The nurses were affiliated volunteers during a disaster with an American Red Cross chapter or another disaster response organization. The focus of the sample was to target a population with rich information so that the researcher could achieve optimal exploration and description of the study phenomenon.

According to the American Red Cross chapter, there were over 80 affiliated registered nurses in the selected chapter; a second chapter with 100 affiliated registered nurses was available (K. Decker, personal communication, September 13, 2012). The population may be described as follows: the majority is females over 50 who are

registered nurses and have volunteered with the ARC for over 5 years. Most of the affiliated volunteer disaster response nurses have deployed at least once and have a varied nursing background (K. Decker, personal communication, April, 21, 2012). Determination of the appropriate size of a theoretical or purposive sample is governed by the quality of the information being gleaned as opposed to the number of interviewees. The targeted chapter of the American Red Cross was used. However, to ensure an adequate number of participants, access to additional participants was arranged through the regional and state nurse liaisons of the ARC. Additional resources included access to Wall and Keeling's (2011) *Nurses on the Front Lines When Disaster Strikes (1878-2010)* and blogs or diaries of registered nurses who were affiliated volunteers and had deployed with disaster experience. In addition, individuals recruited were requested to tell other registered nurses about the study, some of whom then participated. This snowball sampling may have prevented significant bias by attracting participants from more than one venue (Fitzpatrick & Montgomery, 2004).

Grounded theory literature suggests a sample size of approximately 20 to 30 respondents, or until saturation is reached. Saturation refers to uncovering of no additional data towards new theoretical insights or patterns (Charmaz, 2006). Saturation is generally explained as follows: "when no new categories or relevant themes are emerging" (Corbin & Strauss, 2008, p. 148). Saturation helps assure that a rich, dense exploration is reached of meanings, behaviors, and actions, accounting for the variability of the population under study (Creswell, 2007). Therefore, the targeted sample was a minimum of 20 or until saturation was reached. However, it is important to remember

that the units of analysis (each nurse participant) are not predetermined and are not known until the data are collected

Access and Recruitment of the Sample

Recruitment of the sample of registered nurses began after Institutional Review Board (IRB) approval from Barry University (Appendix A). Permission was sought for access to registered nurses in the ARC (Appendix B) and access was granted (Appendix C). All registered nurses in these organizations who had e-mail addresses received a recruitment e-mail/handout from the researcher inviting them to participate in the asynchronous online interview (Appendix D). If they were registered nurses but did not have an affiliated volunteer relationship with the American Red Cross or another disaster response organization and indicated their desire for participation, they were thanked and their participation was declined.

The registered nurses in these organizations were also invited to participate at their monthly meetings, and the e-mail/handout invitation was available at the meetings (Appendix D). Once the registered nurses received the invitation, they either clicked on the web link supplied or inserted the web link in their browser. This action then connected them to the online cover letter that explained the research (Appendix E). If they agreed to participate, they then clicked on a web link to the online interview.

A follow-up reminder e-mail for participation (Appendix F) was sent to the registered nurses 1 week before the deadline and at the next monthly meeting. Meho and Tibbo (2003) indicated that reminder e-mails have been shown to significantly increase participation rates. In three studies, reminder e-mails generated from 23% to 48 % of the total responses (Fricker & Schonlau, 2002).

Inclusion Criteria

Five inclusion criteria were specified for participants. First, they were licensed registered nurses affiliated with the American Red Cross or another disaster response organization. Second, they had previous disaster volunteer experience. Third, they had to be able to speak English. Fourth, they had to have access to and some knowledge of the Internet to respond to the online survey. Fifth, they did not work for the American Red Cross.

Exclusion Criteria

Three exclusion criteria from participation were specified for registered nurses. First, they were not an affiliated volunteer with the American Red Cross or other disaster response organization. Second, they did not volunteer during a disaster. Third, nurses were non-English-speaking. Fourth, nurses worked for the American Red Cross.

Ethical Considerations/Protection of Human Subjects

Participants were protected, first, because of approval by Barry University Institutional Review Board (Appendix A) and permission to access registered nurses in the ARC (Appendices B, C). Second, the foreseeable risks to participants were minimal. However, because of the nature of the registered nurses' professional roles, the recalling and discussion of situations concerning their involvement in disasters may have evoked feelings of increased posttrauma anxiety or discomfort during or following the interview. To further minimize this risk, at the conclusion of the web-based interview the researcher provided a written list of free counseling services by geographic areas via the web if participants felt such resources were needed (Appendix E).

Third, participants were informed they could withdraw at any time with no adverse consequences and that completion of the survey implied their informed consent (Appendix E). Fourth, participants were further protected in terms of confidentiality. They were informed that the data would be stored on the researcher's password-protected server, stored for 5 years, and then destroyed (Appendix B).

Fifth, delinking the interviews from participants' identification was employed to separate the URL from the surveys, thereby eliminating the breach of the confidentiality risk. Participants' user names, domain names, and all implicit and explicit links between the names of participants and data they provided were removed in both publishing and storing data. In reporting of results, participants were referred to by number only, and any potential identifying names in their verbatim quotations, such as state, city, university, or individual names, were deleted.

Sixth, the policy of the online survey host, Qualtrics (2013), states that all data collected are kept private and confidential. Qualtrics uses Transport Layer Security (TLS) encryption (also known as HTTPS) for all transmitted data. Qualtrics also protect surveys with passwords and HTTP referrer checking. Data are hosted by third-party data centers that are SSAE-16 SOC II certified. This means that all data at rest are encrypted, and data on deprecated hard drives are destroyed by U.S. Department of Defense methods and delivered to a third-party data destruction service. Participants were informed of this confidentiality (Appendix B).

Seventh, although no direct benefits existed for individual study participants, the study results may help to identify the process and critical influences that motivated registered nurses to become affiliated volunteers during a disaster. This information may

then be used to develop a recruitment plan to attract and retain registered nurses as affiliated volunteers with the American Red Cross or another disaster response organization. The information would allow the registered nurses' responses to be deliberately managed so they could be deployed in ways that would be of the greatest benefit to the American Red Cross or other disaster response organizations during a disaster. Finally, the researcher's contact information as well as that of the chair of the research committee and Barry University's IRB point of contact person was provided to the participants for concerns, problems, or questions (Appendix D).

Data Collection Procedures

Online data collection. This research study utilized an online method to collect the data. The literature supports this method, as does the "founding father" of grounded theory (B. Glaser, personal communication, January 12, 2013). The Internet has made available new forms of communication beyond many earlier media for communication, such as letter writing, telephone, telegraph, post-it notes, and interviews (Markham, 2005; Markham & Baym, 2009). E-mail has been characterized as a promising means for conducting research (Schaefer & Dillman, 1998). In 2012, it was documented that 81% of Americans use the Internet (U. S. Department of Commerce, 2012).

The Internet has made available new forms of data gathering, as alternatives to traditional methods, in both qualitative and quantitative research (Best & Kruger, 2004; Hall, Frederic, & Johns, 2004). Tolstikova and Chartier (2010) compared online and offline surveys in bereavement and found no relevant differences. The researchers concluded that the reliability and validity of utilizing an Internet-based method to collect data can be a suitable and valid alternative to the more traditional paper and pencil

method. The authors also stated that the similarity between the online and offline grief assessment demonstrated support for generalizability of the findings from the Internet study to other grieving people.

The potential benefits and pitfalls of online surveys were noted by McCalla and College (2003). The researchers observed that online surveys for research can prove to be a very effective method to reach a target population; many respondents preferred online versions over paper-and-pencil versions or interviews and sometimes a combination of both online and traditional data collection methods can deliver better results (McCalla & College).

Best and Kruger (2004) observed that the Internet offers a variety of options for data collection, because instruments can be tailored to specific users or made available for anyone who wants to participate. However, several limitations were acknowledged, including the possibility that those without Internet access are unavailable for recruitment and that participant hardware variations can hinder all participants receiving a uniform research instrument. Although much research exists on use of the Internet, the number of nursing research studies is limited, as is the number of qualitative research studies (Idemoto, 2004).

For the present study, an asynchronous electronically mediated web survey was administered. Asynchronous communication is advantageous to participants because a particular time demand is not placed on them (Streubert & Carpenter, 2010). However, unlike face-to-face or telephone interviews, e-mail interviews do not allow for immediate probes of follow-up questions, which are used to elaborate and clarify participants' responses. Although the lack of immediate probes could result in loss of some important

data, it can also enhance data collection. Verbal probes depend on thoughts generated during the interview. E-mail interviews, however, give participants and researchers time to be more thoughtful not only in response to the major questions but also with any follow-up questions (Meho, 2006).

Study data collection. Given the advantages in access and convenience for participants of online qualitative research, this study used online data collection methods. After Barry University IRB approval (Appendix A) and permission to access the ARC registered nurses (Appendices B, C), through an e-mail invitation or at a monthly nurses meeting of the American Red Cross chapter, the researcher invited registered nurses who were members of a Florida chapter of the ARC to participate (Appendix D). The invitation had a web link to the survey, available with Qualtrics online software. If nurses agreed to participate, they clicked on the link and were directed to the cover letter (Appendix E).

Data were collected from August 10 to September 30, 2013. On the survey, the first screen presented demographic questions, which ended with a request for participants' membership as affiliated volunteers with a disaster response organization and had responded to a disaster in this capacity (Appendix G). The registered nurse participant was instructed and encouraged to use acronyms and emoticons, as this lessened some of the loss in nonverbal cues and increased the depth of the data collected. If participants responded that they were not affiliated volunteers, a thank you screen appeared and they were instructed to exit the survey.

Participants were informed that the amount of time estimated to complete the survey was no more than 60 minutes but that they could take as long as they need to

complete their responses. They were also informed that they could withdraw from the study at any time by logging off the website and not submitting the survey. They were also informed that they had the right to refuse to continue the survey at any time during the interview or, if they so chose, to refuse to answer any question without penalty.

Completion of the interview implied consent.

The same population of registered nurses was invited to participate in a second survey whether or not they participated in the first survey. The second interview was distributed in the same way as the first through an e-mail invitation or at a monthly nurses meeting of the American Red Cross (Appendix E). The purpose of this second survey was to further develop themes as they emerged from the answers that were originally provided.

Participants were also informed that they would receive a copy of the results either by e-mail or at a monthly meeting of the American Red Cross immediately following the completion of the study. According to Meho (2006), distribution of results may encourage individuals to participate.

For responses, a due date of 1 month was indicated on the invitation e-mail for the participants so that they have ample time to respond. A follow-up reminder e-mail invitation containing all pertinent information (Appendix F) was sent to all participants 20 days after the original e-mail to increase the response rate as well as distributed at the next monthly American Red Cross meeting. Only one reminder was sent to minimize perceived pressure to participate.

Interview Questions

The purpose of the interview questions in this qualitative grounded theory study was to explore and elicit the critical influences of registered nurses who are affiliated volunteers with the American Red Cross or another disaster response organization in terms of their decision to volunteer and experiences. The guided questions were open-ended and person-centered (Charmaz, 2002). The aim of the researcher was to document and understand the participants' point of view rather than interrogate (Charmaz, 2002; Miller & Glassner, 2004).

Strauss and Corbin (1998) addressed the multitude of choices, decisions, and options a researcher must make regarding "the flow of work" involved in a research project (p. 29), for instance, what types of data collection will be utilized for this study? Typically, grounded theory research employs interviews and memos (Creswell, 1998). Open-ended interview questions facilitate richer and fuller responses if the respondents are cooperative (Polit, Beck, & Tatano, 2001). Closed-ended questions may lead to superficial answers with the result that some potentially important responses could be overlooked or omitted (Creswell, 2007).

In the researcher's e-mail correspondence and telephone conversation with Dr. Barney Glaser, he reminded the researcher not to place preconceived ideas into the participants' minds with the interview questions. Therefore, a minimum number of open-ended questions would be best. "It is all about the data and to use the web method and see what emerges" (B. Glaser, personal communication, December 13, 2011). Thus, a minimum number of open-ended interview questions were formulated (Appendix G).

Demographic Data

The online interview began with 11 demographic questions. Most were traditional demographic items to describe the sample, such as age, gender, ethnicity, marital status, highest level of education, years of experience as a registered nurse, current work status, and primary clinical area (Appendix G). One question (no. 10) was drawn from the Vermont study on the volunteer potential of inactive nurses for disaster preparedness (Fothergill et al., 2005). In the Fothergill et al. study, inactive nurses who were interested in volunteering identified themselves as “being a nurse.” However, the level of interest in volunteering decreased with each category of how the participant identified with nursing (Fothergill et al.). In the present study, the question asked of the affiliated registered nurse volunteers who identified themselves as “being a nurse” was similar to that in the Fothergill et al. (2005) study.

Data Analysis

In qualitative research designs, data analysis involves the scrutiny of the raw interviews with the end result “evidence-based interpretations” that can then be used as the basis for future research studies (Rubin & Rubin, 2005, p. 201). The researcher’s goal is to formulate descriptions and knowledge based upon the words and experiences of the study participants so that a better understanding emerges of the research phenomenon of interest (Miles & Huberman, 1994). This process is inductive, whereby the researcher begins the analysis with openness and without any preconceived ideas or hypotheses. With this approach, the participants’ repeated words and ideas formulate the concepts, categories, themes, and subsequent theory generated (Charmaz, 2003; Seidman, 2006).

With the grounded theory methodology of this study, data analysis began when the first interview responses were received. Initially, *in vivo* coding took place as a part of the open coding process. *In vivo*, a term meaning from life or nature, refers to use of the exact words of participants rather than interpretations by the researcher (Corbin & Strauss, 2008). The process involves open coding, a line-by-line, detailed reading and analysis of the text transcribed from participants' interviews. The interviews are reduced to meaningful variables with varying perspectives that center upon the phenomenon of interest (Shank, 2006).

