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ABSTRACT

The purpose of this study was to understand the essence of military nurses' lived experience of responding to disasters. Specific aims were to explore experiences of military nurses who had been deployed into disaster environments and to examine the impact the disaster responses had on their lives. A phenomenological approach grounded in the existential phenomenological works of Merleau-Ponty guided the study. Using purposive, snowballing technique and e-mailed information flyers, single face-to-face interviews lasting 27 to 70 minutes were conducted and digitally recorded, and the recordings were professionally transcribed. Twenty-three nurses from the United States Air Force, Army, Navy, and U.S. Public Health Service participated in the study. Line-by-line analysis was completed by employing hermeneutics to identify key words, phrases, and themes that described the essence of the experience. The process sought to identify specific meaning in parts of each transcript related to the complete document and across all transcripts illuminating their experience. Five polar themes and one additional theme emerged from the data: "Nature of War" versus "Nature of Disaster," "Known" versus "Unknown," "Structured" versus "Chaos," "Prepared" versus "Making Do," "Strength" versus "Emotionality," and "Existential Growth." Outcomes of the study indicated that disaster training should become part of core nursing curriculum, military training should encompass disaster preparedness, military nurses need instruction in dealing with media during crises, and psychological support teams should be included in disaster deployments. Nurses who have deployed to disasters need time to reintegrate into their jobs and communities. This study draws attention to the need for better pre-deployment disaster training and preparedness. It also identifies the need for psychological support during and after disaster responses to help the

military better care for its health care providers.

INTRODUCTION

Every year, the world experiences numerous disaster events, both human made and naturally occurring. Kreps (1991, p. 32) defines *disaster* as "an event concentrated in time and space, in which a society or one of its subdivisions undergoes physical harm and social disruption." *Disaster preparedness* refers to "actions that involve a combination of planning, resources, training, exercising, and organizing to build, sustain, and improve operational capabilities. Preparedness is the process of identifying the personnel, training, and equipment needed for a wide range of potential incidents, and developing jurisdiction-specific plans for delivering capabilities when needed for an incident" (Federal Emergency Management Agency [FEMA], 2003). *Disaster response* comprises "activities that address the short-term, direct effect of an incident. Response efforts include the immediate actions to save lives, protect property, and meet basic human needs" (*National Response Plan,* 2004, p. 72). For this study, *disaster* described any non-combat mission, humanitarian relief, or response to a natural or human-made event outside of warfare to which military nurses were deployed.

These disasters are of concern to health care providers for many reasons, not the least of which is their increasing incidence. The International Disaster Database, located at the Centre for Research on the Epidemiology of Disasters (CRED) at the Université Catholique de Louvain in Belgium, maintains a comprehensive register on more than 16,000 mass-casualty disasters occurring worldwide since 1900. Their data give compelling evidence that such events are dramatically on the rise: the number of mass-casualty incidents during the 5-year period from

2000 to 2005 is equal to the total number of disasters occurring during the preceding decade. The 2000–2005 numbers are also double the incidence between 1970 and 1979 and 10 times the disaster tally in the 1950s. Mounting event frequency and magnitude, coupled with increasing world population, results in devastating human impacts.

CRED's 2009 *Annual Disaster Statistical Review* (Rodriquez, Vos, Below & Guha-Sapir) examined the outcome of catastrophic events and their sequelae in 2008, including natural disasters and their effects; complex emergencies associated with civil conflict; and human survival challenges, including malnutrition and food insecurity, infectious diseases, and mental health. CRED's figures show that more than 253,000 people were killed because of these events and another 214 million were affected. Losses were global, affecting not only developing nations with few resources but also industrialized world leaders.

The United States is not immune to these devastating events. From January 3, 2000, through March 3, 2007, the president declared 377 natural disasters, including 63 in 2007 and 75 in 2008 (FEMA, 2009). Each of these incidents demanded some level of government response to lessen the impact on citizens and move them toward recovery. In some cases, this response was largely bureaucratic, involving opening access to governmental loans or resources for financing reconstruction, but at other times, the events called for the deployment of military force to restore order and secure devastated neighborhoods or to provide other forms of aid, including health care. In instances in which health services have been required, rarely has the military been the first responder. Instead, it has most often worked in concert with community-based, civilian volunteers who participate in disaster response as part of non-governmental agencies. Thus, for

health professionals both civilian and military, disaster events are of great concern, demanding specialized knowledge and skill to respond effectively, both at home and abroad.

Military Response to Disasters

There are records of U.S. military nurses involved in disaster response as early as 1923, when 13 nurses of the Army Nurse Corps set sail on the *Somme* to provide aid to earthquake disaster victims in Japan (Sarnecky, 1999; Stimpson, 1923). However, awareness of the crucial role of nursing in America's preparedness for nuclear disaster first appeared during the Cold War, when an Army Nurse Corp (ANC) major and nursing pioneer, Harriet H. Werley, advocated for nursing disaster preparedness education and wrote about the need for such specialized training in professional literature (Leifer & Glass, 2008). Though fears of attack by the Soviet Union never became reality, Werley's vision for nurses as responders to non-combat mass-casualty events has been an ongoing occurrence.

In May 1960, nurses from Fort Belvoir and Fort Bragg participated in relief efforts in Chile following an earthquake and tidal wave. In September 1962, 21 Army nurses left Landstule, Germany, to provide support in Iran after a tragic earthquake (Sarnecky, 1999). In 1963, as part of a humanitarian mission to Skopje, Yugoslavia, 30 U.S. Army nurses established a 120-bed field hospital two days after a massive earthquake (Feller & Cox, 2001). Following the crash of two 747 aircraft at Tenerife, Canary Island, the U.S. Air Force sent six flight nurses with 12 other health care providers from Rhein-Main Air Base, Germany, to provide care for the 57 survivors and take them to the Brooke Army Medical Center Burn Center in San Antonio, Texas (E. Scannell-Desch, personal communication, March 19, 2010).

These examples are only a few of the documented instances of military nurses responding to disasters. From the 1992 famine crises in Somalia through the 2004 Banda Aceh tsunami in Indonesia, the 2005 Hurricane Katrina in the southern United States, the earthquake in Pakistan, and the 2010 catastrophic earthquake in Haiti, we know thousands of U.S. military health care personnel have responded to domestic and international disasters (Auerbach et al., 2010; Elleman, 2007; Pakistan Earthquake, 2006; Ryan, 2000). However, specific data documenting the things they endured and the number of nurses who were among these personnel remain sparse.

Research examining military nurses' disaster preparedness and response is lacking. Much of the existing work focuses on combat because wartime deployments are the priority in mission readiness. Yet disaster response is not combat. We know military nurses have provided aid during crisis, but we do not know what they experienced or what was needed to strengthen disaster deployment readiness. Several first-person accounts and research studies from civilian colleagues' disaster experiences have captured lessons learned that are timely and lend support to this topic, but little is known about military nurses in disaster response and how to provide for their well-being.

Response to Natural Disasters

One example of military nurses' involvement in response to a natural event occurred during Operation Restore Hope, the U.S. deployment of forces to provide relief during the Somalian famine crisis of 1992. West and Clark (1995) seized the opportunity to conduct 90 historical interviews with three groups of military nurses who were part of the mission. The

nurses, speaking of the stark contrast between the United States and Somalia, discussed ways in which their deployment to an austere environment experiencing famine and starvation presented greater difficulties than previous wartime deployments during Desert Shield/Desert Storm. The difficulties encountered during their relief efforts included little to no government and the absence of established health care or education, a system for waste disposal, clean drinking water, or organized housing. They suffered through extreme heat with frequent dust storms and little rain. Because of the chaos and danger outside the barriers, the nurses were not allowed to leave the military compound. Several important lessons were learned from the deployment. First, despite the lack of supplies and physical difficulties and discomforts, the nurses were able to provide quality patient care. Second, the old ways of doing things did not always work. Nurses learned to be flexible, adapting to the situation. Third, Army nurses are more than nurses; they are soldiers who must be competent in soldierly field skills. Last, rendering care to people of different cultures is challenging and may present some difficult situations.

After the West and Clark study, two after-action reports (AAR) examined the efficacy of the Army Medical Department (AMEDD) in disaster relief operations. The first, following the response of the 28th Combat Support Hospital to Hurricane Andrew in 1992, identified the lack of training and absence of detailed protocols regarding disaster assistance as major concerns (Carroll, 1996). Later, in an AAR following Hurricane Mitch, Oliver (1999) reported three major conclusions: military doctrine was inadequate to cover both combat and humanitarian crisis situations; effective humanitarian assistance is dependent on appropriate education of those deployed to serve the mission; and delayed and often contradictory communication impeded attainment of desired outcomes.

Margalit et al. (2002) explored Israeli military nurses' and physicians' experiences providing disaster relief after the 7.4-magnitude earthquake that shook the region of Marmara, Turkey, in 1999, resulting in more than 2,680 deaths and 5,300 injuries. The utilities, including water, were crippled by the event; structural damage rendered medical facilities inoperable; and health care providers were among the casualties. A field hospital established and operated by the Israel Defense Forces on days 4–14 after the earthquake treated 1,205 patients. The authors reported that management of patient distribution, flexibility in rotations, foreign language ability, and attention to hygiene conditions were important for nurses in this field environment. Nurses reported that in the disaster environment they worked longer and more demanding shifts than they would in a regular hospital. Findings also revealed a strong need for cultural sensitivity training. Participants noted that the availability of translators should not mitigate concerns about language and cultural barriers. Indeed, they mentioned cultural awareness as a requisite skill for nurses working in the field.

In 2007, Almonte conducted a grounded theory study of the experiences of 11 U.S. Navy nurses who were part of an historic collaboration, Operation Unified Assistance, aboard the U.S. Naval Ship *Mercy* following the 2004 tsunami that devastated countries around the Indian Ocean. Members of the U.S. Public Health Service and a civilian team of nurses attached to a non-governmental organization joined Almonte's participants in their mission. In data obtained through purposive sampling, Naval nurses cited flexibility, adaptability, ability to mediate conflict, and readiness to travel and to care for people from diverse cultures as pivotal to the success of their mission. They named lack of preparedness to care for pediatric cases as a particularly difficult challenge that hindered effectiveness.

Ethical concerns and moral distress resulted from confronting harsh realities. For example, nurses had to provide care for cases in which they lacked expertise; discharge patients "too soon" or to home conditions where they would receive less-than-ideal care or risk inadequate long-term follow-up; intervene surgically when they lacked ideal treatment options or could not guarantee long-term availability of medications; and make decisions about who to treat and who to turn away, although all who sought care needed it. Making such decisions resulted, at times, in overwhelming feelings of frustration and sadness, and nurses turned to each other for support. Some elements of the experience were neither clearly positive nor negative. The USNS *Mercy* nurses' role as goodwill ambassadors for the United States met with mixed results; some participants felt pride in their ability to represent the country well in the eyes of the citizens they served, whereas others felt discomfort, perceiving themselves as "political pawn[s]" (p. 96). A particular strength of the Almonte study is its proximity to the disaster event; participants' memories and feelings were less likely to be influenced by the impact of intervening deployments to disaster zones. The key theme identified—readiness—highlights the importance of providing adequate preparation for military nurses deploying to disaster environments and reinforces the notion that disaster calls for unique skills and training unlike those required for combat (Almonte, 2007; 2009).

Employing a descriptive qualitative methodology, Agazio (2010) interviewed 75 nurses about the nursing practice challenges experienced in wartime and military operations other than war (MOOTW). The MOOTW included deployment for peacekeeping and peace enforcing and in response to natural disasters. Of the 75 nurses interviewed, 25% had been deployed to both war and MOOTW and 21% had responded numerous times to MOOTW missions.

The nurses reported several commonalities between the two types of deployments, including maintaining clinical competence, applying basic nursing assessment, and working autonomously. In contrast, one nurse related that the number of casualties and patient care demands during MOOTWs were more irregular than those during wartime deployments and that nurses had to be more creative to offset the lack of supplies and equipment.

The nurses experienced several challenges during their humanitarian missions, including "recognizing and caring for patients with diseases not commonly found in the U.S." (p. 169), dealing with locals and language barriers, treating pediatric patients without adequate supplies, deciding how many supplies to use in dealing and caring for the local populace, and having increased responsibility in triage and beginning treatment. Overall, once they arrived, the nurses needed more information, and many what-ifs surfaced, reflecting their "fear of the unknown" (p. 172). One nurse said, "I didn't know what to expect … no one had talked to me about it … I had no idea what I was getting into … I'm not sure my Command knew exactly what we were getting into" (p. 173, Agazio, 2010).