Following receipt of the surveys, the researcher reviewed each one several times to enhance data analysis and accuracy. Initially, open coding was accomplished by performing line-by-line analysis for concepts. Related concepts in the interviews were labeled and categorized. During the analysis the researcher recorded thoughts, feelings, and impressions in detailed journal memo notes.

The primary method of data analysis in grounded theory is constant comparative analysis (Creswell, 2007). Corbin and Strauss (2008) explained the process as the researcher taking one step at a time with data gathering, followed by analysis, followed by more data gathering, until a category reaches the point of saturation, that is, repetition of similar material with no new revelations. Constant comparison is the heart of the analysis process in grounded theory (Charmaz, 2006).

In this study, constant comparative analysis, in which each interview was compared with the other interviews, continued until saturation of the established categories occurred (Corbin & Strauss, 2008). Memoing allowed the researcher to elaborate on concepts and themes identified in the coding. By way of axial coding, in

which connections or relationships are made between the core category and subcategories in a combination of inductive and deductive processes (Corbin & Strauss, 2008), a central category or phenomenon was identified. This became the core variable or concept for the subsequent theory regarding the registered nurses who volunteered during a disaster.

As the categories became refined and developed as theoretical constructs, gaps were found in the data and theory (Denzin & Lincoln, 2000). The researcher returned repeatedly to the data and began additional data collection using theoretical sampling to further define or illuminate the central core concept. At this point, the researcher chose to sample specific issues only, looking for precise information to shed light on the emerging theory. The aim of theoretical sampling is to refine ideas or theories rather than to increase the size of the original sample (Denzin & Lincoln, 2000). A theoretical model is created that is representative of the core category and its linkage with the subcategories that shape and define it (Strauss & Corbin, 1994).

Theoretical sampling was used, and data saturation occurred at the 30th survey, at which point no new insights were evident. Saturation was confirmed with analysis of five additional surveys. Themes that emerged from the individual interviews were explored with an additional e-mail (Appendix F) to all participants and distribution at the ARC meetings. The results promoted the credibility of the data findings.

The last phase of the analysis was selective coding, in which the overall theory was established and formulated. The researcher integrated the elements that emerged from the interviews and demographic data to create an analytical storyline. This storyline helped to establish a sequential order to and understanding of the critical influences of registered nurses affiliated with a disaster response organization who volunteered during

a disaster. The statements and relationships exemplified by the theory will have emerged from the data, and therefore be grounded (Charmaz, 2002).

Research Rigor

The quality and accuracy of a qualitative research design is judged on its methodological consistency (Corbin & Strauss, 2008). The quality and accuracy require the researcher to use all the relevant procedures as designed. The terms *credibility*, *dependability*, *confirmability*, *transferability* are offered by Charmaz (2006) and Corbin and Strauss (2008) to be used as more appropriate to qualitative studies in place of the quantitative terms of *internal and external validity*, *reliability*, *objectivity*, and *generalizability* (Creswell, 2007).

Rigor addresses the researcher's systematic, consistent approach to collecting, collating, and analyzing large amounts of data in the form of interviews. Although the qualitative researcher may not seek the rigidity of the quantitative researcher's approach, the qualitative researcher strives to add richness and meaning to study findings by addressing concepts of rigor such as trustworthiness, auditability, and confirmability.

Trustworthiness. *Trustworthiness* is a term emerging from recent qualitative researchers that is "itself a parallel to the term rigor" (Patton, 2002, p. 546). Rigor addresses the systematic, consistent approach to collecting, collating, and analyzing large amounts of data, generally in the form of interviews or observations (Patton, 2002; Polit & Beck, 2006).

Patton (2002) suggested that in qualitative research "the issue . . . is not really about objectivity in the abstract, but about the researcher credibility and trustworthiness, about fairness and balance" (p. 576). An aspect of trustworthiness is that it deals with the

focus of the research and how well the data and processes of analysis address the intended focus (Graneheim & Lundman, 2004). To that end, the interview process of this study delivered the same set of questions to all participants electronically. It was assumed that these professionals in their respective roles as disaster participants possessed the experience and background to best address the critical influences that registered nurses use to decide to volunteer and affiliate with a disaster response organization before the disaster strikes. Thus, trustworthiness was viewed in this study in the context of the concepts of credibility, dependability, confirmability, and transferability.

Credibility. Credibility is the primary criterion for assessing qualitative study results. A concept somewhat related to it is auditability, or use of an audit trail. This concept is closely related to dependability in that it seeks a verifiable, consistent trail of data collection, data coding, and data analysis that ensures uniformity in the researcher's study approach (Patton, 2002). The audit trail shows the reader the process of tracking the emergent theory. Qualitative researchers believe that auditability or creditability are measures of rigor as it relates to the consistency of the qualitative research to include data collection, analysis, and findings (Sandelowski, 1986).

For this study, the researcher ensured that a paper trail took place that was consistent and valid. To this end, the paper trail was audited by a colleague of the researcher expert in qualitative research. Ensuring auditability also guarantees the maintenance of data and findings that may be used for future research stemming from the findings of the study, therefore enhancing the study credibility.

Dependability. Dependability refers to demonstrating consistency, quality, and appropriateness of the research process. Some authors see a similarity between

dependability and reliability in quantitative studies; both focus on consistency of a research instrument to measure a variable (Denzin & Lincoln, 1994; Patton, 2002). In the present study, to increase dependability, the researcher conducted a process of feedback from participants, or member checking. This process is also an aspect of confirmability, described below.

To further increase dependability, data obtained from participants were confidential. No other persons or entities outside of the researcher had permission to review the interviews, data, analyses, journals, memos, or any other written, printed, or digitally recorded information. The web-based interview provided the opportunity for participants' anonymous responses to all information and safeguarded their identities. Participants were assured of confidentiality procedures in the letter of introduction to the study (Appendix E).

Demographic data sheets and consent forms were kept separate from the data collection records. Printed data will be kept in a locked file in the researcher's office for no longer than 5 years and then will be destroyed. Electronic data were protected in a password protected server on the researcher's computer.

Confirmability. Confirmability is a concept considered to maximize the rigor of a research study and to ensure lack of researcher bias in data interpretation and reporting. Confirmability speaks to objectivity, neutrality, and reduction of bias (Denzin & Lincoln, 2000; Polit & Beck, 2006). Confirmability also means the neutrality of the research findings and that the findings meet the criteria of creditability, applicability, and audibility.

Confirmability in the present study was enhanced by means of member checking. Member checking or soliciting feedback from participants is an important method of ruling out the possibility of misinterpretation of the data by the researcher (Maxwell, 1996). Thus, to further increase dependability and confirmability, feedback from participants was solicited by the researcher (Denzin & Lincoln, 2000; Polit & Beck, 2006). The data were analyzed and fashioned into a model (Figure 1, presented in Chapter Four). This model, disseminated via Qualtrics, was sent to all previous recipients of the original email and also shared with the ARC nurses at their monthly meeting, with an invitation for participants' comments (Appendix H).

Participants were asked to comment on whether they felt the data were interpreted in a manner congruent with their own experiences (Lincoln & Guba, 1988). Ten participants replied to the invitation, of whom two did not comment. However, eight responded in a positive manner, as indicated below:

P1: OMG, it is me and my volunteering in a picture!

P2: Yes yes yes. This will help us recruit and retain YES!

P3: I am smiling big. It fits me.

P6: No previous volunteer experience, but all the rest is why I volunteer for disasters.

P8: it is powerful. Can you send me the entire paper?

P9: it expresses a worldwide view of why I volunteer with the Red Cross.

P10: You hit the nail on the head. Thanks.

According to Charmaz (2006), the theory generated from qualitative grounded theory data analysis should be credible, original, and useful. These positive responses confirm the credibility of the data, the analysis, and the model (Patton, 2002).

Transferability. Transferability refers to the potential for the findings to be applied to other situations or groups (Denzin & Lincoln, 1994, 2000; Patton, 2002). The degree of transferability is a direct function of the similarity between concepts or refers to the fit of the theory in relation to the phenomenon under study. The researcher can ease transferability by providing a clear, ordered, and consistent process of sample identification, data collection, and data analysis, as well as verbatim statements from participants. The researcher can give suggestions for transferability, but it is the reader's decision whether or not the findings or the grounded theory offered are transferable to other similar setting and situations (Graneheim & Lundmann, 2004; Lincoln & Guba, 1988).

In the present study, the researcher recognized that the study participants were affiliated registered nurse volunteers with the American Red Cross or another disaster response organization. Findings and the grounded theory generated may thus be transferable only to registered nurses in similar situations. However, as suggested in Chapter Five, replication and future studies may render greater transferability and generalizability to other registered nurses in disaster situations.

Chapter Summary

This chapter first provided an explanation of the grounded theory qualitative research method, followed by a description of the study sample and setting, including optimum sample size of approximately 20 to 30 respondents. Access to and recruitment

of the sample were next described, with inclusion and exclusion criteria. Participants included registered nurses who were affiliated volunteers with a disaster response organization such as the American Red Cross. Data collection procedures were then discussed, including the use of an asynchronous web-based interview to obtain data from participants. Data collection included both demographic information and responses to open-ended interview questions that focused on the critical influences used by registered nurses to decide to become an affiliated volunteer before a disaster. Advantages and drawbacks of online surveys were discussed, and the demographic items and interview questions described.

Data analysis techniques were described, including qualitative methods of open, axial, and selective coding, as well as the constant comparative method of analysis, to best identify the core themes and the subcategories revealed by respondents. Finally, research rigor was discussed with the basis in the literature and application in the present study, including the concepts of trustworthiness, credibility, dependability, confirmability, and transferability. Chapter Four presents the findings of this study with relevant verbatim quotations from the participants, registered nurses affiliated with disaster response organizations.

CHAPTER FOUR

FINDINGS OF THE INQUIRY

This chapter presents the findings of this grounded theory research study examining the critical influences and process that registered nurses use to decide to become affiliated volunteers with a disaster response organization before the disaster strikes. The overarching research question that guided this study was the following: What are the critical influences that registered nurses who are affiliated volunteers utilize in their decision making process to become an affiliated volunteer with a disaster relief organization?

Registered nurses are the largest group of health professionals across the country (U.S. Department of Labor, 2012) and as such constitute a significant element of any successful disaster response. Researchers believe that registered nurses who are trained in disaster response play a key role in disaster healthcare (Suserud & Halijamae, 2008; Veenema, 2006). However, disaster response organizations such as the American Red Cross do not have an understanding of the critical influences and processes that registered nurses use to decide to become affiliated volunteers with such an organization before a disaster strikes. Registered nurses who are trained and prepared have better coping skills when they volunteer. Thus, their volunteering and affiliation are imperative with a disaster response organization before a disaster occurs (Suserud & Halijamae, 2008; Veenema, 2006).

An exploration of the perspectives of nurses who actually have responded and work in a disaster must be conducted so that researchers will (a) understand better why nurses may elect not to respond during future disasters (Stangeland, 2010), and (b)

understand and appeal to the motivations and reasons that nurses who are needed do respond and volunteer.

In this chapter, findings of the study are presented. These include the following: (a) a description of the sample, (b) the results of data analysis, with codes and themes that emerged, (c) a restatement of the research question and alignment of findings to the research question, and (d) connection to theoretical underpinnings and formulation of a grounded theory. A summary concludes the chapter.

Sample Description

Responses. A total of 47 nurses responded to the surveys. Twelve surveys had to be discarded: one participant did not meet the criteria because she was deployed to Hurricane Katrina while on military active duty with her unit, one participant worked for the American Red Cross, one survey contained only demographic information, and nine surveys did not contain any data. Thus, a total of 35 surveys were used.

Demographic characteristics of the sample. The sample comprised 33 females (94%) and 2 males (6%), with ages ranging from 24 to 72. This gender percentage closely represents the overall registered nurse population in the state of Florida (Department for Professional Employees, 2012). Regarding ethnicity, 32 (91%) were Caucasian, 1 each (3%) were African-American, Asian and other (Asian-Cherokee Indian). No Hispanic nurses were represented. Nineteen (54%) were married, 2 (6%) were cohabitating, 4 (11%) were not married, and 10 (29%) were separated/divorced/widowed. Twenty-three participants (68%) had no children, 1 (3%) had one child between the ages of 14 and 18, 7 (21%) had children between the age of 23 and 60, and 3 (9%) had children over 61.

Education level varied among the participants, with 11 (31%) holding a bachelor's degree in nursing, 10 (29%) holding a master's degree in nursing, 6 (17%) holding an associate's degree in nursing, and 1 (3%) holding a doctoral degree in nursing. Thirty-three of the participants held a non-nursing degree. Fifteen (44%) of the participants worked full-time, 10 (29%) were retired, and 8 (24%) worked either on a per diem basis or part-time. One participant (3%) did not report work status.

Experience in practice ranged from 1-5 years to greater than 40 years in the six nursing specialty areas listed (Appendix G). Sixteen in the category of "Other" specified perioperative, primary care, oncology, education, psychology, neonatal intensive care unit, and home care. Table 1 summarizes the characteristics of the sample.

In the present study, to the question "To what extent do you consider yourself a nurse?" 33 (94%) answered "A great deal." Only 2 (6%) responded that they considered themselves a nurse "Somewhat." Fothergill et al. (2005) described specific characteristics of inactive registered nurses who volunteer. The inactive nurses strongly identified with "being a nurse" ($p = 0.001$) and were more willing to participate in volunteer work as part of the national effort for homeland security.

Thus, as Table 1 illustrates, the profile of the typical registered nurse in this study was a female in her 60s who was Caucasian. She was married with no dependents. Her highest nursing degree was a bachelor's degree and highest non-nursing degree was a master's. She worked full-time and had 31-35 years of nursing experience, and her primary clinical area was one of the following: perioperative, oncology/transplant, case management, psych, public health, home care, neonatal intensive care unit.