Response to Human-Made Disasters

Human-made disasters include those whose perpetrators intend to cause harm as well as those that result from accidents. Of all intentional human-made disasters with the potential for mass casualties, terrorism has received the most attention. In the past, especially prior to the events of September 11, 2001, terrorism was associated in the minds of most U.S. citizens with distant places. In reality, however, both foreign and domestic terrorists have struck on American soil several times. Among the more recent of these acts were the 1995 bombing of the Alfred P.

Murray Federal Building in Oklahoma City and the 1996 Atlanta Centennial Park Olympic Games bombing, which resulted in one death, injury to hundreds, and alarm in every country participating in the games. Unlike other types of disasters, acts of terror, which can be perpetrated in any venue, are designed to instill fear and insecurity in a population.

Dickerson et al. (2002) examined the experiences of 17 civilian nurses who worked at Ground Zero following the World Trade Center attack in 2001. Employing a phenomenological approach, the authors described six themes that surfaced from the data. First was "loss of a symbol/regaining new meaning," which referred to the sense that in the wake of disaster everything had changed, yet through the disaster an awareness of human connection emerged and oneness was perceived as people came together to help. Second, "disaster without patients" was an awareness that a traumatic event of great magnitude could kill most of its victims. The third theme, "coordinating with and without organizations," related to nurses' satisfaction or frustration as bureaucratic organizations supported or hampered their ability to provide aid. "Rediscovering the pride in nursing" was the fourth theme, referring to nurses' sense of gratitude for being in a profession dedicated to assisting others. "Traumatic stress" also emerged as nurses recalled witnessing firefighters recovering body parts from the rubble, the grief and mourning of disaster workers, and the smell of death. Finally, the sixth theme, "preparing for the future," included understanding triage procedures in disasters, coordinating health care services during crises, and a need for more disaster preparedness. Though this study reported on the experiences of civilians, it is important to consider here because it runs parallel to and expands on the anecdotal experience of one military provider who responded to the traumatic events at the Pentagon on the same day.

In two personal interviews, the chief nurse of the health clinic in the Pentagon described her perspective of the events of September 11. She spoke of not initially knowing of the attack because her clinic was located in the basement, protected from impact until smoke began to fill the area. Her shock was immediately followed by action: taking charge, initiating the mass-casualty plan, marshalling her staff nurses to create teams to provide aid, triaging, and using civilian vehicles for transport. She reported working for days without sleep and assisting with initial efforts to find survivors, and she credited recent practice of the clinic's mass-casualty disaster plan for the quick reactions of her staff during the catastrophe. Like the civilian nurses in the Dickerson et al. research, the chief nurse reported pain at the realization that a disaster can leave few survivors, lingering feelings of sadness that were overcome by focus and action, and the essential contributions of civilians who stopped to help (Boivin, 2001; Office of the Medical History, 2002). Thus, from multiple perspectives, civilian and military impressions of this terrorist disaster are confirmatory.

Military Nurses and Disaster Preparedness

Emphasis on the preparation of U.S. military nurses in disaster response began in the late 1950s, when ANC Major Harriet H. Werley was appointed nursing consultant at the Walter Reed Army Institute of Research. Her advocacy for nurses resulted in the mandate that all ANC members receive training in disaster preparedness as a routine element of continuing education.

In time, working with the American Nurses Association (ANA), Werley developed a standardized achievement test in disaster nursing. The ANA's adopting this measure provided

the first national endorsement of the critical importance of disaster preparation for all nurses (Leifer & Glass, 2008).

Neal's seminal study (1963) is regarded as the first major effort to assess disaster preparedness in nursing (Komnenich & Feller, 1991). In conjunction with the National League for Nursing and the Federal Civil Defense Agency (which later became the Department of Defense), Neal, a nurse educator, conducted a pilot study from January 1958 through 1961 involving four schools of nursing whose administrations wanted to add disaster-nursing courses to their programs of study. The purpose of the study was to investigate and demonstrate how nursing students and hospital nursing staff responded to five disaster problems and other simulated scenarios. The pilot committee developed a questionnaire on disaster nursing preparation, courses being offered, and essential nursing content required for disaster aid and mailed it to 1,793 nursing students and faculty across the United States. Of those mailed, 1,194 (67%) were returned. Neal found that required disaster knowledge and skills were considered general nursing, few nursing faculty were skilled in disaster preparation, and practical laboratory experiences in disaster preparedness were limited.

Along similar lines, Zamarripa (2003) examined changing policies and approaches to disaster education and response in the U.S. Air Force. Her review incorporated a retrospective evaluation of an actual international natural disaster incident in which she was a responder. Challenges that she identified included sanitation, food security, safety, communication, and housing. Additionally, she discussed the duty to respond and the need for organization and flexibility.

Summary

As part of MOOTW, military nurses have been involved in disaster response for decades. Although oral histories of combat operations exist, little is known about the experiences of military nurse disaster responders. What is clear is that combat operations and disaster responses are not equal. Thus, for the military to meet its duty to care for its own and to assure the stability and optimal performance of its nursing workforce, it must understand the experiences and needs of military nurse disaster responders. Several authors have emphasized the potential for disaster responders to encounter emotional distress and the importance of monitoring their emotional well-being. Military nurses need to be prepared to deal with the emotional aspects of traumatic events. Viewing the responses from their perspective may provide insight into ways to help them cope in the future. This information would be applicable to both civilian and military health care responders.

Allowing military nurse responders to tell their stories regarding their experiences during disaster events could facilitate the discovery of new information and add to the documented history of military nursing. Knowledge gained could assist with developing more effective training strategies and facilitate increased coordination efforts between military and civilian health care providers in future disaster responses. Furthermore, little is known about how military nurses deal with communication issues in crisis events. The current study may provide useful information about this topic.

Although Neal (1963) stressed the critical importance of developing more effective training for military nurses who may one day respond to disasters, we have made little progress

in this regard. More than 40 years later, we have only begun to directly address the needs of military nurses who respond to disasters. In truth, we still know little about their lived experience. This study begins to fill that gap.

SCOPE OF THE STUDY

Specific Aims of Study

The purpose of this study was to understand the essence of military nurses' lived experiences of responding to disasters. The specific aims of the research were to explore experiences of military nurses who have been deployed in disaster environments and to examine the impact the disaster response had on their lives.

Research Question

One primary question drove the research: "What is the experience of the military nurse during and/or following a disaster response?"

RESEARCH PLAN

Introduction

The purpose of this study was to garner the essences of military nurses' experiences in disaster response using phenomenological procedures outlined by Thomas and Pollio (2002) and founded on the existential phenomenological method of Maurice Merleau-Ponty (1945/1962).

Framework

Because phenomenology studies are used when little or nothing is known about a topic and are thoroughly exploratory and descriptive, they do not use a conceptual framework per se. However, phenomenological studies are supported by a philosophical stance. Phenomenology arose from the humanistic tradition and began as a response to the Cartesian dualism of the existence of body and mind (Pollio, Henley, & Thompson, 1997). The philosophical basis for this study is grounded in the existential phenomenological works of Merleau-Ponty, who wrote, "phenomenology is the study of essence; and according to it, all problems amount to finding the definitions of essences … [it] is a philosophy for which the world is always 'already there' before reflection begins … it also offers an account of space, time, and the world as we 'live' them" (1945/1962, p. vii).

Existential phenomenology combines the philosophy of existentialism with the technique of phenomenology to create a meticulous and distinct depiction of human life, including elements of the body, time, space, and others. The result is that the human experience of the

world is described in rich detail from the expert perspective of the one who lives it (Thomas & Pollio, 2002).

Design

Qualitative Approach

Qualitative approaches permit the researcher to investigate experiences through the lens of the participants and gain an understanding of how their views relate to the context of their world. Every individual's experience is unique and valuable. Qualitative designs allow participants to relay their stories with a richness that facilitates the researcher's insight into their experiences (Creswell, 2003).

Qualitative research emphasizes the close relationship between the participants, their world, and the phenomenon under investigation, giving meaning to the experience through the participants' language. This research occurs in the natural environment of the participant, is interpretive in practice, and describes a phenomenon as it emerges through the relationship between the researcher and participant (Denzin & Lincoln, 2005). Qualitative research may explore personal experiences that bring meaning to the participants' lives using interviews and other resources. Open-ended questions are used to gather data. The researcher is actively involved with the participant, building rapport and credibility while remaining respectful and attentive to the individual and following wherever the story takes them. Through this interconnectivity, the researcher hopes to garner new knowledge that will help individuals deal with the phenomenon under investigation in the future (Creswell, 2003; Denzin & Lincoln, 2005).

In my experience, nurses work in a humanistic arena daily. Through dialogue with our patients, we gain a deeper insight of the essence of the things they have experienced. Would it not be feasible to employ the same method (dialogue) to research the essence of a specific phenomenon? We understand that our patients view life in a multiplicity of ways. Similarly, participants may respond to experiences in different manners. Qualitative research provides a naturalistic, holistic perspective that allows an interpretive perception of the human experience. In other words, qualitative research allows participants to depict what is important or "stands out" to them through language and conversation.

Hermeneutics

Language and conversation are the cornerstone of our access to understanding. Conversation is the exchange of language between two individuals striving for an understanding of a certain topic. Therefore, language, as it unfolds in the transcribed words, becomes the center of the experience related. Language is not merely a tool of understanding, it is the "universal horizon of the hermeneutic experience" (Gadamer, 1976).

Existential phenomenology employs language as the method of inquiry to describe everyday experiences. Hermeneutics is the procedure used to interpret the meaning of dialogue (Byrne, 2001; Pollio et al., 1997). According to Gadamer (1976), hermeneutics "seeks to throw light on the fundamental conditions that underlie the phenomenon of understanding in all its modes … the application is comprised of all those situations in which we encounter meanings that are not immediately understandable but require interpretive process" (pp. xi–xii). Thus, through the interpretive process, the past meaning of the experiences becomes fused with the

present-day understanding (Gadamer, 1976). Pollio et al. (1997) describe the hermeneutic circle used in phenomenology as a continuous interpretive process that relates parts of the text (words and phrases) to the entire transcript, culminating with development of a thematic description of the participants' experience of the phenomenon under investigation. Allen and Jensen (1990) describe hermeneutics as a very old science used to understand biblical texts. "Hermeneutics," according to Byrne, comes from two Greek words, "the verb *hermeneuein*, meaning to interpret, and the noun *hermeneia*, meaning interpretation" (2001, p. 968). Hermeneutics has moved from a method to interpret biblical text to an approach used to describe experiences of individuals.

Bracketing

Following the method delineated by Thomas and Pollio (2002), the researcher must first recognize his or her own presumptions regarding the topic to be studied. To do so, the researcher must bracket, or establish prior knowledge, biases, and assumptions. A bracketing interview is conducted for this purpose. Valle and Halling (1989) noted that bracketing brings the researcher's feelings or thoughts regarding a phenomenon to consciousness, and he or she becomes aware of his or her own understanding of the event. Adhering to this process allows the interviewer to suspend any preconceived thoughts that would distort or alter the study during the interview process or in the analysis of the data. The researcher must remember that bracketing is not a single event and must remain cognizant of the need for re-bracketing throughout the study (Pollio et al., 1997; Thomas & Pollio, 2002; Valle & Halling, 1989).

Once the bracketing interview is completed, data are transcribed and analyzed. Themes that emerge illuminate assumptions or presuppositions so that the researcher may avoid

introducing bias during an interview. Completing a bracketing interview also teaches the researcher about the essence of the experience for himself or herself.

Pilot Interview

Continuing the procedures outlined by Thomas and Pollio (2002), the last step completed prior to beginning the study is a pilot interview. The pilot interview tests the interview question, the researcher's ability to conduct an interview, and the design of the study.

Human Subjects Procedures

The University of Tennessee, Knoxville, awarded approval to conduct the study involving human subjects. Following the established guidelines, I provided a completed Form B to the College of Nursing Human Subjects Committee and the Institutional Review Board (IRB). Additionally, because the study was supported by grant funding from the TriService Nursing Research Program, the Uniformed Services University of the Health Sciences granted IRB approval in accordance with Department of Defense Directive 3216.02, dated March 25, 2002. Following both IRB approvals, the research commenced.

The informed consent process and the risks and benefits of the study were explained to each participant via e-mail or telephone prior to the interviews. At each individual face-to-face interview, an informed consent form was presented to the participant for signature. I verified that the participants understood their participation was voluntary and they could stop the interview or withdraw from the study at any time (Appendix H). In addition to the consent form, each participant completed a single-page demographic sheet (Appendix I). Participants were informed

that data obtained from the study would be presented in aggregated format without identifiers and disseminated in written publications and podium or poster presentations. Additionally, I communicated to the participants that only the transcriber and I would hear the digital recording of the interview and that the transcriber would sign a confidentiality pledge before transcribing any interviews (Appendix J). Finally, I explained that the Interpretive Phenomenology Research Group and dissertation committee would review some of the transcripts after signing confidentiality pledges (Appendices K and L) for the purpose of assistance with data analysis. At the conclusion of the above-mentioned information, all participants consented to continue with the interview. A copy of the consent form was provided to each participant.

All interview data were entered into a file on my home computer, which is password protected, and downloaded onto an external drive that was disconnected and locked in a file cabinet in my home office. All copies of the transcripts, demographic sheets, and signed consent forms were maintained separately in a locked file cabinet in my home office.

Risks

Participants

The primary risks to participants in this study were emotional. Participants were engaged in talking about their experiences with disaster responses. Although for some nurses this caused no unusual stress response, for others who were in disaster areas for a long time or who witnessed difficult or unpleasant events, these recollections could have caused emotional upset. In an effort to minimize risk, volunteers for this research were prescreened during initial contact prior to scheduling the interview to exclude the presence of ongoing mental health conditions

related to combat, deployment, or disaster. Each participant was asked, “Are you currently undergoing mental health treatment (including medication management or psychological counseling for PTSD or other disorders) related to combat, deployment, or disaster?” All participants denied being on any medication or undergoing psychological counseling when they agreed to participate in the study.

I was cognizant of any signs of increased stress or anxiety during each interview. If I witnessed any of these signs, I offered to either pause the recording or terminate the interview based on the circumstances. Twice during the interviews, recordings were paused, but the interviews continued upon the request of the participants. As a military nurse, I have had mental health training in recognizing and dealing with combat stress. If I had felt a participant was becoming distressed, I would have terminated the interview and directed the participant to the appropriate care. All interviews were held in areas close to military bases with mental health facilities.

At the end of each interview, I stayed with the participant and discussed other topics to help reduce any stress that may have arisen during the recounting of the disaster response. As an added precaution, mental health crisis numbers and additional mental health resources were listed at the bottom of the consent forms left with each participant. Before I left their presence, I reminded participants of these numbers should they wish to talk to someone.

Researcher

I had previously made the acquaintance of several of the military nurses who eventually participated in the study. One had been assigned to a prior duty station with me; one was an

instructor at a university I had attended; one I met casually at a conference; and another I met during the course of my doctoral studies. Although I had knowledge of these individuals as part of the large umbrella of the unified military family, I did not have any preexisting close informal relationships with them outside of military functions. At no time during our interactions was I aware that these individuals had a history of disaster response.

Because I have a close sense of community with other military members, I knew I might experience my own emotional stress during the interview process. To counter this stress, I never scheduled more than two or three interviews per day and kept at least two to three hours between the interactions. I also wrote my concerns and reactions to the interviews in field notes and talked to my dissertation chair when interviews were especially difficult. Staying with the participants for a short time following the interview also helped to reduce any increased anxieties I or they might have encountered.

Benefits

The interviews had the potential to be a cathartic and healing experience for the participants. Participation in this research allowed individuals to talk to someone who understood the military culture and language about their disaster response experiences. Hoping to improve response efforts in the future, many participants openly expressed their desire to participate in the study. Several participants freely admitted that the training they received in combat readiness did not meet the needs for disaster responses. Because all participants volunteered to share their experiences and the interviews were unstructured and open-ended, they were free to share any facet of the response experiences after the initial question. Some mentioned that they had not

thought much about the disaster response until they were invited to participate in the research. Many expressed deep emotions ranging from fulfillment to frustration. Most classified the disaster response as beneficial, a growth experience in which they learned about the members of their team and about themselves. All mentioned it was something they would gladly do again. Overall, the benefits of the research study seemed to exceed the risks.

Sample and Recruitment

Sample

All participants met the following inclusion criteria: (1) had in the past responded to one or more disaster events as part of the military, (2) spoke English, (3) were willing to share their story, (4) were able to recall and discuss their disaster experience, (5) were 21 or older, and (6) were U.S. military nurse officers. Nurses were from several different branches of the military, including the U.S. Public Health Service. No participants were from the National Guard. There was no restriction to race or gender. All the nurses who participated denied an ongoing history of psychological distress or emotional crisis related to disaster or combat deployments.

Nurses undergoing mental health treatment (psychological counseling for PTSD or other disorders) related to combat deployment or disasters were excluded from the study to avoid increasing their psychological burden. No nurses were excluded for this reason. Eight potential participants who did not meet the criteria were excluded from the study. These military nurses had considered the response to Iraq, Afghanistan, and other military conflicts to be a disaster response. I thanked them for their interest in the study and explained that they did not meet the inclusion criteria.

A purposive, "snowball" sampling method was used to elicit participants for the research. Purposive sampling means identifying specific participants who have the knowledge or experience to help the investigator understand the problem and central phenomenon under study (Creswell, 2007). "Purposive sampling is used most commonly in phenomenological inquiry. This method … selects individuals … based on their particular knowledge of a phenomenon and for the purpose of sharing that knowledge" (Speziale & Carpenter, 2007, p. 94). "Snowball" sampling supplemented the purposive: participants who completed interviews were asked to assist by recruiting others who met the sample criteria. The interviews thus resulted in a rich description of the phenomena being studied.

Recruitment

Recruitment was accomplished by several methods: (1) making the study known to military nurses who were familiar to the principal investigator, (2) asking participants to share information about the study with other potential participants, (3) posting information in public areas of local hospitals and universities, (4) via dissemination actions taken by the different branch research consultants, and (5) contacting the local reserve and National Guard units. Refer to Appendix G to review the information flyer.

The regional area targeted was eastern Tennessee, extending from Johnson City in the north to Chattanooga in the south. However, some of the participants were located at military bases in other states. I drove or flew to several sites to accommodate the participants.

In phenomenological research, no set number of participants is predetermined. Data collection continues until ongoing analysis reveals no new themes that add to the phenomenon

description. When this level of data saturation is reached, data collection ceases. In this research, it was not possible to give a firm number of participants that would be required to fully understand the experience of the nurses, but it was estimated that a minimum of 12 would be enrolled in the study. Creswell (2007) recommended a sample size of 2–25 participants for a phenomenological study. Therefore, the estimated enrollment of participants was appropriate. Interviews were conducted until saturation or redundancy was accomplished. Following the recommendations of Thomas and Pollio (2002), at 21 interviews, when saturation was considered to have been met, two additional interviews were completed to ensure that the experiences of military nurses in disaster response were fully described. No new information emerged in the two additional interviews, demonstrating that saturation had indeed been met (see Table 1).

Table 1.

Recruitment and Retention

	Projected number from original proposal	Actual number
Subjects available	12–15	31
Subjects contacted	31	31
Subjects screened	31	31
Subjects not eligible	8	8
Subjects consented	23	23

Data Collection and Transcription

Data Collection

Potential participants contacted me via e-mail and phone. I ensured they met the criteria of the study and established a date, time, and place to meet for the interview. I encouraged them to select a place that would be quiet and comfortable for them and where we would have the least chance of disturbance. I drove or flew to the area the day before each interview to ensure that I was thoroughly rested prior to the interviews. Interviews took place in university offices, participants' homes, quiet areas in a hospital, private conference rooms, private business offices, a hotel garden, clinic offices, and a restaurant.

The face-to-face meeting always began with a brief introductory conversation to help establish rapport. If I knew the participant, there was a brief sharing of events that had transpired since we last met, such as duty assignments, birth of children, or my progress in school. If I was meeting the participant for the first time, I briefly disclosed information regarding my nursing background and duty assignments and asked about their current duties or family to help reduce any uneasiness. I was careful to avoid revealing any information that could be directly related to the content of the study. I maintained a professional manner while listening respectfully and attentively to their stories without interruption unless clarification was needed. I anticipated that most interviews would last between 45 minutes and 1 hour. However, based on the phenomenological method, participants were allowed to talk as long as they wanted or needed to share their experiences.

Often, the participants made comments at the conclusion of the interview, after the recording was stopped. I documented those comments in my field notes. On one occasion, the conversation continued longer than usual with additional information that I felt we needed to record. I asked the participant if we could turn the recorder back on. When I received approval to continue the recording, I asked the participant to share the last bit of information again so I could have it documented for analysis in the transcript.

I used a digital voice recorder to document the nurses' stories during the interviews. I tested the equipment prior to the start of each interview. I always had additional batteries and a second recorder in case something failed to perform correctly. I had each participant say a few words to test his or her voice for volume and clarity before beginning the actual interview. The test recording was erased in the participant's presence. Before beginning the interview, I briefly explained the procedure we would follow during the interview, obtained written consent for participation and a completed demographic sheet, and verified that the participant did not have any questions. Each interview was initiated with the research question "When you think about your disaster deployment, what stands out for you?" I asked each participant additional probe questions, such as "Tell me more about that," "How did you deal with that?" "Could you clarify that a bit more?" and "Previously you mentioned that … would you share more about that?" for clarification of previously mentioned information and to encourage the description of their experiences. When it appeared the interview was coming to a close, I always asked the participant if there was anything else he or she would like to add that we had not discussed. If there was no additional information, I concluded the interviews by thanking the participants for their time and the sharing of their experiences. Frequently, participants would tell me how much

they appreciated being asked to talk about their experiences. Several stated it was the first time anyone had asked them outside of an official report or discussion.

The interviews lasted from 27 minutes to 1 hour and 10 minutes. During the interviews, the participants described the experience in rich detail, as if they were reliving it. None of the participants asked me to stop the interview, although I did pause the recording when two individuals became emotionally distraught and could not speak through the tears. After a bit, I asked the participants if they wished to continue. I received a slight smile or a positive nod and completed the interviews. Almost all the participants asked for a copy of the dissertation when it is completed. Many shared pictures following their interviews.

When I left the interviews, I made entries in my field notes. The notes included information regarding the setting, interruptions, disturbing noises, body language, additional comments after the recording ended, and my reactions to the interview. I always felt physically and emotionally drained following an interview. Often, I would have a headache. If an interview was particularly painful, I talked to my dissertation chair, discussed my feelings with a nurse colleague, tried to read a novel, or had my husband hold me if he had accompanied me on the trip.

Transcription

As quickly as possible, I sent the digital recordings to the transcriptionist, who had signed a confidentiality pledge (Appendix J). The transcriptionist was familiar with the procedures for transcribing phenomenology interviews. The interviews were transcribed in the exact language used by the participant, including pauses, changes in speech patterns, inflections, and tone of

voice. After the transcriptions were completed, I verified that the words matched the digital recordings. Any difficulties with verbiage, such as military or nursing language, were corrected prior to beginning analysis.

Data Analysis

Line-by-line analysis of all transcripts was completed following the existential phenomenological method outlined by Thomas and Pollio (2002). To interpret the transcribed interviews, I employed the method of hermeneutics to identify key words, phrases, and themes, thus illuminating the essence of the military nurses' experience of responding to a disastrous event from their expert perspective. Hermeneutics seeks to identify/discover specific meaning in parts of the text when compared to the entire transcript. Ultimately, this process is used to understand the meaning of the phenomenological experience across all transcripts obtained in the study.

In this study, interpretation began with the initial examination of small parts of the individual participants' transcripts, which permitted an understanding of how separate pieces related to the whole document. This facilitated the comparison of individual participants' texts to one another, affording an initial understanding of the data. Next, consideration of key phrases and words led to a greater comprehension of the texts. This was a continuous process, moving forward and backward within individual transcripts and across the different transcripts and finally circling back to common themes as the essence of the experience unfolded.

I analyzed all the transcripts, examining verbatim statements to identify meaning units, recurrent themes, and patterns of meaning, and eventually arrived at a unified description of

being a military nurse providing disaster response. I examined several of the interviews in consultation with my dissertation chair, a nursing professor who was trained in phenomenology, to ensure I had a thorough understanding of the nurses' experiences of responding to a disaster. Additionally, I used the field notes to assist with verifying the accuracy of transcription; contribute to a fuller, richer understanding of the informant's experience; and reduce bias by revealing events that could have influenced my interpretation of meaning of the experience.