Table 1

Demographic Characteristics of the Sample (N = 35)

Characteristics	<i>n</i>	%
Gender		
Male	2	6
Female	33	94
Age		
20s	3	9
30s	1	3
40s	1	3
50s	12	33
60s	16	46
70s	2	6
Race/Ethnicity		
African-American	1	3
Caucasian	33	92
Asian	3	3
Other	2	2

(Table 1 continues)

Table 1 (continued)

Characteristics	<i>n</i>	%
Marital Status		
Married	20	56
Cohabiting	2	6
Not married	4	11
Separated/Divorced/Widowed	9	27
Number of Dependents		
14-18 years old	1	3
23-60 years old	7	20
61-older	3	9
None	24	69
Highest Nursing Degree		
Associate's	6	17
Diploma	7	19
Bachelors	12	33
Master's	9	27
Doctorate (PhD or DNP)	1	3

(Table 1 continues)

Table 1 (continued)

Characteristics	<i>n</i>	%
Highest Non-nursing Degree		
Associate's	3	9
Bachelor's	9	26
Master's	12	32
Doctorate	2	6
None	9	26
Current Work Status		
Part-time: 24 hours/week	4	11
Full-time 36-40 hours/week	16	46
PRN	4	11
Retired	10	29
Other	1	3

(Table 1 continues)

Table 1 (continued)

Characteristics	<i>n</i>	%
Years of Nursing Experience		
1-5	4	11
6-10	2	6
16-20	1	3
26-30	4	11
31-35	10	28
36-40	8	22
>40	7	19
Primary Clinical Area		
Med-Surg	7	19
Critical Care	8	22
Mother/Baby/Peds	5	14
Emergency	10	28
Ambulatory	9	25
Administrative/Education	14	39
Other*	16	46

*Perioperative, Oncology/Transplant, Case Management, Psych, Public Health, Home Care, Neonatal Intensive Care Unit.

In response to number of years participants had volunteered with the American Red Cross, the range was from 1 to 42 years. Nurses were also asked about the disaster response organizations they had volunteered with by name and time in years with the organizations. Volunteers affiliated with another disaster response organization volunteer years ranged from 2 to 17 years. Sixteen volunteered only with the American Red Cross, and 8 volunteered with an American Red Cross unit and also another disaster organization, such as the Federal Emergency Management Agency, Florida Reserve Medical Corps, State of Florida Disaster Medical Assistance Team, or Medical Reserve Corps. Eleven participants volunteered with another disaster response organization in addition to the American Red Cross. These organizations included the State of Florida Department of Health, Disaster Medical Assistance Team, hospital systems, independent medical team, Florida Medical Reserve Corps, and Specialized Medical Response Team. Table 2 summarizes these responses.

Results

The overarching question for this qualitative grounded theory study was the following: What are the critical influences that registered nurses who are affiliated volunteers utilize in their decision making process to become an affiliated volunteer with a disaster relief organization? The results are reported by interview question and themes within each question. Representative verbatim quotations by participants (identified with “P” and participant number), are included for each theme, as well as summaries of participants’ responses. Some participants’ responses are repeated because they encompassed more than one theme.

Table 2

Participation in Disaster Response Organizations

Disaster Response Organization	<i>n</i>	%
1. American Red Cross Only	16	46
2. American Red Cross Plus*	8	23
3. Other Disaster Response Organization**	11	31

Notes.

1. Volunteered for the American Red Cross only.
2. Volunteered for the American Red Cross and another disaster response organization.
3. Volunteered for another disaster response organization and did not volunteer for the American Red Cross.

* Disaster Medical Assistance Team State of Florida Department of Health, Florida Medical Reserve Corps.

**State of Florida Department of Health, Disaster Medical Assistance Team, hospital systems, independent medical team, Florida Medical Reserve Corps, Specialized Medical Response Team.

Question 1: Who and what influenced nurse to decide to become an affiliated volunteer? The first question asked for nurses' responses on several levels: Describe what and who influenced you in making the decision to become an affiliated volunteer with the above agency or agencies. Include your thoughts, feelings and goals when you decided to become a volunteer with each agency.

Theme 1: Need. A major theme that emerged was need. This was the basic social process that guided the decision making of the participants. Further, need provided the major driving force or incentive for their actions and had two major facets: external and internal. The external need was the nurses' empathy for the individual needs of the disaster victims and need in the community experiencing the disaster. Need was exemplified by participants in numerous statements.

P1: Nurses take care of people to meet or find the resources to meet the needs of souls that cannot do for themselves and help them to self-sustainability.

P3: When Hurricane Katrina hit the East Coast, I felt the need to help out in the disaster areas. Health and Human Services placed a call for volunteers and I applied and was deployed to Gulf area. My decision to help came from my own personal need to help out whenever the need arises.

P4: To assist during times of need.

P13: I wanted to volunteer to help during recent tornado outbreaks.

P15: There are so many people and places that could use extra help when something occurs.

P18: I wanted to help others in need with the skills I have.

P24: I believe and live my life based on the concept of social justice and believe that everyone needs to provide help to those in need.

P27: The events of 9/11 highlighted the need. As I gained knowledge of healthcare emergency management, the need for volunteer involvement became clear.

These responses, and many others like them, seem to support the compassion of registered nurses whose nature compels them to assist those in need, even when the nurses themselves are placed in unsafe situations. Registered nurses appear to have an ingrained desire to help others.

Theme 2: Give and give back. Nurses' feelings extended to their voicing reciprocity.

P1: My own feelings of wanting to give back to a community in need as I have been so lucky not to have a personal disaster and now had the time. It is gratifying to help those in need.

P6: I was a recipient of Red Cross services on two occasions . . . and this was the best way I could give back.

P10: Some of my goals with the American Red Cross include becoming certified in disaster training, helping with disaster relief efforts, and participating in community education.

P12: I feel very blessed in my life and wanted to give back and start my "life's work" during retirement.

P16: There are so many people and places that could use extra help when something occurs.

P32: I joined because I feel I should give back to the community and have not done very much of that in the past. I hope I can give more time, should the need arise.

Several participants combined the need of disaster victims with their own internal need of being able to help.

P3: When Hurricane Katrina hit the East Coast, I felt the need to help out in the disaster areas. Health and Human Services placed a call for volunteers and I applied and was deployed to Gulf area. My decision to help came from my own personal need to help out whenever the need arises.

P7: The ARC gives me a way to help individuals of all ages in all ways of need and to help my community or to have my community be an open-arms place. I am a nurse. Nurses take care of people to meet or find the resources to meet the needs souls cannot do for themselves and help them to self-sustainability.

P9: Being a nurse, felt like it was my Christian duty.

P19: Helping a person whose world is suddenly torn apart by a disaster, manmade or natural, by providing healthcare and nonconditional caring fills my heart and soul. Money cannot buy this feeling.

P20: I have been given so much support through the years in getting to where I am that this is a way I can give back.

P25: I believe and live my life based on the concept of social justice and believe that everyone needs to provide help to those in need.

These responses indicate that a major motivation of the participant registered nurses who volunteer is that of giving service to others and “giving back” because they recognize they have been given much. In the process, the nurses indicated that they enrich their own lives in ways they had never expected.

Theme 3: Gratification. Participants expanded on the theme of giving and giving back as they recalled the responses of victims they helped.

P5: I reflected on the clients and how grateful their eyes were to have a safe place and someone with the skills to help in varied ways.

P19: Helping a person whose world is suddenly torn apart by a disaster, manmade or natural, by providing healthcare and nonconditional caring fills my heart and soul. I come away tired, dirty, and with a sense of gratification knowing I made a difference.

P21: believe that everyone needs to provide help to those in need.

P31: I am inspired each time there is an outpouring of support during a disaster.

One participant who identified her clinical area as the emergency department spoke about how all the victims of the disaster need help:

P26: [In a disaster] Everyone is a LEGITIMATE patient. That can't be said for everyone who presents to our ERs nowadays. . . . Taking care of patients that truly need you is startlingly satisfactory.

Similar to the gratification that a career in nursing brings to a regular nursing position (Olsen, 2007), nurses responding to a disaster, as participants attested, also experience gratification. They indicated that sometimes the gratification is unexpected but always inspiring.

Theme 4: Asking. Part of the first research question was for participants to identify who influenced them to become an affiliated volunteer in a disaster organization. Sources were diverse, such as friends, colleagues, other volunteers, schools, or advertisements. The majority of volunteers were asked by another individual, and several responded to advertisements.

P1: I was asked by my BFF [Best Friend Forever].

P4: Another person [Name] asked me to volunteer for the American Red Cross.

P8: A friend, trained to volunteer in the field, headed to Puerto Rico from [state] to work in a disaster there. I wanted to go too but found out I needed to be trained.

P7: related that she was asked by several others and succinctly summed up.

P7: A neighbor and young nurse from Atlanta and an older local pediatric nurse called and invited me to take the ARC nursing course. I did.

Several other participants related having been a recipient of American Red Cross disaster services and felt they could give back as a nurse.

P6: As a child I lived in a flood zone, so I was a recipient of Red Cross services on two occasions . . . and this was the best way I could give back.

P19: They [Others] strongly encouraged me to join, stating "You are the kind of nurse we need.

Some participants joined the American Red Cross as nursing students.

P31: I started out with the DAT [Disaster Action Team] program for the American Red Cross while in nursing school.

P17: My professors at school and the recruiters at Red Cross influenced my decision.

P9: I became affiliated with the ARC as a requirement of my curriculum at [university].

P10: Nursing school influenced my decision to become an affiliated volunteer of the American Red Cross.

Other participants were asked to volunteer by their employers.

P22: I was asked by the local hospital [Name] to volunteer in South Florida following Hurricane Andrew.

P6: Red Cross credentials allowed me to respond to national disasters like the mud slides in California, 9/11, Katrina, Rita, and Haiti. HCA [HealthCare Assistants] staffs their facilities; they have in a disaster area to relieve their employees.

P16: After 911, when my company asked if I would be available, I automatically said yes. . . . There are so many people and places that could use extra help when something occurs.

Several participants responded to advertisements.

P3: Health and Human Services placed a call for volunteers and I applied and was deployed to Gulf area.

P21: I saw in the newspaper about a class for sheltering with the Red Cross. After taking the class, I saw it was noted that I was a nurse and was encouraged to assist with more activities within the RC.

The responses indicate that if registered nurses are asked, they will volunteer.

These participants responded to the call to volunteer, whether from individuals, classes, or the media.

Summary: Nurses' thoughts, feelings, goals. From the participants' responses, volunteering motivation appears to be a combination at a global level of self-interest and concern for the well-being of others. Participants' comments established that they received a remarkable level of satisfaction from volunteering, so much so that they were

happy to work as volunteers and in often dangerous and very difficult situations, without monetary compensation.

The themes that emerged from analysis of Question 1 can be described as the antecedents to volunteering, that is, why registered nurses get involved. The themes can further be described as self- and other-oriented. Nursing values of human caring and of meeting the needs of the disaster victims were most important to the volunteer registered nurses. Nurses possess the clinical skills and also skills in organization and leadership that enable them to respond to each situation, emotional or physical. I believe true nursing begins with the registered nurse and radiates outward destined to touch everyone in its path.

The “who” that influenced the registered nurses came from many sources. The nurses were asked by many sources and they all volunteered. Through interpretation of the nurses’ narratives this researcher comprehended that it was not who ask them to become affiliated that was important but the act of asking. Therefore, in examining the theme of asking in relation to critical factors that influence registered nurses to become affiliated volunteer with a disaster response organization this researcher draws out the following: Question One registered nurses volunteer and gain by giving and they volunteer when asked. The core theme is: “Gain by giving when asked.”

Question 2: Advice for becoming an affiliated volunteer. The second question asked, What advice would you share with a registered nurse considering becoming an affiliated volunteer with a disaster response organization? Thirty-four out of the 35 participants responded to Question 2. Several important themes became evident, with several participants enunciating more than one.

Theme 1: Readiness. Participants were vocal on the need for readiness and preparedness. Their advice was far-ranging.

P1: You must be prepared for anything.

P14: Take advantage of the training offered. . . . Be prepared.

P22: Be prepared for anything . . . be prepared to do anything.

P23: Be prepared.

Other participants expressed their advice for preparedness or readiness in the form of advising education and classes.

P4: Take classes.

P9: Come to the meetings and be informed.

P10: Participate in as many educational opportunities as you can! The American Red Cross offers numerous opportunities for nurses to continue their education.

P14: Take advantage of training offered, beyond the training for your position. Crosstrain in other Red Cross activities. Also take advantage of training and conferences offered by other disaster agencies. . . . Participate in drills in the community.

P19: Attend the monthly meetings and educate yourself on the supplies and equipment you will be using in the field. Take advantage of the many resources and educational offerings, and your fellow volunteers' knowledge.

P25: Take all the courses/classes that are available within your organization and reach out to others already present in the organization for other/outside courses/classes.

One participant referred to both preparedness and education:

P6: Take the classes, they are free. Be prepared even if you don't get the opportunity to use your skill.

The theme of preparedness, including being ready and informed, was similar to that in a study by Rivers, Speraw, Phillips, and Lee (2010). In an after action report from a disaster relief operation team, the researchers reported that the efficacy of the team was

affected by the lack of training and absence of known detailed protocols regarding disaster assistance. The participants in the present study also identified the necessity to be prepared and be informed. Specifically, many used the same words: “Be prepared.” Several gave advice that nurses should take classes and courses in the disaster organization they volunteered with, as well as to reach out to other disaster response organizations for additional education.

Theme 2: Flexibility. In addition to preparedness, nurses emphasized the need for volunteers to be flexible, especially important in disaster situations.

P3: Be patient—so you will need to be flexible and understanding.

P17: Be flexible; understand that priorities change often.