Furthermore, six of the transcripts were selected to be analyzed with the Interdisciplinary Phenomenology Research Group. To ensure confidentiality, all identifying information, including military branch identification, personal names, military sites, and the names of the disasters, was removed or changed before group analysis. The only demographics provided were gender, place of interview (e.g., office, conference room), number of years in nursing at time of disaster, and area of nursing specialty. Disasters were referred to as either natural or man-made. Prior to the reading of the transcripts, group members signed a confidentiality pledge (Appendix K).

Each transcript was read aloud to the group. Two people participated in the reading, one as the interviewer and the other as the research participant. The hermeneutics method was applied in the group setting. As the group progressed through the transcript, members could call a halt to the reading to discuss words or key phrases that stood out to them. Often, these words or key phrases related to other sections of the texts. This was noted by the group as the readings and discussion continued until the transcript was completed. At the conclusion of the reading, the group considered commonalities in the transcript as they related to the transcript itself and

previous transcripts that had been presented in the group. Through this discussion, the group and I tried to identify words, key phrases, or metaphors that might describe the chief attributes of themes—patterns or relationships that describe the meaning of the participants' experience of the phenomenon under investigation.

After identification of the themes, I developed a thematic structure supported by the verbatim transcripts. I shared my themes and diagram with the Interdisciplinary Phenomenology Research Group, which sought to determine whether the themes and diagram truly represented the experience that was researched (see Figure 1). Following the validation of the themes and structure by the research group, I shared a summary of the research findings and thematic structure with several of the participants, seeking verification that the outcomes of the study authentically represented their experiences. Having input from the group and feedback from the participants helped to minimize bias in interpretation of findings and enhanced the rigor of the study.

Methodological Rigor in Qualitative Research

In qualitative research, the goal of achieving rigor is to provide a clear, concise understanding of the meaning of the participants' experiences as they were lived. This task is accomplished by gathering rich, detailed descriptions of the phenomenon in the words of the participants, leading to information that will enhance practice in the future.

Rigor is achieved through the use of several techniques: (1) The research begins with a single focus or topic to be explored, (2) an appropriate research design is selected that answers the research question, (3) the researcher brackets thoughts or assumptions to prevent bias during

interviews and data analysis, (4) the study outlines in detail methods employed to collect and analyze the data, (5) interviews continue until saturation is achieved, (6) ethical concerns are monitored and ethical principals are maintained throughout the study, (7) the researcher brings the reader into the world of the participant through examples that demonstrate the patterns and relationships, and (8) the knowledge garnered from the study adds to previous information relating to the topic (Creswell, 2007; Meadows & Morse, 2001).

Denzin and Lincoln (2005) cited several criteria for rigor: credibility, dependability, confirmability, and transferability. Researchers who address these concerns strengthen the trustworthiness of their study data.

Credibility: Credibility refers to confidence in the truth of the data and interpretation. According to Polit and Beck (2004), two essential methods to strengthen data credibility are organizing the study using an approach that enhances believability and taking steps that demonstrate credibility, such as prolonged engagement, defined as "the investment of sufficient time collecting data to have an in-depth understanding of the culture, language, or views of the groups under study," and persistent observation, which refers to the "researcher's focus on the characteristics or aspects of a situation or a conversation relevant to the phenomenon being studied" (p. 430).

The field notes that I kept throughout the study strengthened the credibility of the data collected. The notes recorded the reactions of both the participants and the researcher. They included participant comments, thoughts on interview surroundings, and comments on participant/researcher interactions. I focused on the relevant aspects of the participants'

experiences throughout the interview by listening attentively. All interviews began with the same initial question, and I followed the participants into their experiences based on their individual stories. Each interview continued until the participant indicated he or she was finished.

Furthermore, member checking and peer review add to data credibility. Member checking "is the process of returning to selected informants, to discuss the findings of the study, and validate if the findings are representative of the experience of the informants" (Connelly & Yoder, 2000, p. 76). I e-mailed or mailed a summary of the findings to the participants and elicited their feedback on the accuracy of the study results regarding the essence of their experiences. Peer reviews involve meetings with individuals who are familiar with either the phenomenon being studied or the method being employed. In the sessions, the researcher presents written or oral summaries of themes that have emerged and his or her interpretation of the information for validation of the data (Polit & Beck, 2004). Throughout the research study, I carried interviews to the Interdisciplinary Phenomenology Research Group for feedback and assistance with transcript analysis. Additionally, when all transcripts were analyzed, I carried potential themes and supporting verbatim statements to the group for their input and validation of the data.

A final aspect of credibility is the reliability that is placed with the researcher as data collector. Polit and Beck (2004) noted that the researcher should include brief information about himself or herself when establishing rapport with the participant and in the research report. In my beginning conversation to establish authenticity with the participant, I explained I was a military nurse in a doctoral program and was interested in their experience of disaster response. I

provided brief information about my nursing background and my studies in disasters. I did not disclose my rank or time in service. Information regarding my nursing credentials is provided in the curriculum vitae section of my dissertation.

Dependability: Dependability in qualitative data refers to the consistency and stability of the data over time and conditions (Polit & Beck, 2004). The dependability of the data was established by the thorough description of the research method used in the study. Additionally, the transcripts were read and then reread to ensure the themes that emerged were consistent across the different transcripts. Peer reviews supported the establishment of dependability. Feedback and suggestions were considered as the complete data were interpreted.

Confirmability: Confirmability is the process that affords the reader a clear understanding of the steps and methods employed in the study. It also refers to establishing similarity among the different participants' experiences with reference to the data's accuracy, relevance, or meaning (Polit & Beck, 2004). In qualitative studies, particularly phenomenology, bracketing and field notes substantiate confirmability. Both techniques were employed in this study.

Bracketing prior to proceeding with the study reduced the potential for biases during the interviews and in the analysis phase. The field notes established an audit trail throughout the interview and data analysis process. Dates, times, locations, and environments of the interviews were documented. Specific information regarding reactions and expressions of emotions were included. These written data provided additional information to support confirmability.

Each interview was digitally recorded and stored on an external drive. The stored recordings facilitated continuous review in conjunction with the transcribed text to ensure

accuracy of the data. I reviewed all transcripts individually and collectively, noting similarities and differences between and among the data. In addition, the Interdisciplinary Phenomenology Research Group reviewed several transcripts and provided comments. The group also assisted me in verifying the relevance and accuracy of the themes and thematic structure. Finally, several participants reviewed a summary of the study that included the themes that emerged. Participants provided feedback regarding the relevance and accuracy of the information based on their experiences of responding to a disaster.

Transferability: Transferability pertains to the utility of the findings and is assessed by those who may find the outcomes applicable to their practice. Providing a rich description of the study permits readers to formulate thoughts regarding transferability. To ensure that this criterion is met, the researcher should review the generated data and reflect on two questions: (1) Is the presentation powerful enough to convince the reader the findings are accurate? (2) Does the information have richness or relevance to practice? Efforts to demonstrate transferability of the findings were grounded in rich description using verbatim statements of the research participants. This information is included in the results section. Within the realm of nursing knowledge, the study identified the need for disaster courses to be added to nursing academia. Additionally, disaster preparedness training should be developed within the different military nursing branches. These recommendations are discussed in greater detail in the discussion section.

Reliability: Another criterion of rigor is reliability. Several of the previous criteria have mentioned ways to strengthen rigor, but reliability has not been specifically addressed. The

purpose of reliability is to establish thematic consistency. Therefore, if an independent reader adopting the same frame of reference expressed by the researcher can also envision what the researcher saw, the study has reliability. Another concern of reliability is the replication of thematic structure. It is feasible to anticipate that similar themes would be found in a new study based on the same phenomenon, although the same words may not appear (Thomas & Pollio, 2002). In this study, reliability was achieved when the members of the phenomenology research group were able to visualize what I saw. Employing the aforementioned methods helped to validate methodological rigor in the study.

RESULTS/DISCUSSION

Twenty-three registered nurses from different U.S. military branches participated in the study. They had responded to a range of calamitous events, including natural and man-made disasters, that occurred between the beginning of 1989 and the end of 2008 (see Table 2). The length of time from disaster response to interview had no apparent impact on participants' ability to recall details. In no instance did participants need to search for memories. Recollections were clear and meticulous. The length of the participants' deployments varied from one day to six months, depending on the nature of the response mission. All participants were officers.

Table 2
Overview of Disasters Discussed and Year of Occurrence

Disaster	Year
Loma Prieta Earthquake	1989
Red River Valley Flood	1997
Adana-Ceyhan Earthquake	1998
Hurricane Mitch	1998
U.S. Embassy Bombing, Nairobi	1998
Pentagon Attack	2001
Washington, D.C., Anthrax Attacks	2001
Hurricane Ivan	2004
Bethel, Alaska, Flu Epidemic	2004
Soto Cano Air Base Crash	2005
Hurricane Katrina	2005
Hurricane Rita	2005
Muzaffarabad, Pakistan Earthquake	2005
St Louis, Missouri, Tornado	2006
Hurricane Gustav	2008
Hurricane Ike	2008
Tropical Storm Hannah	2008

At the time of the interviews, the participants' years in service ranged from 6 to 33; average was 17. Years in nursing at the time of disaster response ranged from 4 to 37 years with an average of 14. At the time of disaster response, 10 participants had baccalaureate degrees in nursing, 8 had master' of science degrees in nursing, 1 had a master of public health, 2 had master of arts degrees in business, and 2 had doctorates in nursing. The modal education level was master's degree. Nursing specialties practiced were emergency/trauma (seven participants), medical/surgical (seven), critical care (four), community health (one), cardiovascular (one), flight nursing (one), OB/GYN (one), and hematology (one). Table 3 provides additional participant demographic data.

Table 3
Overview of Participant Demographics

Interview Number	Participant Pseudonym	Gender	Military Branch	Nature of Disaster	Age at Disaster	Number of Disaster Deployment(s)
1	Ellen	Female	Navy	Natural	58	1
2	James	Male	Air Force	Man-Made	34	1
3	Stephanie	Female	Air Force	Natural	31	2
4	Jackie	Female	USPHS	Natural	46, 47	2
5	Bonnie	Female	USPHS	Natural, Man-Made	34 31	1 1
6	Nancy	Female	Army	Natural	47	1
7	Robert	Male	Army	Natural	40	1
8	Debbie	Female	Air Force	Natural, Man-Made	49, 52* 51	3 1
9	Heather	Female	Air Force	Natural	33	1
10	Henry	Male	Army	Natural	51	2
11	Tabitha	Female	Air Force	Natural	33	1
12	Christina	Female	Air Force	Natural, Man-Made	34 27	1 1
13	Julie	Female	Air Force	Natural	36	1
14	Cynthia	Female	Air Force	Natural	42	1
15	Doug	Male	Air Force	Natural	33	1

16	Alex	Male	Air Force	Natural	36	2
17	David	Male	Army	Natural	48	1
18	Scott	Male	Air Force	Natural	38	2
19	Dennis	Male	Army	Natural, Man-Made	32 28	1 1
20	Lisa	Female	Army	Natural	35	1
21	Sharon	Female	Army	Natural	42	1
22	Cory	Male	Navy	Natural	39	1
23	Cameron	Male	Army	Natural	43	1

*Age remained the same for the third natural disaster deployment.

How the Stories Were Gathered and Told

In addition to who the participants were and the content of the themes to follow, the way in which their stories were shared is important. All participants began with a discussion of the military culture that defined them and their worldviews. Those discussions were marked by confidence and strength. But when the discussion shifted from the familiar context of the military culture to the actual disaster experience, the tone shifted dramatically, and the mood became more somber.

In times of catastrophic events, as local medical aid becomes overwhelmed, military nurses are called to render assistance. In those periods, they work hard to serve and fulfill their mission, striving and at times struggling to maintain the inner strength expected and demanded by the military. After the crises pass and the disaster response missions end, they move on, often sharing little about their experiences with others. As I listened to military nurses who volunteered for this research and revealed their lives to me, I felt empathy for them. During the interviews, the participants described their experiences in rich detail, providing exemplars of both triumphs and struggles.

As the participants began sharing their experiences of the journeys into the disaster events, many broke direct eye contact with me. Often, as their eyes focused on the floor or a spot on the wall while they talked, it was as if they were reliving their time in the disaster zone. One participant's words were especially heartrending but insightful:

> I remember … that memory is almost like HD [high definition]. Those memories … are kinda black and white … and you have some that are crystal clear … you remember the time of day, the temperature, the breeze blowing … how fast it was blowing, people running back and forth … you can almost see their faces sometimes … when they are coming down the hill … and the looks on their faces … and how they are looking for … some hope or understanding. (Dennis)

At times, the participants were animated, almost rushing to explain something positive or exciting about their experience. At those times, I was pulled into the moment, integrated into their experience, racing along with them. But at other times, their voices would become almost a whisper; sometimes they cried as they withdrew into themselves. The pain they were still experiencing became obvious on their faces even though their disaster response efforts may have occurred several years in the past. Several participants coughed or cleared their throats when talking, as if it was hard to voice their words. During those times, the narrative would break in flow as they moved away from uplifting topics toward others that were painful or emotionally upsetting.

At other times, participants would smile when describing a difficult situation or laugh at something they expressed as frustrating while shaking their heads. When they became angry, typically their speech was loud and more pronounced.

As the interviews began to draw to a close, the participants described the importance of their involvement in the disaster response. Some spoke of how their assistance was essential to their civilian colleagues as well as the victims. One participant shared her thoughts on the salience of their response actions and her civilian colleagues. She observed one major difference between disaster and war: In combat, the rank structure provides clear direction on reporting. In disaster, it is unclear who is in charge.

> We are a structured military asset that must be able to integrate into the crisis arena with our colleagues, without rank, while sharing our expertise. Our civilian counterparts need our help during these traumatic times. They cannot do it by themselves. However, we are not in charge; we merely bring order to the chaos and then pass the baton. These efforts require lots of coordination and communication. … We bring the flag and a sense of relief into the chaos. (Sharon)

Listening to the participants' stories had an impact on me. I heard the sadness in their voices as they told of trying to help victims locate missing loved ones. Additionally, I saw the emotions on their faces as they spoke of the severity of loss suffered by the victims and of the devastation that was still apparent months later. Sometimes I cried with them.

At the end of our time together, nearly all thanked me for asking about the experience. Several stated it was the first time they had really thought about their experience with non-war-

or non-combat-related calamity. Sometimes it was the first opportunity they had to talk about what had occurred and how it affected their lives. In an effort to help them decompress and gather themselves, I always stayed after the interviews to talk about things like family, jobs, or the military in general. Frequently, as we engaged in this end-of-meeting sharing, they would drift back to a topic that had emerged in the disaster interview and discuss it again for a little while. It was not unusual for us to share a hug before I left.

Thematic Structure

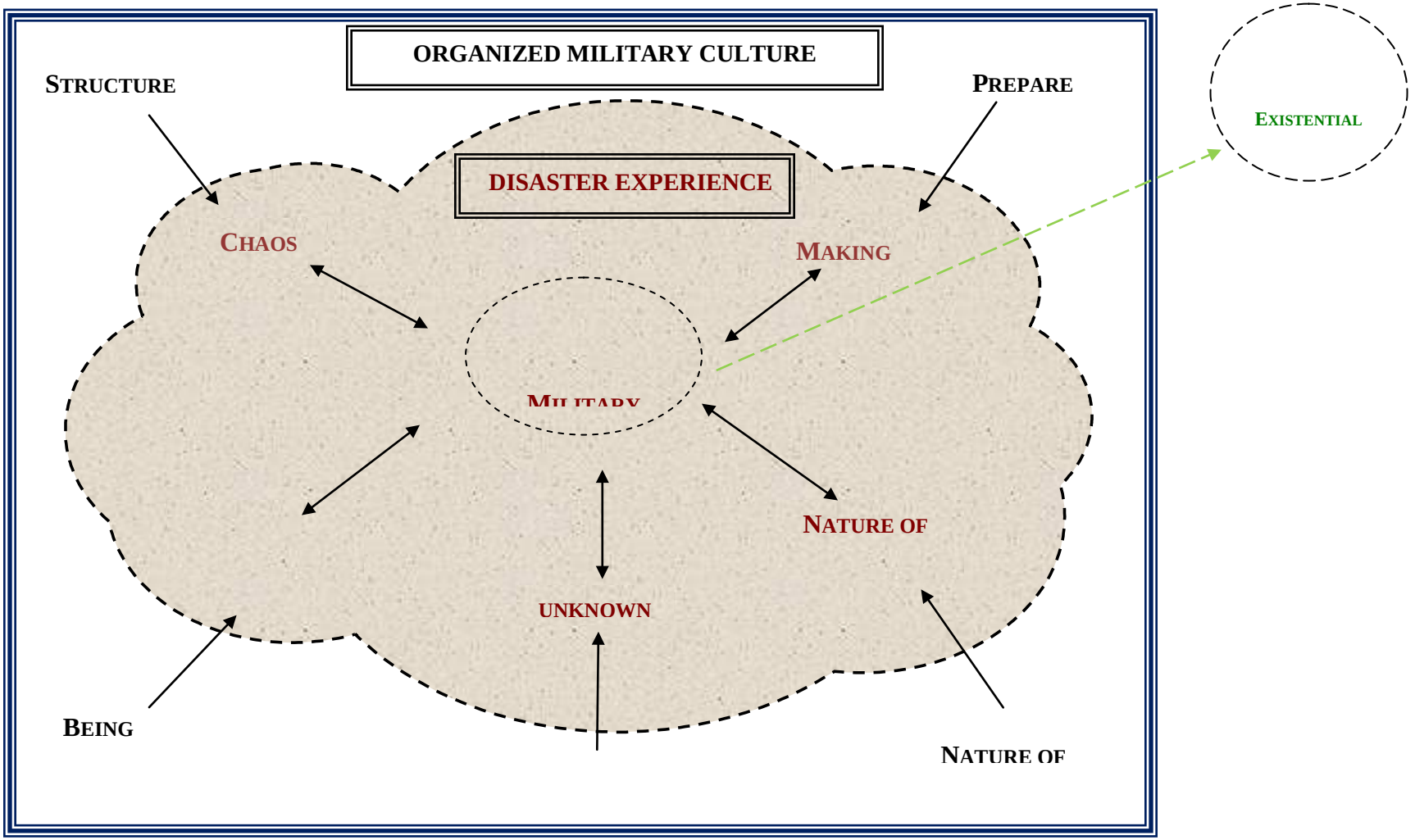
The thematic structure derived from the interviews with military nurse participants contains five polar themes: “Nature of War” versus “Nature of Disaster”; “Known” versus “Unknown”; “Structured” versus “Chaos”; “Prepared” versus “Making Do”; and “Being Strong” versus “Emotionality.” One other theme, “Existential Growth” illuminates how the participants’ perspectives changed based on their disaster response. Figure 1 provides a pictorial overview of the two contextual grounds with themes. By reviewing the figure, one can visualize how the military nurse participants moved from an organized military culture into that of the disaster experience.

The dark square surrounding the contextual ground of organized military culture represents the rigid, structured environment of the military lifestyle. The cloud is a free-form, shifting figure without structure, representing the constant change encountered within a disaster experience. The dotted lines that surround the military nurse in the center of the diagram indicate that the participant is shifting, adapting to the environment as the challenges present themselves in the chaotic situation. The line that leads away from the military nurse is dotted and green,

indicating learning and growth. It leads to the theme of “Existential Growth,” which is also surrounded by dotted lines. As the participant reflects on his or her disaster experience and position in the world, the dotted line represents growth, becoming, and transcending. As one looks at the structure, one notices the arrows within the white space pointing toward the center. These arrows represent the themes of the organized military culture: “Nature of War,” “Known,” “Structured,” “Prepared,” and “Being Strong.” They also represent the journey of the participants as they move away from their familiar military life and into the disaster experience. The “Nature of Disaster” is an “Unknown” world of “Chaos” where military nurse participants must “Make Do” with what is available, and they encounter the “Emotionality” that ensues from working within the disaster experiences.

Figure 1

"Into the Unknown": Military Nurses' Experiences in Disaster Response



Phenomenological World of "Others"

The essence of the nurses' experiences responding to disasters was concentrated in the phenomenological world of "others." In this world, according to Thomas and Pollio (2002), life is experienced through the encounter with significant individuals; subsequently, bonds are formed between those who have lived the experience together. In this research, which confirms the contention of Thomas and Pollio, the participants formed relationships with their colleagues who were responding to the disaster event. Several participants related that they did not know their teammates when they left for the disaster response, but learned how to work with them as they became familiar with each other. The special link that was established flourished. They became a family that was always cognizant of the physical and mental welfare and safety of each individual.

Additional relationships were formed with the other disaster response organizations. As the participants collaborated with relief agencies, they created partnerships that were essential for obtaining food, water, and logistical supplies. Communication was another important element in the disaster relief. The participants were able to link with local non-governmental groups to establish networks with other military and civilian health care providers to facilitate care and evacuation procedures.

The final type of relationship within the world of "others" was the participants' associations with the victims of the disasters. The participants listened to the individuals' stories as care was provided, hearing about the tragedies each had endured. They tried to comfort family members who were being separated on different evacuation flights because one member's injury

was more severe than the other's. Some of the nurses worked with patients who were expected to die, keeping them as comfortable as they could and then placing them in body bags to be carried away once they had expired.

Themes and Exemplars

This section is divided into two parts, which are illustrated by Figure 1: the contextual grounds of military culture and disaster experiences. The section on the contextual grounds of military culture is the introductory segment because military culture served as the reference point for all the participants' stories. Before they went to their disaster deployments, they were, at their core, soldiers, and they viewed the world through the lens of the military. Therefore, in discussing their disaster experiences, participants first spoke of their knowledge of war and combat. The whole of their disaster response was lived and told in comparison to military life and training. For every point that is made about the military and its combat orientation, the converse is true about participants' views regarding disaster. The first specific aim of the study was to explore the experiences of military nurses who have been deployed in a disaster environment. The first four themes of organized military culture address that aim.

Themes Within the Contextual Ground of Organized Military Culture

The themes that emerged against the contextual ground of organized military culture were "Nature of War," "Known," "Structured," "Prepared," and "Being Strong."

To facilitate their discussion of disaster, the participants often described their disaster experiences in contrast with what they knew best: experiences of the military and war. Several

began their narratives by observing that their experience of disaster response, when compared to their expectations of war, was simply "different."

> You know, you make sure that things are in place … and you do some, some mock drills and so forth and so on for the community disaster. Military participates in that. … But even though there is overlapping, there is a big difference. There is a huge difference [in disaster]. (Ellen)

In the structured environment of combat, nurses knew what their roles would be, approximately where the combat support hospital (CSH) would be situated or the ship would be harbored, or where they would land to evacuate the sick or injured military members. They knew to whom they would provide care, followed previously written policies and protocols, and had established logistical support within the combat area.

"Nature of War": This theme encompassed the participants' description of the differences between war and disaster and what combat itself actually represented. They spoke of expectations, the pace of the war, and other things they knew would happen.

One major difference between war and disaster that participants identified was the nature of the enemy. In war or combat, the enemy is a real person with a face or name, often with a recognizable uniform. In war, the soldier is fighting an equal. None of this is true in disaster, in which the enemy is a vague entity or nothing more than the aftermath of the event. Two participants discussed these differences.

> In conflict, you know who you have to be afraid of. (Robert)

> How do you confront an enemy that's already passed through and now is causing havoc in another state when you are focusing on the people in community? The [survivors] are not the enemy. (Ellen)

Another major difference noted by two participants was the contrast in expectations between war and disaster.

> There's a difference in expectations during war time. I had been to war. I knew what was expected then. … We knew what should be done and what our mission was. (Ellen)

> I had flown in a warring country … and you always expect that you are going to get shot at when you are flying contingency missions. (Doug)

For the following participant, the pace of actual war missions stood out as a major difference.

> In deployment for six months you may have 10 missions over the course of six months so the rest of the time you aren't doing much … or you are doing paperwork. (James)

Another participant noted the difference in organization between military warfare operations and disaster response. In warfare or combat missions, strategic operations have been planned and communicated to those participating in the mission.

> Military is geared for military operations and they do that well, very well. When we are over there [in the war], it's organized. (Alex)

When providing medical care in wartime field hospitals, military nurses follow standards similar to those of the Joint Commission on Accreditation of Hospital Organizations. Participants observed, however, that in disaster, no standards or precise plans can be counted on to apply. Participants had to hope that basic nursing skills would be enough.