P22: Be prepared to do anything and to sleep/eat/rest in less than optimal situations.

P23: Be flexible.

P33: Be flexible.

P35: Just be willing to do a variety of things and be willing to be available when disasters arise.

The participants recognized that complex work environments, such as a disaster scenario, require the disaster response nurse to be flexible in adapting to the disaster victims’ needs as well as the environment. Disaster nurses must remain flexible in the face of many changes and the unknown (Baack & Alfred, 2013). One participant used the word “agility” to refer to flexibility. Agile disaster nurses have the capacity to rapidly respond and flexibly cope with unexpected changes. These nurses not only survive but thrive as disaster nurses. These qualities will allow them to be resilient with flexibility to respond to challenges with the resilience to deliver the services needed.

Theme 3: Resilience. Flexibility also led to the theme of resilience, especially in its aspect of self-care, for many participants.

P1: You need to know how to take care of yourself.

P12: Also remember to practice self-care. . . . It is easy to neglect that on disaster operations.

P19: Be respectful, grow Teflon shoulders, and develop a “thick skin.” In other words, don’t allow your feelings to get in your way of performing your work.

P26: If you can’t keep yourself hydrated in a normal environment forget coming on board. I don’t have time to take care of you and now I’m down a team member. Seriously.

Resilience is key to effective decision making under high stress and can be defined as having the flexibility, agility, and strength to adapt effectively to sudden, enormous stress and change, and recover quickly (Siebert, 2005). Participants recognized that resilient disaster nurses can operate effectively at a high speed of change. This resilience allows them to combine their knowledge, skills and attitudes to act in competent and necessary ways. Resilient, agile, flexible behavior is essential to buffer the turbulence of the disaster environment and promote a climate of quality competent care for the disaster victims (Siebert, 2005).

Theme 4: Do it. As part of their advice, participants strongly recommended acting if one had the inclination and empathy to volunteer as a disaster nurse..

P7: My advice would be to follow your heart, drive, and interests. . . . Jump in and explore.

P11: Do it! It’s very fulfilling.

P16: Just sign up and do it. You will receive personal satisfaction just knowing you might be able to help.

P18: DO IT!

P20: It is a wonderful experience! Don't pass it up.

P29: There is a place for everyone.

P31: It is a worthwhile service.

As these comments indicate, participant nurses who were affiliated volunteers encouraged other registered nurses to “take the plunge” and volunteer. This bold message was transmitted strongly and with confidence by participants, who counseled that other registered nurses should follow their inclinations and volunteer. Participants also pointed out the rewards of such volunteering.

Question 3: Previous volunteer experience. The third question asked participants the following: Describe any previous volunteer experience before becoming an affiliated volunteer with the disaster response organization. Start with high school, please. All 35 participants responded to this question. The respondents had a wide range of experiences.

Theme 1: High school volunteer. Participants started volunteering as early as high school.

P1: I was a “Candy Striper” at a hospital while I was in high school.

P4: High school [Name] mental health club, St John's ambulance brigade.

P8: High school and after, helped as a counselor and . . . Smile Day Camp for kids with cerebral palsy.

P6: As soon as I was old enough, I joined the Red Cross.

P16: Volunteered in high school to teach sports in high school.

Theme 2: High school to college. Several participants made the transition easily from high school to college volunteering.

P11: Participated in environmental volunteer organization/efforts in high school and college.

P13: Once in college, these volunteer services continued.

Theme 3: Churches. Religious organizations played a large part in participants' volunteering.

P2: I also volunteer at my church, and still volunteer at my church presently.

P9: Church volunteer with different missions.

P20: I was also very active with my church.

P22: Mostly volunteering with church and school-related activities.

P25: Church-affiliated volunteer work.

P33: Many community and church groups.

Theme 4: Community and school organizations. Similarly, community and school groups were avenues for volunteering.

P3: Volunteered with school and community groups.

P5: Community outreach.

P7: Majority of our activities were centered on school and community.

P9: Back to school and community education.

P14: Served in multiple positions with the PTA, including president of an elementary and middle school.

P18: I have been the cochair for our community Relay for Life [American Cancer Society].

Theme 5: Hospitals. Hospitals were an ongoing volunteer venue for participants.

P1: I always volunteered in nursing homes and hospitals.

P2: I was a "Candy Striper" at a hospital.

P9: Volunteer at VA [Veterans Administration] hospital.

P10: [Name] Hospital in [City], Florida. Ensured quality control for prescription filling, including drug verification.

P13: I was a volunteer “pink nursing aide” at the local hospital.

P19: Volunteered with hospital-related activities over the years.

P25: Hospital disaster team.

In summary, three participants reported no previous volunteer experience and 16 described volunteering in high school. Organizations included the Girl Scouts, high school clubs, and camps. Several participants who began volunteering in high school described how their volunteering continued into college, some because their university required volunteer hours, and this was how they became involved in the American Red Cross. Fourteen participants noted that their volunteer careers began in adulthood. The major outlet for volunteering was community, school, hospitals and church organizations.

According to the U.S. Department of Labor Bureau of Labor Statistics (2012), religious organizations were the major type for which volunteers worked the most hours. Eight participants in this study volunteered for churches, and eight volunteered in hospitals. The U.S. Department of Labor Bureau of Labor Statistics (2012) recorded that community service organizations followed religious organizations in number of volunteers. Based on the present study results, as hospitals may be considered community service organizations, the high rate of hospital volunteers may fall into this category. It should be noted also that many of the study participants had volunteered for more than one category of organization in their volunteer careers.

Question 4: Additional information. The fourth question asked, What additional information would you like to share about your decision to be a volunteer with the

disaster response organization? Although the question was left blank by 11 participants, the responses of those who did answer are congruent with data in the previous questions. Previous themes were reiterated.

Theme 1: Gratifying. This theme recurred from previous questions.

P1: It is truly a personal gratification that at times goes unnoticed by others.

P3: Volunteering with Red Cross can be fulfilling.

P8: It fills my life with meaning. . . . The experience uplifts me for the good. Volunteering with the ARC as an RN has, by far, been the most meaningful job I've had as a nurse. I prefer to be on volunteer status for the community than be paid. Means more and the experiences are greater.

P11: The primary reason I volunteer is how it makes me feel.

P12: My work with the Red Cross has been life-changing. It has been a huge blessing to me.

P22: I would do it again gratefully. It is a special honor to help people when they are at their most vulnerable.

P35: Really makes you feel good about what you can do as a nurse and as a person.

P7: This quote sums it up: "ALL THAT IS RELLY WORTH DOING IS WHAT WE DO FOR OTHERS" [participant's emphasis].

Theme 2: Give and give back. Like Theme 1 for this question, this theme recurred from previous responses.

P2: I want to give back, to honor my father like he honored our country.

P6: Nurses are helpers and fixers by nature.

P10: Opportunity for me to help out others in need during difficult times. Gives me the opportunity to share and use my nursing knowledge in a time of great need. Volunteers are important during disaster response efforts, and as a nurse I feel like it is my duty to be available and properly educated if I am needed.

P11: The second reason I volunteer is the look on the faces of people you help.

P22: I am able to give my time and skills and efforts. . . . I will always remember this chapter in my career.

P23: I think it is a good thing to help people.

P30: Use your skills, give back to the community.

The themes in Question 4 mirrored the themes in Question 1. Many of the participants reiterated that the volunteer work was personally gratifying and very fulfilling. They repeated that they wanted to “give back” and felt that volunteering with the disaster response organization was the best way they could help others in need. Participants also repeated the advice that one must have adaptability and flexibility and be able to “roll with lightning speed.” They pointed out that disaster volunteering “is not for the faint of heart.” And they recommended preparation in the form of training and classes was crucial.

Question 5: Diary or blog during disaster experience. The fifth question asked, If you kept a diary or blog during your disaster deployment, would you be willing to share the document? This question was answered by 31 participants. Out of these, 24 responded that they did not keep a diary or blog.

Theme 1: No time, too busy. Many participants reiterated this theme as they recalled their disaster experiences.

P6: I don't log or blog. These deployments are long and arduous, and you hit the road running.

P8 I have not kept journals. When I am in the midst of a disaster, it is all I can do to attempt to keep up with the paperwork that the ARC requires of us.

P27: I was too busy keeping operational notes and did not keep notes on feelings, etc.

Theme 2: Wish I had kept a record. Some participants expressed regret that they had not kept diaries or records of their experiences.

P1: I did not [keep a diary] but wish I had.

P13: I should have done this. I still may do this, as there are so many experiences worth recording. I would share this should I complete it.

These responses indicate that the registered nurses recognize that the demands of the job overshadowed their opportunities to record their volunteering experiences, even though some wished they had kept a journal or blogged. One participant had a diary from her first deployment, and another said she had recorded 50 fifty diary entries. Two participants mentioned that they had photographs of their disaster deployments. Nurses also recognized the value to themselves and others of sharing their disaster volunteer experiences in writing.

Restatement of Research Question and Findings

The research question guiding this study was the following: What are the critical influences that registered nurses utilize in their decision making process to become an affiliated volunteer with a disaster relief organization? This question was intended to increase understanding of registered nurses' decisions to volunteer, toward greater insight and use by disaster organizations for more effective recruitment, training, and deployment. Five interview questions were formulated from the research question to elicit responses from participants who were registered nurses affiliated with a volunteer disaster organization.

The qualitative grounded theory study approach used in this exploration was appropriate to the research question and purpose. Analysis of participants' responses

yielded several themes. These helped elucidate and explain the phenomenon of registered nurses' decision making in volunteering with a disaster organization.

The themes that emerged centered around Need of both the nurse and victim, Give and Give Back, Gratification, and responding to Asking by others. These themes were evident not only in participants' responses to Question 1 but throughout and especially in Question 4, further reinforcing these themes.

The themes reflected registered nurses' volunteering activities because they see or feel the need, want to give back, and experience the gratification of giving and getting back. Most responded positively and enthusiastically when asked. The core theme encompassing all others may be this: "Gain by giving when asked."

Another emerging core theme was resilience. Resilience was supported by readiness and flexibility, evident in participants' responses to Question 2. Readiness encompasses training and classes and, most importantly, the additional nursing skills the affiliated volunteer registered nurses bring to the deployment. Resilience is developed, often painstakingly, over time by the individual working through challenging situations and never giving up (Siebert, 2005).

Disaster responses occur in diverse settings, often in austere physical conditions and under heightened emotions. Flexibility, or agility, allows resilient individuals to adapt to difficult situations, and disaster nurses, as participants indicated they learned to withstand sudden unexpected changes and can recover quickly afterwards. Siebert (2005) observed that

highly resilient people are flexible, adapt to new circumstances quickly, and thrive in constant change. Most important, they expect to bounce back and feel confident that they will. They have a knack for creating good luck out of circumstances that many others see as bad luck. (p. 141)

Participants recognized their previous experience helped them in their present disaster volunteerism, as indicated in their answers to Question 3. Some realized they would have liked to keep diaries or blogs, as reported in their responses to Question 5. Most importantly, in response to Questions 2 and 4, participants emphasized the theme of following one's desire to give and give back and the importance of volunteering by advising, "Do It!"

Overall, the participants' responses to the interview questions in terms of their clarity, specificity, and passion for volunteering reflected the critical influences registered nurses use in their decision making process to become an affiliated volunteer with a disaster relief organization. Table 3 illustrates the themes and subthemes.

Formulation of a Theory

Based on participants' responses and the analysis of the data, a grounded theory was created of the critical influences used by registered nurses in deciding to volunteer for a disaster response organization. This theory was generated from the philosophical underpinnings, discussed earlier, of symbolic interactionism (Blumer, 1969) and pragmatism (James, 1970; Suddaby, 2006). Symbolic interactionism focuses on subjective rather than objective points of view, in which individuals adjust their behavior to the actions of others or interactions with situations toward symbolic interpretation (Blumer, 1969). The registered nurse participants in this study reacted and responded to others and interpreted their actions in terms of need, giving and giving back, and gratification.

Table 3

Emergent Themes and Subthemes

Category	Themes	Subthemes
Core	Gain by giving when asked	Guiding force behind all themes Consider self nurse above all
Major	Need	Need is multifaceted Registered nurses have a need to give Need of the disaster victims to receive Need of community experiencing the disaster Self- and other-oriented Human caring
Major	Give and give back	Give back to those who have given much Give to honor others In giving the nurses get back Use skills as registered nurses

(Table 3 continues)

Table 3 (continued)

Category	Themes	Subthemes
Major	Gratification	Remarkable level of satisfaction Helping is rewarding While helping registered nurses benefit Serving Personnel satisfaction Very fulfilling
Major	Asking	Diverse sources of who asks Not who asks but the act of asking Asked by many sources. including the media
Major	Necessity to be prepared and informed	Be prepared Be ready Be resilient Know how to take care of yourself Take classes Stay up to date with training
Major	“DO IT”	Follow your heart Don’t pass up the experience There is a place for everyone

Pragmatism emphasizes practical consequences as essential to meaning and value (Glaser & Strauss, 1967). Pragmatism is grounded in one's view of the world and individual experience and underpins the concept of symbolic interactionism (Blumer, 1969). The registered nurses in this study pragmatically recognized the meaning and value of their volunteering to the disaster situation, the victims, and themselves. Figure 1 presents the researcher's model of the grounded theory depicting the critical influences in registered nurses' decision making to affiliate with a disaster response organization.

As the model shows, the nurses' behaviors are largely governed by the central theme of "Gain by Giving When Asked" as they volunteer with a disaster response organization. The decision making process is not a linear one; the four circles indicate the overlapping of experiences and verbalizations that contributed to the decision.