> There's big differences … I guess you would say … [in war] you try to fall on Joint Commission standards somewhat … documenting what you do. (Cory)

> When you're first doing this [providing care in disasters], it's a little more seat-of-the-pants initially. (James)

The Military as "Known": In the theme of "Known," participants expressed what they knew about war and how to fight a war, which was substantial when compared to their knowledge of a disaster they were largely unprepared to confront. The participants referenced differences in levels of training, the mission, and their roles in a combat environment.

Two participants noted that their military training always focused on combat readiness; that narrow focus led to a lack of readiness in disaster response.

> [In war] we were given the training, so we knew what to expect … they told us [what war conditions were like] before we got there … you kind of knew what to expect. (Cory)

> Because of the nature of who we are [as military], there is more focus on preparing to go and being ready to go to war. (Ellen)

During wartime, military missions are centered on battle and engaging the enemy. In a catastrophic event, the focus is on providing care to the victims.

> You know … [in war you are] focused on conflict and fighting. (Robert)

On the battlefield, there are designated places to erect the field hospital and sleep tents. Soldiers and enemy prisoners of war receive care. Manifests are prepared in advance for patients being evacuated, and the location is known. Conversely, in disaster, sleeping areas are often unknown. The patients are the victims of disasters and are evacuated without any paperwork.

> [In a combat situation] you know where you are going to live. … You know who you are going to get [to evacuate], there is always a list of the patients that you are going to get [for transport for care]. (Tabitha)

The Military as "Structured": Within this theme, the participants discussed the organization and control characteristics of the military culture. The nurses described how the collaboration between the different military branches contributed to the organization of the mission.

In conflict, there are policies and procedures that are preplanned and must be followed when operating within the combat arena. These policies include security procedures, maintaining noise and light discipline at night (speaking in low voices and using red lens covers on flashlights), always moving in groups of two for accountability (buddy system), and wearing combat gear at all times. In disasters, strategic planning was absent due to the rapid response efforts.

> The war, it really is more structured … everything is kind of structured. (James)

> You wear your body armor and you have weapons and such but [war is] very controlled. (Tabitha)

Organization is apparent in the war zone. When evacuation is required, the different military entities collaborate and communicate efficiently to ensure that the wounded are processed appropriately through the military system. In contrast, efficient communication was lacking in the disaster arena.

> In the military, when we are over there [in a war zone], it's organized. They have people that tell you exactly … what you are getting … where you are moving them. (Alex)

Combat Is "Something We Had Prepared For": The military nurse participants illuminated how training and the presence of logistical support influenced their readiness for war.

> [Combat is] something we had prepared for … you are trained to take care of people who are in harm's way with the notion of getting them back in the field … [and] logistics are there and you are prepared. (Ellen)

> We were given the training so you kind of starting preparing yourself. (Cory)

The second aim of the study pertained to how the experiences may have affected the participants' lives. This was addressed in the theme of "Being Strong."

"Being Strong": The final theme within the contextual ground of organized military culture encompassed how the participants dealt with the emotional aspects of things they

witnessed in the line of duty. The nurses said people could not understand the emotional impact of events unless they were there. The military culture has a saying: “Suck it up, drive on.” This is a mindset used in coping when engaged in stressful events.

Members of the military are expected to demonstrate strength and perseverance in all aspects of their duty. Emotional endurance is included in that mindset. The narratives from the following two participants are a testament to those military expectations.

> [In the military] we are supposed to be the strong ones … [In combat], if you are involved in something where you can’t totally share everything that’s going on … you have to kind of keep some stuff inside that you can’t talk about … at the end [of the rotation] it becomes a little bit more difficult [to keep it inside; it builds up] because you [just] can’t share everything that goes on there. (Julie)

> I just suddenly felt terrible … And, and I wanted to cry. I had this lump in my throat and I couldn’t cry because I had all these people around and I was the commander … I have to be strong. I don’t think I consciously said, “Well, I have to be strong and do this.” I think I just did it. And then it would break through every so often. (Cynthia)

Similarly, another participant noted that when nurses witness things too difficult to mentally tolerate, they try to distance themselves from the task in order to cope.

> I guess the way we approach so many things in nursing [is] sometimes we do all we can to forget that that’s a human that we are working with just so we can cope with what we are doing. (Doug)

In traumatic circumstances, nurses must be cognizant of their own emotional welfare, lest the health care provider become a victim unable to function effectively to render needed care.

> I [was thinking that] I can't be emotional about this … it makes you dig down deep, quickly, because if not … you just melt down and you are no help to anyone at that point. (Tabitha)

Overview of Disaster Experiences

For the military nurse responding to a traumatic event, the environment was constantly evolving, and in response to these shifts, nursing roles changed often; this differed from the structured environment and predictable roles of combat deployments. In contrast to war, the quickness of response demanded by the disaster environment allowed little time for preparation. The participants described not knowing what to expect with the disasters versus the numerous hours spent training and preparing for combat.

> With disaster relief, we never had any training. There is no training or any kind of formalized training put together … to say … this is some things or tools you can put in your tool box to take with you or things that you might see. (Cory)

> Even though you think you have trained, you are never ready for those kinds of disasters … No matter how much you think you are prepared for Mother Nature to come in and knock you on the butt, you have no idea what you are dealing with. (Ellen)

Furthermore, logistical support normally provided during wartime was lacking during the disasters. Little disaster-specific information was available prior to disaster deployment. This

meant that nurses' anticipated or planned roles often shifted upon arrival at the scene. Participants reported that they frequently worked outside their scope of practice, assisting in clean-up details, constructing needed equipment, participating in morgue duty, and engaging in search and rescue missions to locate survivors. One commonality between combat and disaster noted by many of the nurses was that in both instances they worked long hours in an austere environment.

The nurses also noted other contrasts between war or combat and disaster. Nurses had to establish relationships with both civilian and military organizations for communication, health supplies, water, food, and other essentials required during the response. They frequently found themselves doing their best to "make do" within the different situations. At times, living conditions were even worse during the disaster deployment than in combat; this was sometimes due to the smells and potential health hazards resulting from the disaster.

On both functional and emotional levels, the disaster experiences touched study participants in many ways. In a practical way, the disaster response provided an opportunity to practice skills needed for future disaster responses or an upcoming combat deployment. Such skills included quickly packing the CSH in readiness for deployment, convoying from one location to another, erecting the CSH in an austere environment, swiftly relocating due to danger, mastering new disaster-specific skills, and learning to depend on their senses in providing care without the benefit of technology. One participant addressed two situations in which disaster deployment added to her combat readiness.

> We did all of the training on electronic medical record for a combat environment at the disaster site … we could practice and it helped us because when we used it in combat, everybody knew how to use it so we didn't have to do it there. We practiced … [setting] up the hospital. We had to do that in an austere site. So everybody had to do that to learn. We were very concerned about safety. We wanted to make sure people were doing it correctly and that we could get operational [within the appropriate time frame]. (Sharon)

On an emotional or psychological level, participants learned about themselves and the individuals who worked with them. Many of the nurses spoke of having a "growth experience," resulting in their becoming thankful and appreciative of things they had previously taken for granted. In some instances, the experience changed their thoughts on the harsh realities of society. These changes in perspective stemmed from witnessing the manner in which some individuals reacted following the disaster, such as vandalism and pilfering within the disaster area. Several participants stated that they were so involved in their own world (military culture) that they had forgotten how different the civilian world could be; therefore, the disaster response became a reality check. As a coping mechanism, they tried to shut off the things they heard, saw, and smelled, but several said that, eventually, "you [had] to feel" to deal with what was occurring. The nurses spoke of "battle buddies" as a safety and coping mechanism. This concept emerged from war-type involvements but was also applicable to disaster responses. The nurses were never alone and watched out for each other. The deployment team became very important. Frequently, at the beginning of the disaster deployments, the team members did not know one another, but they quickly became bonded as a coherent unit, aware of the significance of their newly constituted team. "They were all they had" to depend on during the traumatic events. They

became like a family as bonds were established. This family bond contributed to their psychological survival during their disaster experiences. Another essential element that affected the participants' disaster experiences was the impact of time of arrival into the disaster arena.

Themes within the Contextual Ground of Disaster Experiences

Within the contextual ground of disaster experiences, the themes of "Nature of Disaster," "Unknown," "Chaos," "Making Do," "Emotionality," and "Existential Growth" emerged.

This section relates to the experience of the military nurses within the disaster event. In contrast to the familiar surroundings of the military culture, the participants described events in an unknown territory, the disaster arena. They expressed how, in the chaotic environment, nothing was predictable. The structure they knew in the military culture was lacking or absent. As they ventured forward, they quickly found that basic nursing skills were important. They had to rely on their eyes and touch for much of their care because modern instruments of technology could not be used due to the lack of electricity. Adapting to the environment and becoming innovative in designing essential equipment provided the participants with skills that could potentially be used in a combat situation. As they learned together, they became a more cohesive unit, which served them well within the disaster arena. The first aim of the study is addressed by the first four themes of disaster experiences.

"Nature of Disaster": Expressed in this theme is the description of the type of support needed during a disaster response, the pace of response efforts, and the uniqueness of the situation. Within this theme, the participants continue to compare war with disaster.

In contrast to the slower, more predictable build-up and progression of combat deployments, the participants provided insight into their inner experience as they responded to the rapid onset and quick pace of the disaster response. The sense of urgency is apparent in their words.

> Disaster … is just so much more concentrated [than war]. In disaster, you are doing everything; every waking minute you are doing something that is valuable and interesting and has a beneficial effect to somebody … What actually stands out is (a) how quickly everything is done when there is a pressing need … It was quick … and (b) actually how good our exact disaster response [can be] when we have a driving need for it. You know what stands out; in a negative way, what stands out is how quickly Americans move when it is [in] their interest. (James)

> What stands out the most is getting there quickly. You don't have much time to really plan for a [disaster] deployment … you just get there quickly … I had to scramble to make sure I was packed and ready to go. So the first thing that comes to mind is getting there quickly. (Jackie)

> An overwhelming sense of, "Oh my God," the commander was like … "You are getting ready to go, you are on alert … Get ready, have your bags packed." … Our chief nurse said, "I don't know what you all are going into … but just be careful." (Tabitha)

> We had … very short notice … we had a few hours' notice and then we responded to the hospital … and within an hour we were on a plane and we flew directly into the disaster area. (Alex)

"Going into the Unknown": In the theme of "Unknown," the participants expressed the uncertainty of the disaster experience. Their stories illuminated the lack of preparation for the disaster and scarcity of information prior to deployment. The participants described the continual change that occurred during the response efforts. Frequently, through their words, I gained insight on the learning that occurred as they rendered care during the relief efforts.

> [When you first go into a disaster], you know, [you are] going into the unknown, not knowing what [you] were doing. (Lisa)

> When we first got there I didn't know what was going on … What do we do? Who do we talk to? … What's going on? What do y'all need? What's the deal? We really didn't understand the true impact of what was really going on. (Tabitha)

> We didn't know … if we were going to be providing medical care for the patients in route or if we were just going to be a vessel of transportation. (Heather)

> We really didn't have any idea what to expect going in because there was no real communications coming out of the city prior to arriving … Not knowing is always hard … There was a lot of not knowing. (Doug)

> Just sitting around wondering when the storm was going to come in … where it was going to end up showing up and if it was heading towards the city … Nobody knew much about anything. (Scott)

Three of the participants described uncertainty before and during the response efforts.

> There is a level of uncertainty. In [disaster], you don't know where people are. You don't know their names; the names are confused … you have an extra body and you don't know where it came from. (James)

> You didn't know. They said a hurricane was coming and it was going to have far-reaching … reaching damage … so extensive that it would be … in big proportions, so being in our branch we don't know what we are walking into; our theater is unknown until you get into it … The uncertainty … the need to put yourself in situations that you don't know what you may encounter … We didn't know how bad it was going to be until we were entrenched in the middle of it. (Jackie)

> We didn't know what we were going to get when we got there. We didn't know if the airport had been damaged in the hurricane. We didn't know if there was going to be electricity. We didn't know if we were going to have water, running water and stuff. (Stephanie)

Another element of the unknown was the constant change the participants endured while rendering aid, never knowing from one moment to the next where they would go or where they would sleep.

> Our mission was constantly evolving … we were mustering [received briefs] several times a day … we didn't know how bad it was or how good it was going to be [in the disaster area] until we were entrenched in the middle of it. (Jackie)

> You never knew, a lot of times, from one moment to the next, what you would be doing or where you would be stationed … Constantly being changed … we didn't know from one night to the next where we were going to sleep … we found out where we were supposed to be moment by moment … there was just a lack of awareness or lack of the immediate goal. (Bonnie)

A final factor of the unknown related to cultural diversity. Several participants alluded to the importance of understanding and working within unfamiliar cultures. Although all the participants who referred to the differences of culture responded to disaster events that occurred outside the United States, there is opportunity to encounter cultural differences within our own country. Failure to be aware of or respect cultural differences can hinder relief efforts.

> The absolute poverty … they live in … stick and stone and mud wattle houses … they are peasants … who cook with charcoal or wood inside the house … their hygiene is a little poor … it is an agrarian economy or bartering economy … the literacy rate is very poor … but fact is they do not know any difference … their outlook on life is phenomenally positive. (David)

> The nature of the country … it is a third-world country … wasn't a lot of infrastructure … you realize that health care … is dependent on the infrastructure of the country … you

> had to be aware of the political situation … you had to adjust to it … figure out what would work best for them [within their system]. (Robert)

> The country was a predominately Muslim country … their culture is so much different than the western culture … we have to respect that … we have to observe and make sure that we were sensitive to their culture and their religious needs. (Cameron)

"*Chaos":* The word "chaos" brings to mind a sense of confusion and disorganization. Merleau-Ponty (1945/1962) illuminates the phenomenological essence of chaos, stating, "Nature is *not* in itself geometrical … human society is *not* a community of reasonable minds" (p. 65). He observes that human experience causes us to reflect on the outcomes and meanings of historical chaotic events (Merleau-Ponty, 1945/1962).

Within the narratives, the participants often made comparisons to previous combat experiences to explain the chaos of the disasters. The expressions of the participants as they responded to the disasters reflect their initial reaction to the chaos, at times claiming the chaos in order to care for themselves and to provide the needed assistance. Interactions with the media influenced the level of chaos.

> Here [in the disaster], it was just like chaos. You are so used to structure and all of the sudden there is none … everything that you knew was right didn't exist anymore … all of the sudden that piece of the puzzle that's normally organized before you get there doesn't exist anymore. (Tabitha)

> There were ambulances everywhere. There were people everywhere. No one seemed to have a good grasp about what was going on. (Scott)

As participants entered the disaster area, there was a sense of shock at witnessing the number of people congregated in one place. The astonishment was compounded by the condition of the survivors. Many weapons were confiscated from among the disarray, producing feelings of unrest.

> It was pure chaos … you couldn't see space between the people … It was chaotic … there was a certain amount of chaos because of the medical triage that was going on and the treatment that was going on. That was chaotic in itself, then you throw in the chaos of looking down the stairs into the baggage claim area and seeing the thousands of people just wanting to be next and get their turn to get out. That just elevated exponentially the level of chaos that you could sense in the airport. (Doug)

> I don't know if I will ever forget going down that escalator … I saw patients and people everywhere … they were lying on the conveyor belt, some were on litters … some were just … flat on the floor without a litter. Patients sitting in wheelchairs … sitting on chairs, tons of elderly. Some had no clothing, some that had just a paper gown. (Stephanie)

> There were just thousands and thousands of people … people just everywhere … you could hardly even walk through because there were so many people … and then we got word that many of the people had weapons … many, many weapons were confiscated. (Debbie)

Another element of chaos is the destruction caused by the disasters. Debris was piled everywhere, and boats were on the highways, producing a sense of disorganization within the community. Nothing was where it belonged.

> To say it was a mess is an understatement … it was a mess … it was the biggest mess I've ever seen … it was very chaotic … the debris that was just all around … It was just this unbelievable destruction … all I see are these blue tarps on all these homes. (Ellen)

> There were boats on the freeway, boats where they shouldn't belong … on the canal … you could see the Coast Guard ships or other ships grounded into the levies just a mess … the mess [that was] caused by the storm. [In another disaster, following the earthquake] just looking at the damage that had been done in the building compared to what was done outside the building [was strange] … all the rooms were disheveled. We had four-man rooms with brakes locked on all the beds and all the beds were on one side. Seeing buildings halfway collapsed or crunched in … two buildings on each side had shifted down. We were on emergency power; however, we had enough light because of all the fires. (Henry)

The participants found the vandalism that ensued following the disaster unbelievable; specifically, the way society seemed to break down instead of pulling together after a devastating event. Participants described scenes of total degradation.

> I remember … we walked into the convention center and the payphones were ripped off the walls and everything was just very vandalized … I remember seeing a wooden pallet … full of baby formula … and it was stacked probably three feet tall and some of the

> canisters … people had used them but they had just torn into them … like some … wild animal had gotten into them. It was just like a total disregard for … just everyday society rules … down the road from the convention center there was a police car that was parked there … all the tires were missing on it…They had taken all the tires off of it. (Cory)

> There were still piles of feces in the corners and if you went up on the second floor … the carpet was saturated with urine in places and people had just urinated in the corners and pooped wherever they wanted to … and there were a couple of … dead bodies up on the higher levels of the building that hadn't been evacuated out yet. (Lisa)

> We packed the hospital and … moved it downtown to the convention center … which previously had been used as a refugee site and clearly served a purpose as a holding area. However, it was a complete disaster area with regard to litter … exposed food … waste … trash and broken glass … it was just a mess down there because it had taken not only the brunt of the hurricane but it had taken the brunt of the refugee action. (Sharon)

"Making Do": The participants related the many innovative ways they created to care for the patients, from doing what they could even if it was merely holding a hand or listening to a story to designing a piece of equipment they did not possess. Of particular interest were the different methods developed to transport the patients out of airports for evacuation. The participants even described methods they used to wash their own clothing and other personal issues.

Upon entering the disaster zone, the military nurses' first thoughts focused on what they could do to aid the victims of the disasters. They spoke of being innovative and provided

examples of the creative ways they made things work when the routine equipment was not available.

> [In the disaster], a lot of the inventions came because of the military; [we are innovative] because of our missions … [we are always] using our creative minds and helping out the other people … the Navy Seabees built some homemade crutches for us to use for our patients … we used our plastic covers [from our supply packing] to make isolation rooms … sealing them off [with duct tape] … for traction devices … we used filled five-gallon water jugs and bottles of betadine … just different … creative ways on how to meet the intent … without the exact equipment. (Cameron)

> People who worked in the clinic there had pulled omni cells out and put them on the back of a golf cart … kicked the doors open to get to the stuff out. (Dennis)

Two nurses described how they used what was at hand in the airports to transport patients to the aircraft. Because of the lack of electricity following the storm, conventional methods were not available.

> We had to figure out a way to get the patients down … to the plane so [we used] the little trucks that you see that have the conveyor belts, that they actually put the baggage on and it takes it up to the plane. We put [one] at the end of the gateway … it wasn't fully safe probably … we would have to walk with a four-person carry [one person on each corner] with the litter down … the little conveyor belt … we would load them across the baggage … that have the shelf kinda look to them, [they] were perfectly set for a litter that we would stabilize … four patients on one and then we would have like a chain … We …

> [linked] those baggage carts up like a train … we would have like three … carts behind the little … I mean the engine if you would call it that with the driver and then we would pull the patients out there and then take them off one at a time and load them onto the plane. (Stephanie)

> [I said], "What we are going to do is we are going to take these baggage carts, these little tug carts and we are going to load the litters on there and drive them to the plane and we won't say a word" … and they are like, "Okay." That's all we've got. (Tabitha)

Sometimes the simplest, most mundane piece of equipment can be of assistance in a life-saving measure.

> [On] the first planeload that came out of the airport … there were 32 pregnant ladies … One had actually delivered in the stairwell at the airport by flashlight. (Christina)

The final two themes, "Emotionality" and "Existential Growth," relate to the second aim of the study regarding how the experiences affected the participants' lives.

"Emotionality": The participants experienced a wide variety of emotions during their disaster response. It was not surprising to hear them express feelings of anger regarding incidents that occurred.

According to one participant, someone who has no reaction to a disaster event might have personal problems that should be addressed.

> If it doesn't touch you, something of that magnitude, then you've probably got some other problems as far as I'm concerned. (Dennis)

During disaster relief, the responders had little time to relax and regroup. Many participants said they worked 12- to 16-hour days with little time for rest or sleep. There was no privacy. Frequently, they slept near where their colleagues provided care. The noise of the sick, the processing of evacuees, and the sounds of aircraft prevented peaceful respite. Listening to the stories of the victims, witnessing the devastation wrought by the disasters, and realizing the total destruction of individual lives exhausted the participants mentally. Negative reports by the media compounded their mental anguish. Once they returned home, fatigue and exhaustion set in.

> Just after returning, you are so tired and fatigued and exhausted, mentally and physically … during the deployment was the camaraderie, how everybody just banded together to do what [they] needed to. I think a mix of emotions, from the enjoyment of actually … helping the people … to the frustrations of the media and how they reported. (Bonnie)

Being alone in a new environment produces some anxiety, but to have your world literally begin moving and shaking around you causes more than anxiety. Fear is what stood out to one participant as she sought answers to her questions and provided care for those who were injured.

> The biggest thing that sticks out in my mind is my own fear. … because I was raised somewhere where there are no earthquakes … I had no idea what had happened … the floors started shaking and pounding … so I ran out onto the balcony and I thought, "Oh no, if this building collapses I'm going to be outside" … I ran into the stairwell …

> banging on the door of some fellow service members … I said, "What just happened? What just happened?" They said, "That was an earthquake." (Christina)

At some point in everyone's life, disastrous events viewed on the television have sparked some sort of emotion. Nevertheless, according to the participants, people cannot truly understand the significance of an event they did not witness firsthand. Unless an individual has witnessed devastation of such magnitude, it is impossible to comprehend the outcome.

> I don't think any of us understands [a disaster] unless we have lived through it. I don't think any of us understands the impact of such a catastrophic disaster on the people who actually have to go back to it or lived through it … you see bits and pieces of it … you are very much affected by it … you think you understand, but I don't think you understand … but until you have actually seen it you have no idea … You don't know how you are going to react … In your head you think you know but in your heart you don't know. You don't know until you are down there and you are engaged in it, in their lives, what it's all about. (Ellen)

> You try to tell [people] of the experiences that you have … they don't have any perspective on the things that you have experienced … they are so sheltered in things … You hear about like the typhoons that hit … but to actually be there … seeing it [disaster] … you know, what it's really like [you] just can't even imagine. (Nancy)

> You know, you go down there and until you see with your own eyes what these people are dealing with and the devastation that something like this causes … it was just mind-

> boggling to see how the flood waters had just washed away bridges, entire communities. (David)

The emotional pain the participants expressed was vivid on their faces as they talked to me. Tears slid down, and they would pause and then continue with their stories. These interviews took place several years after their disaster deployments, but the pain was still fresh.

> Even though you weren't a full-time component of that community … you *were* a component of that community … when you are on active duty, you became a part of that community … feeling the pain … the level of discomfort … that's like your family is experiencing stuff. (Ellen)

> [The emotion] it kinda hits you like a rock. (Julie)

> Well, even just riding in the back of the truck over there [in the disaster neighborhoods] it was overwhelming. That just was like somebody had stabbed me. (Cynthia)

Participants described the intensity of the emotions felt while actually in the disaster situation, seeing the catastrophes as they unfolded, and feeling the fear of the situation, then reflecting back on the disasters after they had passed.

> But it was just the intensity of the hurricane … hearing what was going on around the country [we were in] … landslides and mudslides and whole villages being washed away, it was pretty overwhelming to be right there in the middle of it … It was pretty overwhelming to be right there in the middle watching all that was happening … people, just whole villages, sliding down and being washed away. (Nancy)

> That was the biggest … that was probably one of the scariest things I've ever been through, ever … it was rather overwhelming at first … then my big fear is, they don't know me from anybody … I really felt I was going to get left in the city. The second storm was coming in … the lake is right there on the coast and this little airport is right there … it was right there on the water … planes on the ground … still loading patients … thinking they were going to leave me, because they did not know me … are they going to leave me? (Debbie)

> [As the storm clouds were gathering], I remember working on the exit of the plane thinking, "I don't want to be on this plane right now. This is not a good situation." (Alex)

One participant was astounded to witness guards with weapons in a disaster environment in the United States.

> There were guards with shotguns and bandoliers and it was just a truly surreal experience … had we been in a foreign country it probably would not have impacted me nearly as much but the fact that it was in the United States city, I think really just kind of blew me away. (Doug)

One participant mentioned that, after having been in more than one disaster, she had emotional scars; however, the experience also brought her reassurance. She had survived the disaster but would always have the memories.