"Gain by Giving When Asked" is the core theme, from which the four other themes are derived, as shown in each circle and discussed above. The model shows that the nurses' Previous Experience in a range of venues and often engaged in for many years contributed to their helping point of view. This point of view enabled them to respond to many individuals and groups Who Asked them to volunteer. These two aspects further contributed to the nurses' volunteering as they recognized more clearly and enunciated Why they volunteered in the various disaster situations. Finally, they also enunciated their views and understanding of Characteristics and Attributes for Success as a disaster nurse.

Registered Nurses Becoming Affiliated Volunteers for a Disaster Response Organization

DISASTER

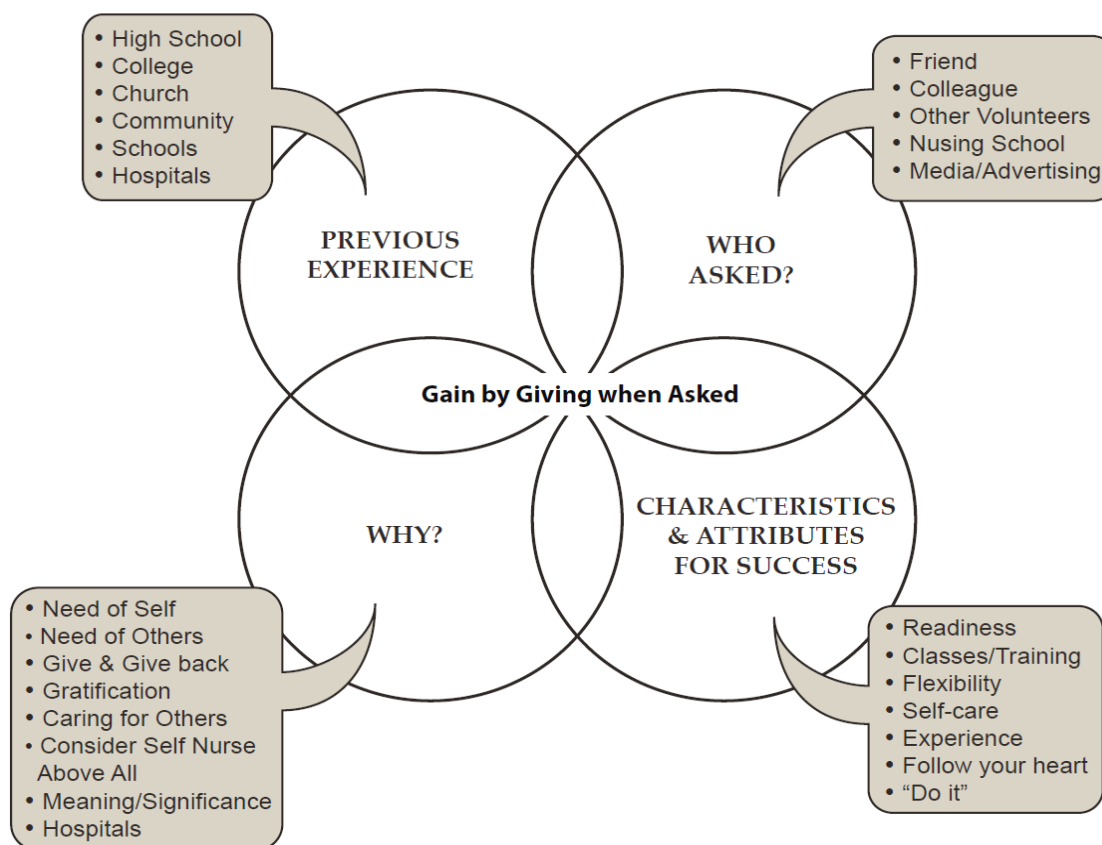


Figure 1. Grounded theory: Critical influences on registered nurses' decisions for volunteering in a disaster organization.

Chapter Summary

This chapter presented the results of the current study on the critical influences utilized by registered nurses towards becoming an affiliated volunteer with a disaster response organization. The first section provided an overview of the study in terms of the problem, the overarching research question, and an outline of the chapter. The second section described the demographic characteristics of the sample of 35 registered nurse participants. The third section described the study results in terms of the emergent themes and subthemes derived from analysis of the five interview questions with the participants, including pertinent verbatim quotations.

Four themes emerged in response to the question of who and what influenced the registered nurses to volunteer: The core theme was “Gain by giving when asked,” with helping others and personal satisfaction major motivators. The major themes were Gratification (great satisfaction, personal rewards of helping), Asking (by others, many sources), Necessity to Be Prepared and Informed (be ready, resilient, and self-reliant; stay abreast of training), and “Do It” (follow one’s heart and do not pass up the experience).

Three themes emerged in response to advice nurses gave for becoming an affiliated volunteer: readiness, flexibility, resilience, and “doing it.” Four themes emerged in response to nurses’ previous volunteer experience: high school, high school to college, churches, and hospitals. Two themes emerged, overlapping with earlier themes, for additional information nurses shared: gratifying and give and give back. Two themes emerged from responses to whether nurses kept a diary or blog during disaster experiences: no time and too busy and wished they had kept a record. Table 3 illustrates the themes.

Based on the data analyzed, a grounded theory was formulated that derived from the philosophical underpinnings of social interactionism and pragmatism. As Figure 1 illustrates, the aspects and themes of the grounded theory are interrelated and overlapping. In Chapter Five, the study results are discussed, with significance for various aspects of nursing, and conclusions are presented.

CHAPTER 5

DISCUSSION AND CONCLUSION OF THE INQUIRY

The purpose of this qualitative grounded theory study was to discover and gain a comprehensive understanding of the critical influences utilized by registered nurses who decide to volunteer for disaster response and become affiliated with a disaster response organization before the disaster occurs. A volunteer sample of 35 registered nurses who were affiliate volunteers with the American Red Cross or other disaster organizations completed an asynchronous web-based demographic questionnaire and open-ended interview. Data from five interview questions were analyzed with constant comparative qualitative methods, with themes emerging in relation to each question.

In this final chapter, the meaning of the study is discussed, as well as an interpretive analysis of the findings. The significance of this work for the discipline of nursing is explored, with emphasis on implications for education, practice, research, and health/public policy. Finally, the strengths and limitations of this research are discussed, with recommendations for future study and conclusions.

Exploration of the Meaning of the Study

Disasters strike at any time. They may be predicted or take place without warning; they may be large-scale or local, extreme or limited. Registered nurses are considered essential responders and have responded in great numbers at the first signs of disaster. The outpouring of registered nurses in response to various disasters such as Hurricane Katrina, the Haiti earthquake, and Hurricane Sandy evidence this heartfelt response of registered nurses to meet the needs of victims.

However, for volunteer registered nurses to be most helpful and effective in disasters they must be familiar with the system and policies of the disaster response organization (Baack & Alfred, 2013). Nurses must exercise both clinical skills, the “science” aspect of practice, and humanitarian empathy, the “art” aspect in disaster situations. Not only familiarity but training enables registered nurses to respond confidently and effectively to ensure that the needs of disaster victims will be met. Nurses must also be highly motivated and see meaning in volunteering not only because of the unfamiliarity and often terrifying uniqueness of each disaster but also because hours are long, conditions are difficult, and the extent of human suffering nurses witness can be devastating (Gebbie & Qureshi, 2002; Hsu et al., 2006; Markenson et al., 2005).

The meaning of this study, as revealed in the qualitative analysis and underlying philosophical foundation of symbolic interactionism and pragmatism, lies in the heartfelt and passionate responses and dedication of the registered nurse participants. The themes that emerged demonstrated the critical influences of nurses’ decision making for volunteering and provided evidence of what registered nurses themselves view as essential influences for disaster volunteering.

This study has meaning not only for registered nurses who may desire to affiliate and volunteer with a disaster response organization but also for the organizations themselves. With a better understanding of registered nurses’ critical influences in the decision process, the organizations will be better prepared to develop effective strategies for volunteer recruitment, retention, measurement of necessary competencies, and education of volunteers.

Interpretive Analysis of the Findings

Rich literature exists on volunteerism around health-related issues (Clary et al., 1998; Cnaan & Goldberg-Glen, 1991; Pitterman, 1973). However, studies do not speak directly to volunteerism with registered nurses during disasters and the conclusions of such studies may not extend to registered nurse volunteers during disasters. The literature also shows that volunteerism at a disaster site is a complicated issue (Gebbie & Qurashi, 2002; Hoard & Tosatto 2005).

The many aspects of the critical influences of registered nurses' decision making for affiliate volunteering with disaster organizations were revealed by the findings of this study. A core theme emerged: "Gain by giving when asked." This core theme illuminates the basic social processes, grounded in social interactionism and pragmatism, experienced by registered nurses who become affiliated volunteers with disaster response organizations. The various overall influences, as illustrated in Figure 1, were previous volunteer experience, individuals and organizations that asked the nurses for volunteer help, why the nurses volunteered, and characteristics and attributes they saw as necessary for volunteering success. These influences, or themes, were interrelated and for each the nurse participants supplied specific subthemes and reasons. Especially noteworthy were the repeated themes (responses to Questions 1 and 4) of giving and giving back and gratification. These findings concur with the reflection from Sheehy (2001), Emergency Nurses Association president, who paraphrased President John F. Kennedy's words in relation to emergency nurses: "To whom much is given, much is expected" (p. 199). The participants in the current study demonstrated they were given desire, compassion,

fortitude, and clinical and human resources skills, and they were willing to put themselves in disaster situations where much would be expected of them.

The study findings also confirm findings of previous studies on volunteers. Pitterman (1973) identified motivational classifications for older person's decisions to volunteer as altruistic, social, or material. Altruistic motivations in particular are feelings and behavior that show a desire to help other people and a lack of selfishness. Frisch and Gerrard's (1981) study reinforced the concept of a two-factor model; they found that the volunteers in their study were motivated by either altruistic motives or egoistic motives ($p < .0001$). This finding relates to the present themes of perceiving others' needs (altruistic) and needs for oneself, either to give back or to gain gratification (egoistic). Actions designed to help another person in need, therefore, could be motivated by a desire to gratify one's own need rather than a desire to enhance the welfare of the person in need.

Gidron (1978) surmised that the rewards for volunteering stemmed either from personal motives, the opportunity for self-fulfillment, development of social or interpersonal relations, indirect economic gain, or gaining work experience. Some of these rewards accord with the critical influences of the present participants: need to give and give back (personal) gratification (self-fulfillment), previous experience volunteering (gaining work experience).

Similarly, in Gillespie and King's (1985) study of American Red Cross volunteers, the most common reason given by volunteers to engage in volunteer work was "to help others." The second and third most frequently given reasons were "to help the community" and "to obtain job training and job skills." These themes also relate to

the themes discovered in the present study. Social interactionists (Blumer, 1969; Snow, 2001) pointed out that roles serve as connections or bridges between the individual and the group as well as between personal history and social structure. In the case of the current study participants, registered nurses who are affiliated volunteers with a disaster response organization, assuming the role of caregiver gives them a means to connect to the disaster victims. Moreover, some participants themselves had been recipients of care from a disaster response organization; their personal history helped shape their decision to become an affiliated volunteer.

All the participants identified who influenced them to become an affiliated volunteer. Participants identified friends, colleague, other volunteers, nursing schools, media, and advertising. Additionally, participants had a long history of volunteerism; many volunteered in high school and continued through college and beyond. Religious organization was one of the most discussed organizations for volunteering, as were community organizations. Out of the 35 participants, only three had had no previous volunteer experience. These previous experiences concur with those of many volunteers (Musick & Wilson, 2008). It would appear that in the present study previous volunteer experience is an important critical influence of the affiliated registered nurse volunteers.

Previous experience is particularly important because of the nature of a disaster. The skills experienced registered nurses bring to the site are essential. Nurses take the initiative, surmise instantly what actions are required, and act quickly in a given situation. They act with full confidence and become role models for less experienced nurses in the field. As experienced registered nurses continue to volunteer for disaster duty, in addition to sharing their expertise from the past, they also take classes and training courses to

learn new nursing skills and enhance their social skills. The nurse volunteers can then use these increased skills in disaster situations to render greater service and to benefit the larger community.

Characteristics and attributes identified by the participants for success as an affiliated registered nurse volunteer included resilience, flexibility and self-care. Resilience training is a key characteristic and should be incorporated into all disaster preparation training and be based on readiness, flexibility and self care/buddy care. According to Previous Surgeon General of the U.S. Department of Health and Human Services, Vice Admiral Richard Carmona (2006), the first line of defense in emergency preparedness is personal resiliency. He observed that the task of readying oneself is not easy and the price of being prepared may be great. However, the price of not being prepared is greater (Carmona, 2006).

As the participants in the study also emphasized, volunteers must take responsibility for their own personal well being and needs. Without self-care, volunteers will not be able to care for others. Humans are resilient and most everyone will recover in a short amount of time especially if they take care of themselves. Registered nurses' primary commitment is to the victims of the disaster. However, the fifth provision of the ANA (2010) Code of Ethics stated that nurses owe the same duty to themselves as to others, including the responsibility to preserve integrity and safety (Pfimmer, 2009).

Because of the rapidly changing circumstances during a disaster, adaptability, flexibility, and agility are essential. Flexibility and adaptability increase the nurse's capacity to function efficiently and effectively during disaster events. Baack and Alfred (2013) pointed out that roles must be understood, responders need to be prepared, and

that flexibility is essential, despite “by the book” training. Flexibility in a multifaceted disaster response promotes optimal outcomes (Fothergill et al., 2005). The development of skills, competencies, and knowledge that promote flexibility are essential elements for volunteers’ survival and maximum helpfulness as affiliated volunteer registered nurses in a disaster organization (Siebert, 2005).

The theme of simply “doing it” and following one’s heart recurred often in the participants’ responses. They encouraged all to just “Do It” and emphasized the rewards and gains. This emphasis was also pointed out by Gidron (1978) and Merchant et al., (2010), and Papadakis et al. (2004) with reference to volunteers in various disasters,

As part of analyzing and discovering the emerging themes of this study of critical influences on registered nurses’ decisions to affiliate with a disaster organization, the researcher reflected on her own experiences in the U.S. Army. The situations and characteristics for successful completion of the missions may be similar. Army training teaches resilience, the ability to bounce back in stressful situations, as well as readiness, the ability to accomplish the mission of deployment at hand. Army training emphasizes resilience to maximize mission readiness. Training for disaster response nurses emphasizes similar qualities: resilience, flexibility, and readiness provide the interrelated strategies needed for registered nurses in disaster situations to respond most quickly and effectively.

Significance of the Study for Nursing Knowledge

The findings from this study of the critical influences on the decision making of registered nurses to volunteer prior to a disaster have significance for many aspects of the discipline of nursing. This study has significance for nursing knowledge and

ramifications from several perspectives. These include education, practice, research, and public health policy.

Significance for nursing education. The study results may increase awareness and understanding for all nurse educators, practicing nurses, and students about the importance of education and training of registered nurses in their decisions to become affiliated volunteers with a disaster response organization. Participants pointed out the necessity for adequate education and training in maximum effectiveness of the tasks disaster nurses are called upon to perform.

One participant noted that an after action report from a disaster relief operation team indicated that the efficacy of the team was affected by the lack of training and absence of detailed protocols regarding disaster assistance. Several other participants encouraged registered nurses to take advantage of training offered beyond what is needed for their position or to take advantage of free classes offered in various disaster response organizations. In terms of education, participants in this study identified a gap in recognition of the concept of resilience, as well as practice. As these responses imply, disaster education for registered nurses may result in positive outcomes for individuals and populations involved in a disaster. Outcomes may include decreased mortality rates, improved health status, and decreased disaster-related costs (Jennings-Sanders, Frisch, & Wing, 2005).

Further, effective teaching methods and learning strategies should be incorporated into case studies and cooperative learning in the nursing education classroom, so that affiliated volunteers may explore and gain practice in interactive problem-solving

approaches to disaster victim care situations and work with colleagues in the disaster setting.

Kirwan (2011) pointed out that the first step in preparedness is education. Organizations that accredit schools of nursing require course completion in disaster preparedness (Ruder, 2012). However, schools of nursing need to teach disaster nursing not only with lectures but with incorporation of simulations and participation in disaster drills in their geographical areas. The study results imply that a common protocol for disaster nursing is necessary. U.S. schools of nursing and nursing faculty should collaborate to provide all nursing students with a common foundation for instruction in disaster nursing (Jennings-Sanders et al., 2005).

Another significant implication for nursing education is the use of distance or on-line learning as one of the primary sources of classes for the registered nurses who respond to disasters. Participants in this study reported that ongoing classes and training as part of lifelong learning for the disaster nurse were necessary for appropriate responsiveness. The time for preparation and volunteering is not when the disaster occurs but before it strikes. Volunteers need the training to respond appropriately and ensure personal safety of the victims and themselves. They also need time to acquire and become familiar with appropriate personal protective equipment and other necessary tools. Advance preparation enables individual skills, knowledge, and abilities to be well utilized for the benefit of the disaster casualties.

It is believed that the majority of registered nurses in most of the United States are largely unprepared to respond to and manage a disaster situation. Nursing curricula and continuing education programs for registered nurse should incorporate emergency

preparedness information (Pfimmer, 2009). As noted earlier, Kingma (2008) stated that disaster nursing is a priority for the International Council of Nurses, with the focus on strengthening the Nursing Disaster Response Network and forging partnerships with local agencies for improving disaster relief coordination and capacity building. Kingma further observed that identification of knowledge gaps can provide a framework for promoting standardized education and preparation in disaster healthcare as well as helping to stimulate a research agenda.

The American Nurses Association website for disaster preparedness and response can be used as a resource to build curriculum not only for schools of nursing but also for disaster response organizations. These organizations, state boards of nursing, professional nursing organizations, and federal and state agencies should partner to facilitate the educational resources needed to strengthen the capacity of health services during a disaster.

In addition, mentorship programs should be developed with experienced disaster nurses, such as the present participants, as supplements to the learning strategies of observation and modeling. Because disasters may occur in areas of populations of differing ethnicities and native cultures, training in culturally competent care is of prime importance. With such culturally-based training, nurse volunteers may be more able to meet the needs and honor the wishes of the disaster victims.

Nurses should also be encouraged to participate in and seek out opportunities for training in mock disaster drills and actual disaster events. For maximum education of disaster nurses, nursing leaders in education and practice need to work collaboratively and seamlessly to introduce registered nurses to the realities of disaster nursing. The

disaster nurses needed to be comprehensively educated in disaster nursing for the greatest integration into the disaster response culture.

Significance for nursing practice. Significance for nursing practice was noted by participants in utilization of their nursing skills in the disaster arena. They realized that all their prior nursing experience contributed to their adaptation and flexibility in disaster nursing. At this time, nursing experts at the International Nursing Coalition for Mass Casualty Education (2003) are in the process of developing national guidelines for use by state and local public health officials and health sector agencies and institutions in establishing and implementing standards of care that should apply in disaster situations that are both precipitated by human and natural sources. These standards would apply under conditions of the scarce resources that often accompany a disaster, although in various degrees and functionality. Nurses can assist in developing such national standards in disaster situations. This participation would allow chief nurses of volunteer organizations to implement and practice nursing based on clinical evidence.

Further, a practice registry is suggested to be compiled before disasters. Such a registry could help the chief nurses of disaster response organizations to reduce the average turnover rate. Reduction could be significant because of potential economic and productivity savings from improved retention of trained affiliated volunteers.

In addition, recognition of the variations in experience nurses bring to disaster practice would alleviate a “one size fits all” approach to volunteer recruitment and training. Rather, based on study findings of motivation and reasons for volunteering, leaders of disaster organizations should create advertisements and recruitment materials that address the different motivations for volunteerism (Riggio & Orr, 2004). For

example, chief nurses may consider developing volunteer strategies that reflect these distinctions based on the core theme of this study, “Gain by giving when asked.” The chief nurses can then concentrate on strategic professional development of registered nurse volunteers in their organizations.

Louis Pasteur famously declared that “chance favors prepared minds” (Kirch, 2008, p. 54). Registered nurses have the background knowledge for disaster response through their nursing skills, experience, and competencies. For registered nurses, the quotation can be interpreted to indicate that when nurses enter a disaster situation, they do not know exactly what they will encounter—the events are “chance” events. Even with their experiences, neither the nurses nor anyone else can predict what they will encounter. However, when nurses are more “prepared,” that is, more skilled and knowledgeable, the probability of their success in the field is likely to increase.

Nurses can play a key role in advance of a disaster by preparing themselves through their own education, outreach to communities, and advice and instruction to individuals so that potential hazards are mitigated when disaster strikes. The critical thinking skills and problem-solving skills necessary coupled with nurses’ flexibility and adaptability make them prime candidates to respond effectively to a disaster. Preparation in relevant disaster topics, skills acquired through hands-on practice, interactions and drills in preparedness procedures, and understanding of local and regional capabilities all contribute to registered nurses preparedness to handle any “chance” disaster situations that they may encounter.

During and after a crisis event, nurses should be encouraged to step out of their comfort zones and facilitate rapid response and recovery to minimize the impact of the

disaster (Baack & Alfred, 2013). Due to the sequelae of disasters, increasing nurses' competencies in managing disasters would benefit local disaster response and management teams.

Significance for nursing research. The grounded theory method used in this study helps explain theoretical gaps in theory, research, and practice. Thus, this methodology makes significant contributions to the development of a substantive body of nursing knowledge (Speziale & Carpenter, 2007). Grounded theory research provides opportunities for nurse researchers to “develop substantive theories regarding a phenomena important to the clinical aspects of nursing as well as the administrative and educative processes that are inherent to the discipline” (Speziale & Carpenter, 2007, p. 153).

To continue to reduce the impact of disasters on communities at all levels, nursing research on volunteerism in disasters is needed to inform and strengthen future responses of registered nurses (Stangeland, 2010). This study has revealed themes that influence registered nurses to become affiliated volunteers with a disaster response organization, especially those of giving and giving back, fulfilling needs, and gratification. The basic characteristics of resilience, flexibility, readiness, and following one's inclination to volunteer were emphasized by study participants. These results can be used in nursing research for additional studies, suggested below, as well as an impetus to research within the full spectrum of nursing practice to encompass the disaster context.

Present study results can stimulate research to empower registered nurses to analyze the challenging disaster environment for enhancement of capability and effective response. Building on the present study results, registered nurses can act to encourage

their communities to partner when possible with disaster response organizations, community resources, and healthcare facilities to conduct research on the complementary and interrelated roles of all stakeholders in disaster responses so that health needs during disasters are quickly and efficiently addressed. Findings of such research can be disseminated in U.S. and international journals and conferences for sharing of research outcomes and registered nurses' experiences and lessons.

Significance for nursing public health policy. For public health, emergency responders, and healthcare professionals, the duty to care resonates deeply, and the duty to plan for such incidents is an ethical imperative (Kirwan, 2011; Markenson et al., 2005). When a nurse responds to a disaster in a state different from the home state, concerns need to be addressed with the Nurse Practice Act that represents laws that regulate and define the scope of practice in the nurse's state of licensure. Laws may vary in different states. These laws not only protect patients from harm but also outline the regulations for specific levels of nurses' educational and licensure requirements (Buppert, 2011). Registered nurses volunteers who affiliate with organizations such as the American Red Cross and are deployed to service in different states must be aware of differences in the Nurse Practice Act that could affect their service.

As discussed in Chapter One, Congress passed the Public Health Security and Bioterrorism Preparedness and Response Act, Public Law 107-188, in 2002. This act provided for verification of the names and credentials of volunteer health professionals so that state and local authorities could quickly utilize volunteer health professionals during a disaster (AHA, 2005). In the Institute of Medicine's *Crisis standards of care: A systematic framework for catastrophic disaster* (Hanfling, Altevogt, Viswanathan, &

Gostin, 2012), delivery of healthcare under crisis standards is described as maximizing the care delivered to the population as a whole under austere circumstances that may limit treatment choices for both providers and patients. Disaster nurses in their training and education should become aware of this definition as well as the standards themselves.

Further refinement and development of these standards could incorporate the themes identified in this study with pilot studies for both recruitment and retention of registered nurses in disaster organizations. These nurses could also be called upon to participate in the additional development of these standards for increased delivery of care to disaster victims.

This policy effort could evolve into national and state policies establishing an organized approach for the utilization of nursing personnel who volunteer for disaster deployment to ensure the efficient, effective, and safe mobilization of volunteer registered nurses (Asaeda et al., 2000). The present study results can have significance in the need for nurses' awareness and proactivity of current disaster preparedness and policies by keeping informed, taking on mentoring and consultant roles, and serving as needed as affiliated volunteers for the AMC and other disaster organizations.

Strengths and Limitations

Like any research study, this research had strengths and limitations (Creswell, 2007). A number of strengths are identified, followed by limitations, as acknowledged earlier in Chapter One.

Strengths. The first strength of this study was that 35 participants responded, a relatively large number for qualitative studies. Qualitative methodological researchers recommend 10 to 12 participants as sufficient for reaching saturation (Creswell, 2007;

Guest, Bunce, & Johnson, 2006). Second, the participants were diverse in terms of education, race, and marital status (Table 1). This diversity may increase generalizability of the study findings to geographic locations beyond Florida, from which the participants were drawn. Third, participants were extremely forthcoming in their responses, and their data were rich and multi-leveled, as appropriate for qualitative studies (Cutcliffe, 2000; Denzin & Lincoln, 2005). Fourth, analysis of the data thus led to discovery of important themes (Chapter Four and Figure 1) that add to understanding and insights about the critical influences in registered nurses' decision making to affiliate with a disaster response organization.

Limitations. The first limitation of this study was the sample size. Although the 35 responses were enough for qualitative research analysis, more than 20,000 nurses continue to be involved in paid and volunteer capacities at all levels and in all service areas (ARC, 2006). In addition, male nurses were underrepresented, 6%, in contrast to 94% female nurses; and the preponderance of nurses were Caucasian, 91%.

Second, despite participants' diversity in some demographic characteristics, they were all recruited from a single chapter of the American Red Cross in Florida, limiting generalizability of the data among nursing populations. Third, the asynchronous interview materials were offered online; thus, registered nurses who may have had insightful contributions but were without computer or Internet access may have not responded. Fourth, the participant materials were offered only in English, and thus potential respondents fluent in other languages could not participate.

Fifth, because the interviews were online, no direct contact between researcher and participants was possible. Thus, as participants responded to the interview questions,

the researcher could not become aware of their stances, hear nuances in their voices, observe facial or body gestures, or ask probing questions. Lack of these cues may have limited data analysis. The following recommendations for future study may help diminish such limitations.

Recommendations for Future Study

Several recommendations for future study can be made, in part based on the study limitations, for both qualitative and quantitative further studies. This qualitative study could be replicated with registered nurses affiliated with the ARC and other disaster organizations in other states for a wider geographic distribution. Because the sample was 94% female, purpose samples of additional male registered nurses could be sought for more equal distribution of the genders. The study could also be replicated in Spanish and other languages for research with registered nurses whose native languages may be other than English. To reach a wider sample of participants who may not have Internet access, a regular mail option could be added. To overcome somewhat the “impersonal” nature of the Internet-based study, replication could include a question in the interview protocol asking participants about their feelings and self-observations as they responded to the questions.

The alternative method of data collection method used, that of the asynchronous web-based interview, should be compared with a study using the traditional qualitative data collection method of face-to-face interviews. Results could shed light on the strengths and limitations of the two methods.

Other qualitative studies exploring the perceptions of registered nurses who are affiliated volunteers with disaster response organizations could focus on the

organizational or systemic barriers faced by registered nurses as well as their additional perceptions of rewards and possible continued contacts with other team members. Such studies could also explore nurses' recommendations for improvement as they immerse themselves into a disaster response organization.

A rich field of research is the roles of nurses in disasters. Further qualitative studies could explore the roles nurses have played in disaster response and how these fit into the disaster phases. Nurses' personal experiences, diaries, and "stories" of their disaster experiences could be used.

Quantitative studies could investigate possible relationships between the personal and professional demographic data and registered nurses' processes or motivations to volunteer. For example, demographics could be correlated with verbal responses to see if factors such as age or area of nursing specialty account for differences in critical influences.

Competencies are another area for research. It is important that nurses' skills match the requirements of the event and the roles they are asked to fulfill (Hsu et al., 2006; Kingma, 2008). To that end, nurse competency validation packs should be developed and verified. The basic disaster nurse leader competencies need to be discussed with volunteers pre- and post-deployment. As part of the competency packs, roles of the registered nurse in a disaster response need to be identified and defined in each disaster phase and competencies developed for each nursing role (INC, 2003).

In addition, the theory of nurses' critical influences in deciding to volunteer in a disaster organization formulated in this study (Figure 1) should be further tested, with analysis of the various components. This model needs to be implemented and tested with

a wide variety of affiliated registered nurse volunteers. Glaser and Strauss (1967) outlined five specific criteria for critiquing the value of a grounded theory. Grounded theory should enable prediction and explanation of behavior, be useful in advancing theory, be practical in application, provide a perspective on behavior, and be readily understandable and useful to laypersons. Further research with the study results and the theory generated should test this theory according to these criteria.

Conclusions

The findings of this study are pertinent to disasters in the United States. In 2011, the nation experienced 98 natural disaster events, which left \$27 billion in economic losses, more than double the 10-year average of \$11.8 billion (Llanos, 2011). FEMA declared 84 disasters in the United States from January through September 2011. The disasters affected individuals in every profession, every socioeconomic status, and every culture (Llanos, 2011). Nurses who normally treat patients in a sterile protected environment found themselves caring for people in shelters or at the disaster sites. Many of the nurses were not adequately prepared.

Nurses have always been a cornerstone of the American Red Cross and other disaster response organizations (Wall & Keeling, 2011). The nation needs assurance that enough nurses will be available to provide culturally competent and holistic care to all those in need. The findings of this study may contribute significantly to the understudied area of disaster research with the motivations and characteristics of registered nurses who decide to become affiliated volunteers of disaster response organizations.

The overall core theme emerging from the data was that of “Gain by giving when asked.” This theme reflected participants’ experiences throughout the process. Registered

nurses have responded to disasters for generations, but characteristics and models of disaster nursing and their subsequent evaluations through research have been little studied.

No prior studies were found in the literature for this research, although several prior qualitative studies addressed critical influences used by volunteers in general volunteering. Some of the themes and subthemes were similar to those found in the present study. However, no previous study explored the critical influences of registered nurses' decision making in becoming affiliated volunteers with a disaster organization.

Disasters of the future will likely be broad in scope and intense in terms of mass casualties. Additional research is needed to determine the usefulness and applicability of to recruitment and retention of disaster registered nurses of the study findings—the major themes of need, gratification, asking, preparation and resilience, and “doing it” (Table 3) and the theory generated (Figure 1). Clary et al. (1998) observed that volunteers are more likely to volunteer when they are exposed to persuasive messages that are tailored to their most salient motive for volunteering. If registered nurses are knowledgeable about disaster nursing and the motivations of other nurses, they are in a prime position to save lives by combining their professional nursing experiences with those of emergency preparedness systems.

The healthcare system and communities cannot survive without registered nurses actively and safely involved in disaster preparedness and response (Llanos, 2011). Disaster nursing offers an ever-expanding opportunity for involvement, action, giving, and gaining the rewards of experience and gratification. It is hoped that this study will add to the literature on disaster nursing, lead to more deserved research on registered

nurses' disaster volunteering, and illuminate the important, essential, and moving contributions of registered nurses who decide to affiliate with disaster response organizations.

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*Appendix A***IRB MATERIALS**

OFFICE OF THE PROVOST
INSTITUTIONAL REVIEW BOARD

11300 NE Second Avenue
Miami Shores, FL 33161-6695
phone 305-899-3020
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Research with Human Subjects
Protocol Review

Date: July 22, 2013

Protocol Number: 130802

Title: Grounded Theory Study of Critical Factors Utilized by Registered Nurses when deciding to be an Affiliated Volunteer with a Disaster Response Organization

Approval Date: 7/18/13

Name: Ms. Linda Connelly
Address: 65 Tallwood Rd.
Jacksonville Beach, FL32250

Sponsor: Dr. Claudette Spalding
Barry University School of Nursing

Dear Ms. Connelly:

On behalf of the Barry University Institutional Review Board (IRB), I have verified that the specific changes requested by the IRB have been made. Therefore, I have granted final approval for this study as exempt from further review.

As principal investigator of this protocol, it is your responsibility to make sure that this study is conducted as approved by the IRB. Any modifications to the protocol or consent form, initiated by you or by the sponsor, will require prior approval, which you may request by completing a protocol modification form.

It is a condition of this approval that you report promptly to the IRB any serious, unanticipated adverse events experienced by participants in the course of this research, whether or not they are directly related to the study protocol. These adverse events include, but may not be limited to, any experience that is fatal or immediately life-threatening, is permanently disabling, requires (or prolongs) inpatient hospitalization, or is a congenital anomaly cancer or overdose.

The approval granted expires on June 30, 2014. Should you wish to maintain this protocol in an active status beyond that date, you will need to provide the IRB with and

IRB Application for Continuing Review (Progress Report) summarizing study results to date.

If you have questions about these procedures, or need any additional assistance from the IRB, please call the IRB point of contact, Mrs. Barbara Cook at (305)899-3020 or send an e-mail to LBacheller@mail.barry.edu . Finally, please review your professional liability insurance to make sure your coverage includes the activities in this study.

Sincerely,



Linda Bacheller, Psy.D., J.D.
Chair, Institutional Review Board
Barry University
Box Psychology
11300 NE 2nd Avenue
Miami Shores, FL 33161

Cc: Dr. Claudette Spalding

Note: Note: The investigator will be solely responsible and strictly accountable for any deviation from or failure to follow the research protocol as approved and will hold Barry University harmless from all claims against it arising from said deviation or failure.

Approved by Barry University IRB :

Date : JUL 22 2013

Signature :



Appendix C

Barry University

Recruitment Email/Handout

Seeking Twenty Registered Nurses

To discuss your experiences as an affiliated volunteer with a disaster response organization such as the American Red Cross.

The study is entitled "*GROUNDING THEORY STUDY OF THE CRITICAL INFLUENCES UTILIZED BY REGISTERED NURSES WHEN DECIDING TO BE AN AFFILIATED VOLUNTEER WITH A DISASTER RESPONSE ORGANIZATION*".

As part of the study, you will be asked to consent to:

- Complete a demographic data sheet via SurveyMonkey
- Complete an on-line interview via SurveyMonkey lasting 60 minutes and a follow up on-line interview lasting about 30 minutes; however, do not worry, you will have all the time needed to respond to all the questions.
- The total time commitment for this study is anticipated to be no more than 90 minutes. If interested in participating in his study, please click on the web link below which will take you to the cover letter with the web link to the questions. The survey will be available until XX-XX-XXXX. Thank you in advance for your participation.
- A second interview will be offered via web whether you answered the first interview or not. This second interview will take no longer than 30 minutes and would be to further develop themes as they emerge from the answers that were originally provided.

To participate in this research study:

Link to the on-line interview by ctrl+clicking on the following link:
<http://www.SurveyMonkey.com/>

Should you have any questions or concerns regarding the study or your participation in the study, you may contact the researcher, Linda K. Connelly, 904-307-2755/or at linda.connelly@mymail.barry.edu or my dissertation chair Dr. Spalding (305) 899-3840 or at cspalding@mail.barry.edu or the Institutional Review Board point of contact, Barbara Cook, at (305) 899-3020.

Thank you for your consideration of this research study!



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OFFICE OF THE PROVOST
INSTITUTIONAL REVIEW BOARD

Research with Human Subjects
Protocol Review

To: Ms. Linda Connelly
65 Tallwood Rd.
Jacksonville Beach, FL 32250

From: Linda Bacheller Linda Bacheller, Psy.D., J.D.
Chair, Institutional Review Board

Date: August 1, 2013

Protocol Number: 130802
Protocol Title: Grounded Theory Study of Critical Factors Utilized by
Registered Nurses when Deciding to be an Affiliated
Volunteer with a Disaster Response Organization

Dear Ms.Connelly:

Thank you for sending the request for modifications indicating that you would like to make changes to your protocol regarding:

1. Change in procedure with regard to utilizing the Qualtrics platform instead of Survey Monkey.

The above change has been accepted. You may proceed with your collection of data. The approval granted expires on June 30, 2014

Sincerely,

Linda Bacheller, Psy.D., J.D.
Chair, Institutional Review Board
Barry University
Box Psychology
11300 NE 2nd Avenue
Miami Shores, FL 33161

Cc: Dr. Claudette Spalding

If you have any questions, please contact Barbara Cook at: 305-899-3020

Note: The investigator will be solely responsible and strictly accountable for any deviation from or failure to follow the research protocol as approved and will hold Barry University harmless from all claims against it arising from said deviation or failure.

*Appendix B***LETTER OF REQUEST FOR ACCESS**

Linda K. Connelly
Barry University
11300 NE 2nd Avenue
Miami Shores, Fl. 33161-6695
linda.connelly@mymail.barry.edu

June 4, 2013

Kassy Decker, RN
American Red Cross
Northeast Florida Chapter
751 Riverside Ave
Jacksonville, FL 32204

Dear Kassy Decker,

I am a principal investigator conducting a research study for partial fulfillment of my PhD requirements. I am requesting your permission to distribute a flyer by e-mail and at the monthly meeting to the registered nurse affiliated volunteers with the American Red Cross Northeast Chapter requesting their participation in the study. The study is titled: Grounded Theory Study of Critical Factors Utilized by Registered Nurses When Deciding to Be an Affiliated Volunteer with a Disaster Response Organization. The purpose of this qualitative grounded theory study is to explore and gain understanding about the critical influences that registered nurses use to decide to become an affiliated volunteer with a disaster response organization.

With your approval, I am requesting that the attached flyer be sent to all affiliated volunteer registered nurse volunteers in your chapter. The flyer will provide a web link to a web interview on Qualtrics. Participation in this study is completely voluntary. All of the interviews will be conducted with an asynchronous web-based interview and should last no more than one hour. The participants may choose to withdraw from the study at any point in time.

If you have any questions or concerns, please contact me, Linda K. Connelly (904) 307-2755 or my supervisor, Dr. Claudette Spalding at (305)899-3940, or the Barry University Institutional Review Board point of contact, Barbara Cook, at (305)899-3020. Please let me at your earliest convenience if I may have your permission and assistance with this nursing research study.

Thank you for your consideration,
Linda K. Connelly, ARNP, MSH, MSN
Principal Investigator

*Appendix C***LETTER OF GRANT OF ACCESS TO ARC REGISTERED NURSES**

June 22, 2013

Principal Investigator

LETTER OF GRANT OF ACCESS TO ARC REGISTERED NURSES

Kassy Decker, RN
 American Red Cross
 Northeast Florida Chapter
 751 Riverside Ave
 Jacksonville, FL 32204

Linda K. Connelly, ARNP, MSH, MSN
 Barry University
 11300 NE 2nd Avenue
 Miami Shores, Fl. 33161-66095

Dear Mrs. Connelly,

On behalf of the American Red Cross Northeast Florida Chapter, approval is granted for access to registered nurses for the qualitative study entitled, Grounded Theory Study of Critical Factors Utilized by Registered Nurses When Deciding to Be an Affiliated Volunteer with a Disaster Response Organization. The principal investigator is: Linda K. Connelly.

Sincerely,



Kassy Decker, RN
 American Red Cross
 Northeast Florida Chapter

Appendix D

RECRUITMENT E-MAIL/HANDOUT



Seeking Twenty Registered Nurses

To discuss your experiences as an affiliated volunteer with a disaster response organization such as the American Red Cross.

The study is entitled “*GROUNDED THEORY STUDY OF THE CRITICAL INFLUENCES UTILIZED BY REGISTERED NURSES WHEN DECIDING TO BE AN AFFILIATED VOLUNTEER WITH A DISASTER RESPONSE ORGANIZATION.*”

As part of the study, you will be asked to consent to:

- Complete a demographic data sheet via Qualtrics.
- Complete an on-line interview via Qualtrics lasting 60 minutes and a follow up on-line interview lasting about 30 minutes; however, do not worry, you will have all the time needed to respond to all the questions.
- The total time commitment for this study is anticipated to be no more than 90 minutes. If interested in participating in his study, please click on the web link below which will take you to the cover letter with the web link to the questions. The survey will be available until September 10, 2013. Thank you in advance for your participation.
- A second interview will be offered via web whether you answered the first interview or not. This second interview will take no longer than 30 minutes and would be to further develop themes as they emerge from the answers that were originally provided.

To participate in this research study:

Link to the on-line interview by ctrl+clicking on the following link:

http://unf.co1.qualtrics.com/SE/?SID=SV_a3nT74DqFkfA41T

Should you have any questions or concerns regarding the study or your participation in the study, you may contact the researcher, Linda K. Connelly, 904-307-2755/or at linda.connelly@mymail.barry.edu or my dissertation chair Dr. C. Spalding (305) 899-3840 or at cspalding@mail.barry.edu or the Institutional Review Board point of contact, Barbara Cook, at (305) 899-3020.

Thank you for your consideration of this research study!

*Appendix E***COVER/INVITATION LETTER****REGISTERED NURSES WHO HAVE VOLUNTEERED WITH A DISASTER
RESPONSE AGENCY DURING A DISASTER**

Your assistance in a research project is requested. The study is being conducted by Linda K. Connelly, ARNP, MSN, MS, CNOR a doctoral student in the Division of Nursing at Barry University. The title of this research study is " *GROUNDING THEORY STUDY OF THE CRITICAL INFLUENCES UTILIZED BY REGISTERED NURSES WHEN DECIDING TO BE AN AFFILIATED VOLUNTEER WITH A DISASTER RESPONSE ORGANIZATION*" for completion of a dissertation.

The purpose of this qualitative grounded theory study is to explore and gain understanding about the critical influences and processes that registered nurses use to decide to volunteer and affiliate with a disaster response organization before the disaster strikes.

Your opinions and experiences matter! I am seeking twenty registered nurses who have volunteered during a disaster with a disaster response agency such as the American Red Cross or another disaster response organization to share their perspectives and opinions in regard to motivation and process used to decide to volunteer. The data collection will be conducted via a web-based interview protocol. Therefore, all participants will remain anonymous by separation of the user names and domain names when storing or publishing the data. A second interview will be offered via web to clarify the themes as they emerge from your original interview responses.

If you decide to participate in this research study, you will be asked to do the following:

- Link to the on-line data collection interview protocol by ctrl+clicking on the following link: http://unf.co1.qualtrics.com/SE/?SID=SV_a3nT74DqFkfA41T
- After carefully reading this Cover Letter, click on the link above to the interview questions. Your consent to be a research participant is strictly voluntary, and should you decline to participate or should you choose to drop out at any time during the study, you are free to do so with no adverse consequences. Completion of the survey implies consent.

- Once your participation has been confirmed by clicking on the link to the interview questions, you will be presented with several demographic questions followed by several open-ended questions.
- The on-line process time commitment for this study is anticipated to be no more than 60 minutes, although you will have all the time you need to complete the questions.
- Information provided by participants will be kept anonymous; that is, no names, IP addresses, or other identifiers will be collected on the electronic instrument used. Qualtrics will not use the information collected from these surveys in any way, as per their privacy statement. During data collection, data will be stored on a secure server by Qualtrics. During data collection, data will be stored on a secure server by Qualtrics. At the completion of the survey, data will be downloaded from the server to the researcher's password protected laptop and kept for a period of five years. At the end of this time, all data will be destroyed. Any published results of the interviews will be in aggregate form.
- The online interview is available until September 10, 2013.
- A second interview will be offered via web to the same group of volunteer registered nurses whether you answered the first interview or not. This second interview will take no longer than 30 minutes and would be to further develop themes as they emerge from the answers that were originally provided.
- Additionally, a summary of the data analysis procedure and of the final results of inquiry will be offered via web.
- If you feel any discomfort during or after the interview, feel free to contact the free counseling resources listed on the Qualtrics website and below.

Should you have any questions or concerns regarding the study or your participation in the study, you may contact the researcher, Linda K. Connelly, 904-307-2755/or at linda.connelly@mymail.barry.edu or my dissertation chair Dr. C. Spalding (305) 899-3840 or at cspalding@mail.barry.edu or the Institutional Review Board point of contact, Barbara Cook, at (305) 899-3020.

Thank you for your consideration of this research study!

Free Counseling Resources

- Counseling services at the respective college or university in your area
- American Red Cross Mental Health Resource at your local chapter
- Community Rehabilitation Center, Inc. (904) 358-1211

- River Point Behavioral Health. (904) 724-9202
- Mental Health and Educational Services. (904) 399-0324
- Your personal Employee Assistance Program
- Duval County Health Department. (904) 253-1250

*Appendix F***FOLLOW-UP RECRUITMENT E-MAIL/HANDOUT****REGISTERED NURSES WHO HAVE VOLUNTEERED WITH A DISASTER RESPONSE AGENCY DURING A DISASTER IN THE STATE OF FLORIDA!**

A few weeks ago you received an e-mail or handout for assistance in a research project. The research is being conducted by Linda K. Connelly, ARNP, MSN, MS, CNOR a doctoral student in the Division of Nursing at Barry University, titled *GROUNDED THEORY STUDY OF THE CRITICAL INFLUENCES UTILIZED BY REGISTERED NURSES WHEN DECIDING TO BE AN AFFILIATED VOLUNTEER WITH A DISASTER RESPONSE ORGANIZATION.*"

I am seeking registered nurses who have volunteered during a disaster with a disaster response agency such as the American Red Cross or other disaster response organizations to share their perspectives and opinions in regards to motivation and process used to decide to volunteer. The data collection will be conducted via a web based interview therefore all participants will remain anonymous by separating the user names and domain names when storing or publishing the data. A second interview will be offered via the web to clarify the themes as they emerge from your original interview responses.

If you decide to participate in this research study, you will be asked to do the following:

- Link to the on-line data collection interview by ctrl+clicking on the following link:
http://unf.co1.qualtrics.com/SE/?SID=SV_a3nT74DqFkfA41T
- After carefully reading this Cover Letter, click on the link above to the interview. Your consent to be a research participant is strictly voluntary and should you decline to participate or should you choose to drop out at any time during the study, you are free to do so with no adverse consequences. This is an exempted study. Completion of the survey implies consent.
- Once your participation has been confirmed by clicking on the link to the interview, you will be presented with a demographic questions followed by several open-ended questions.
- The on-line process time commitment for this study is anticipated to be no more than 60 minutes, and a second interview taking about 30 minutes will be offered via the web to clarify themes as they emerge from your original interview questions.

- Information provided by participants will be kept anonymous; that is, no names, IP addresses, or other identifiers will be collected on the electronic instrument used. Qualtrics will not use the information collected from these surveys in any way, as per their privacy statement. During data collection, data will be stored on a secure server by Qualtrics. At the completion of the survey, data will be downloaded from the server to the researcher's password protected laptop and kept for a period of five years. At the end of this time, all data will be destroyed. Any published results of the interviews will be in aggregate form.

The questions are available until September 30, 2013.

- A second interview will be offered via web to the same group of volunteer registered nurses. This second interview will take no longer than 30 minutes and would be to further develop themes as they emerge from the answers you originally provided.
- Additionally a summary of the data analysis procedure and of the final results of inquiry will be offered via web.

Should you have any questions or concerns regarding the study or your participation in the study, you may contact me, Linda K. Connelly, 904-307-2755 or linda.connelly@mymail.barry.edu or my dissertation chair, Dr. C. Spalding at (305) 899-3840 or e-mail or the Institutional Review Board point of contact, Barbara Cook, at (305) 899-3020.

Thank you for your consideration of this research study!

*Appendix G***INSTRUMENTS****Demographic Data Sheet**

Please complete this demographic survey in order to obtain some general information about you. Your responses are confidential.

Directions: Please fill in or circle the appropriate response.

1. Your age (in years): _____
2. Gender: 1. Female 2. Male
3. Which best describes your race/ethnicity?
 1. African American
 2. Caucasian
 3. Hispanic
 4. Asian
 5. Other: _____
4. Marital Status:
 1. Married
 2. Cohabiting
 2. Not Married
 3. Separated/Divorced/Widowed
5. Number of dependents:

1. Infant–toddler	How many? _____
2. Pre-school–Kindergarten	How many? _____
3. 6-10 years	How many? _____
4. 11-13 years	How many? _____
5. 14-18 years	How many? _____
6. 19-22 years	How many? _____
7. 23-60 years	How many? _____
8. 61-older	How many? _____
9. None	_____
5. Highest Nursing Degree:
 1. AA
 2. Diploma
 3. Bachelors Degree
 4. Graduate degree (Master’s Degree)
 5. Doctoral Degree (PhD or DNP)

6. Highest Non-nursing degree:
1. None
 2. Associate's Degree
 3. Baccalaureate Degree
 4. Graduate Degree
 5. Doctoral Degree
7. Current work status:
1. Part-time (minimum of 24 hours a week)
 2. Full-time (36/40 hours/week)
 3. PRN
 4. Retired
 5. Unemployed
 6. Other: _____
8. Years of nursing experience:
1. 1-5 years
 2. 6-10 years
 3. 11-15 years
 4. 16-20 years
 5. 21-25 years
 6. 26-30 years
 7. 31-35 years
 8. 36-40 years
 9. > 40 years
9. Primary clinical area (mark all that apply)
- | | |
|---------------------|-----------------------------|
| 1. Med/Surg | 5. Ambulatory |
| 2. Critical Care | 6. Administrative/Education |
| 3. Mother/Baby/Peds | 7. Other: _____ |
| 4. Emergency | |
10. To what extent do you consider yourself a nurse?
1. A great deal
 2. Somewhat
 3. Very little
 4. Not at all
11. Please indicate below the disaster response organization(s) you have volunteered with during your disaster volunteer experience (mark all that apply):
- ____ American Red Cross _____ Time in years with this organization
- ____ Other: (name) _____ Time in years with this organization



Interview Guiding Questions

In answering the questions I encourage you to use acronyms (a word formed from the initial letters of a name, e.g., BFF [best friend forever]) and emoticons (facial expression pictorially represented by punctuation and letters), there are no wrong or incorrect answers, the more detail the better, and do not worry about misspellings or grammatical errors. The questions will be available until September 10, 2013.

1. Describe what and who influenced you in making the decision to become an affiliated volunteer with the above agency or agencies. Include your thoughts, feelings and goals when you decided to become a volunteer with each agency.
2. What advice would you share with a registered nurse considering becoming an affiliated volunteer with a disaster response organization?
3. Describe any previous volunteer experience before becoming an affiliated volunteer with the disaster response organization. Start with high school, please.
4. What additional information would you like to share about your decision to be a volunteer with the disaster response organization?
5. If you kept a diary or blog during your disaster deployment, would you be willing to share the document? If so please indicate how I can access the document.

*Appendix H***MEMBER CHECKING INVITATION**

Disaster Nurses:

Thank you for taking the time to complete the Disaster Nursing Survey. I have provided a link to the grounded theory that was created of the critical influences used by nurses in deciding to become an affiliated volunteer with a disaster response organization.

I am asking for you to review the summary of the data analysis as depicted in the model. Then, after reviewing please offer comments on whether or not you feel that the data were interpreted in a manner congruent with your own experience.

Your participation is voluntary and confidential. Although there are no anticipated risks involved in reviewing the data, you do not have to comment and can simply log out. In that case, no data will be submitted or saved. Participation and completion of the review will acknowledge your consent.

Please open the attached cover letter to access the link to the survey or click on the web link: <http://unf.co1.qualtrics.com/>

Please feel free to contact me at linda.connelly@mymail.barry.edu if you have any difficulties accessing the data analysis.

Thank you!

VITA

Born – Miami, FL

1973 BS, University of West
Florida
Pensacola, FL

1973-1981 Staff Nurse, Operating
Room Nurse
Baptist Hospital and Medical
Center
Pensacola, FL

1975 MSN, University of North
Florida
Jacksonville, FL

1978 MSH, University of North
Florida
Jacksonville, FL

1982-1984 Clinic Administrator
Dr. Roger Bartles
Monterey, CA

1985-1987 Clinic Administrator
St. Vincent's Ambulatory
Care
Jacksonville, FL

1987 BSN, University of North
Florida
Jacksonville, FL

1987-1990 Staff Educator
Newport Hospital
Newport, RI

1991-1992 CV Director
Georgetown Medical Center
Washington, DC

1994 MSN, University of North
Florida
Jacksonville, FL

1994-1995	Educator, Director of Nursing University Medical Center Jacksonville, FL
1998-2000	Program Chair Florida Community College Jacksonville, FL
2001-2006	Staff Nurse Baptist Medical Center Jacksonville, FL
2008-2009, 2012	U.S. Army, Chief Nursing Officer, Deputy Corps Chief 345th Task Force, Deputy Individual Mobilized Augmentee, Office of The Surgeon General
2002 - Present	Administrator/Lecturer University of North Florida Jacksonville, FL

PUBLICATIONS AND PRESENTATIONS

- Comeaux, J. M., & Connelly, L. (2013, September). *Teaching baccalaureate students the principles of vascular access: Promoting confidence and success*. Presentation, Association for Vascular Access Annual Scientific Meeting, Nashville, TN.
- Connelly, L. (2013, September). *Wellness: A way of life*. Georgetown US AID Scholarship for Education and Economic Development Program. Presentation. Florida State College at Jacksonville, FL.
- Connelly, L. (2013, June). *Fixing up foxholes*. Presentation. Florida Council of periOperative Registered Nurses Summer Meeting, Indian Beach, FL.
- Connelly, L. (2013, May). *Culture in healthcare*. Presentation. Association of Operating Room Nurses Summer Seminar, Naples, FL.
- Connelly, L. (2013, June). *Culture of veteran students*. Presentation. Barry University School of Nursing, Miami Shores, FL.
- Connelly, L. (2013, February). *Caring for veterans during time of disaster*. Presentation. American Red Cross (ARC) Northeast Chapter Nurses Forum, Jacksonville, FL.

Connelly, L. (2012, October). *Caring for America's sons and daughters*. Presentation. Florida Council of Operating Room Nurses Fall Meeting. Jacksonville, FL.

AWARDS

Colonel. United States Army Reserves. Army Nurse Corps. Retired October 2012.

Order of Military Medical Merit Medallion. U.S. Army Medical Department, U.S. Army Regiment. Fort Sam Houston, TX. 2011.

Blackboard Greenhouse Exemplary On-Line Pedagogy Course Award. Blackboard, Inc. Washington, DC. 2007.

American Red Cross Influential Nurse Leader Award. Southern Region. 2006.

Great 100 Nurses of Northeast Florida Award. Great 100 Nurses of Northeast Florida, Inc. Jacksonville, FL. 2001.