> I think it does, [the disaster event] it scars you, emotionally … having been through one and then another … I think we felt a little more, I felt a little more assured because I had

> experienced it [the second time] … that which I hadn't ever experienced before. (Christina)

One participant described the smell in the air and the odors that lingered on his uniform for days after he rendered aid to the victims of the Pentagon attack. The smells on his clothing actually helped him to cope with the memories of the disaster. He was angry at the attackers who caused the pain and destruction he witnessed.

> The jet fuel that hit the building had burned … everything has a smell when it burns … if you worked in enough emergency rooms you know how human flesh smells when it burns … the smell of the human flesh, the jet fuel … you could smell the jet fuel in the air … where it had … gone over everything. I remember that smell … I got home, I didn't even wash that uniform for a couple of days because I needed to see that memory. I put it in a bag … I'd smell it every once in a while and think about it because **I was angry** … so I would smell it and stick it back away and go back to work the next day. (Dennis)

Even though many participants expressed sad or negative reactions to the disaster response, several participants also verbalized positive thoughts regarding the outcome of their efforts. Two participants described the disaster experience as meaningful and probably one of the best experiences of their lives.

> This is probably the best work I've done because it seemed like the most meaningful at the time, had the biggest impact … I kind of feel like that's the best work I've done in my career. (James)

That experience was probably one of the best experiences in my life. (Cameron)

One participant described how seeing the immediate results of helping people allowed her to persevere when she was exhausted. She could witness a positive outcome as she worked.

> You just keep going I think because you … you knew that you were doing something good. You knew you were helping and you could see the immediate relief in that. (Bonnie)

Two participants described how the experience of relief efforts made them feel, how everyone came together during the time of the response, and the bond that was maintained after the deployment was completed.

> You kind of got a tingly feeling that … Yeah, this is happening in our country but look how we are all coming together to pull this off. (Doug)

> I shall always feel the kinship with … that community. (Cynthia)

As a subset of emotionality, references were made to coping mechanisms and dealing with traumatic events. Coping was sustained through the associations with participants' team members. The disasters brought them together, cementing a bond that many participants said still existed years after the disaster deployments. They looked out for one another, ensuring all were managing the hardships they experienced and the catastrophic episodes they witnessed.

Three participants said that all they had to depend on during stressful times was one another. Military members are accustomed to leaning on one another when they are separated from their family and significant others. They become a surrogate family during trying times.

> The only thing you've got is each other. Whatever books you had you shared … you created a library and shared … you learned to rely on each other. Not just clinically but socially. You learned how to communicate without … having to talk. You learned to read each other to figure out who was tired; who needed a break … a lot of us still keep in touch. (Robert)

> You build a team … you have a closer knit group of people … you gain a better respect for one another … you have to depend on each other … you are your own support group … we had a little reunion … we all met up … even 10 years later … that's what we talked about [the disaster] … what we did … but we just had that bond. (Nancy)

> On a deployment … you develop camaraderie, a kinship … the camaraderie and the kinship is integral and key to preventing … any kind of issues of a behavioral health nature. Camaraderie, kinship, togetherness, feeling united by a common goal … can help you survive that event emotionally … It's a bonding … you bond together … that bonding is protective mechanism. If someone is having a bad day … we can see it in a heartbeat. … that open banter … is prophylactic in nature … so we all became amateur combat stress control people in a manner of speaking … based on the nature of our team … we were all we had … it was … a survival mechanism. (David)

The military has a saying that “there is no ’I’ in team.” The words of the following participant support that philosophy.

> I really felt a camaraderie. We were like a big family … you cannot do what you do alone … you learn the team effort … helping the people … helping your own people … you have to have the team … everyone has a specialty … everybody pitches in and has a piece of the pie. You can’t make the pie complete without each other … the team helping you and encouraging you keeps you going. (Stephanie)

To remain functional, the nurses had to look out for themselves and their team members. Sharing the experience with one another helped them to deal with it.

> [There was] tremendous benefit [from] verbalizing your feelings and collaborating with those that have gone through the disaster with [you] … because no one else has lived through what you all have lived through together … validating each other’s feelings … surrounding ourselves with each other … we saw so much trauma … that you have to take care of yourself … that is how we dealt with it … came together … locked arms … we would spend time just talking about our feelings and our memories. (Christina)

One participant shared her experience with her family and friends in her neighborhood.

> I dealt with it by coming back home and talking about it … I talked to my husband … talked to my neighbors … I would share … tell them about what I saw … talked about what you saw because … you just want to repeat it back … and a common response …

> "Well, I've given money toward disaster relief … I'm sharing your pain by giving some money" … what can you say … you just talk about it … and just shake your head. (Ellen)

"Existential Growth": As the participants reexamined their thoughts regarding their experiences and the outcomes of the disasters, they realized that they had grown as a result of their efforts; they had reached a higher level of transcendence. As indicated by their words, they gained insight into the bigger picture of life; they stepped out of themselves and viewed the events and the outcomes of the disaster through a new lens of being in the world.

The disasters to which they responded caused several of the participants to reassess their previous thoughts on life. They came away with a new appreciation for themselves and the lives of others.

> It kind of reshaped my thinking about catastrophic events … until you see the big picture, you don't appreciate it … it is a very enlightening experience … it is a very gut-wrenching experience in appreciation … appreciation of how people's lives can just be simply, totally … disrupted … sometimes we think we have experienced everything, but by the grace of God go I. (Ellen)

> Seeing something like that [disaster], you gain a different attitude … I think the experience just makes you a better person. (Nancy)

> I think everybody came back from the experience grateful for what we do have. (Robert).

> You can't appreciate what you had until you see what people don't have. (David)

Realizing that they were just a very small entity in a much larger picture caused these responders to rethink their positions in the greater scheme of life.

> My God, this thing is huge and bigger than my little part that I am trying to attend to and help out with. (Ellen)

> Dude, you are a small piece in how big the stuff is. (Dennis)

> Me and my little ol' mission … it built my self confidence … that was a personal gain for me. (Heather)

"Feeling blessed" described the growth experienced by this participant. However, she also thought about the people of the disaster, wondering about the changes in their lives.

> But to lose everything is a tough pill to swallow … [I] feel fortunate, I feel blessed. I feel, "How can there be justice in situations like this?" … I think, "Where they are [the victims], in life or in heaven?" or "How are they thinking, how are they doing … Has their life gotten worse or has it gotten better?" … One thing is to me that I value life. (Jackie)

Another participant expressed a greater awareness of the world. She grew in her understanding of people and said she did not want to lose what was gained during the disaster response.

> I came away with a lot more … awareness of what goes on out there. As I think about this experience, it's been almost three years ago … whatever I experienced three years

> ago [I hope] continues to stay with me … to improve how I … look at other people and not to be judgmental and to take people for who they are and understand the situation where they are coming from. (Julia)

From her experience, Christina achieved a greater appreciation for her role as a nurse, doing something for the greater good of humanity. She knew she had made a difference and was proud of what she accomplished.

> [I gained] more appreciation for what [we] are doing … basically as a human being to know that you are doing something for the greater good. (Christina)

Dennis realized that life experiences afford opportunities at some of the gravest of times.

> So it was like the gravity of the situation of having to be Johnny-on-the-spot, right time, right place, and being out into a position because what you experienced … I'd say it's life … life experience … [disaster is] an experience of life. (Dennis)

One participant described her existential growth as "a gut-check on reality." She came away from her disaster experience with the realization that one person cannot always control everything that occurs.

> It was a gut-check on reality … not everybody has your beliefs … not everybody thinks the way you do … you can get wrapped up in your own world … but you've got to realize that this really is a strange world that we live in … you can only control what you can control … you've got to realize not everybody looks at things the same way you do. (Tabitha)

The participants came to an understanding of the effect the disasters had on their victims. Participants described how taking on some of the emotional burden of the victims changed their lives.

> That's what was disturbed … the most disturbing aspect I think came through in dealing … with people I encountered is their sense of well-being was gone … My sense of my life was gone. (Ellen)

> To see the disbelief on people … just how their whole lives changed … it took a toll a little bit [on us] … to see how lives were disrupted or torn apart … it was just a huge loss of their lifestyle and everything that mattered to them. (Cory)

In reflecting on their disaster experience, these participants reported a change that left them questioning how to relate to those who had not experienced or witnessed the things they had.

> Who do you find a common purpose with? (Robert)

> Poof, we are back … transported back … expected to go on with our life … to go on with life [when] … no one else has experienced that you have experienced … how do we all really deal [with it]? (Christina).

During their individual experiences, the participants learned valuable lessons that would benefit them in the future.

> If I'm ever the guy who has to pull the trigger, or execute something like this [disaster relief], I kinda learned to manage human resources up front, manpower resources. From the very beginning start managing it, and start managing your other resources. No matter how miniscule or how much surplus it seems like you have. (Dennis)

> Reliving the earthquake, having the aftershocks but then also not knowing [what it was] … was that an earthquake? … [and] learning what I was supposed to do the next time. (Christina)

Other Significant Finding

Another finding was that dealing with the media influenced the nurses' disaster experiences. The media coverage caused frustration and anger and delayed the nurses' relief efforts, adding to the chaos that ensued. Even though they were working as expertly and quickly as they could, the participants heard numerous accounts on news broadcasts that caused emotional turmoil.

The negative news reports affected the participants, who were working diligently to provide the best care possible. They worked long, hard hours in an austere environment away from their families providing care for the victims, yet they were portrayed as uncaring. The participants said the media personnel were biased, that reports often caused the crowd of survivors to become upset, and that the media rarely mentioned the positive aspects of the care provided.

It was just amazing how the media … just gave such a negative perception of the government and that we were not doing anything … there was such a broad range of emotions and perspectives and memories from it. I didn't care to watch the news or anything because you are there. You are in it [the disaster] … [the media said] the government hadn't acted, President Bush did or didn't do things. That was infuriating because … it couldn't have been further from the truth. It was huge misrepresentation of the actual events. We were working as hard and as quickly as we could, but we were portrayed as being slow and uncaring. Due to safety issues, we had to search the victims' bags that contained their belongings looking for weapons and drugs before they could enter the shelters. The media is biased. I really think that it discredited all of the good things that the government was doing. (Bonnie)

Listening to the news … was very upsetting because of how the media portrayed that we wouldn't go in and help. … knowing that when we did send military aircraft in that people were shooting at them. (Christina)

The media … [this one broadcast star] was there … and about every hour or so he … would start broadcasting … and the crowd would get a little riled up … I understand the sensationalism of media … [but] he never showed too much of our medical tent that we had set up … and what we were doing to help … they just want to focus on the negativity … it kind of made me feel like … that America wants to see … the negativity of something versus what's positive … But with the disaster relief effort it was all about how poorly the government was handling everything … when it's government related the

> media likes to … portray a lot of negativity and there's a lot of [good] … I could see on the ground what the positive things were that the government was trying to do. (Cory)

Patient privacy became an issue as the media arrived to film the care being provided during one disaster response. One participant became distraught as she tried to explain to a reporter what was happening. The interaction left her with a negative impression. She compared her reactions to the media in the disaster arena and the media in the war zone.

> I was trying to give the gentleman a urinal … I was holding a blanket up to guard him … to give the patient privacy … the media … they wanted to film us actually working … I told him twice or three times to get out, to give the patient privacy … that really became upsetting … frustrating. He evidently wasn't going to listen … he would move for a second and just get another angle … but he was still trying to go around. I guess reliving it and talking about it … the frustrations comes out again. When I was deployed [in the war] … [One broadcasting agency] did a report on how the system works, how we take patients from the point of entry all the way back to the military bases and my experiences was totally fine. They were very complimentary of us. They stayed out [of] our way. (Stephanie)

Two participants expressed the negative impact that dignitaries and the media had on their efforts to get patients in and out of the disaster area in timely manner. The participants' days were difficult enough without the added stress. They merely wanted to finish loading the patients so they could be evacuated and the nurses could rest. The dignitaries did not understand that their visiting the victims actually hindered the disaster response efforts.

> We were still actively loading patients … a couple of days into our mission these big VIPs were coming through … with his crew … even a former U.S. vice president was there … he walked through the airport and through our area … and these big VIPs came down while I was actively … loading a plane and his entourage was huge. There were people all around him … his entourage came right through my loading area and my people couldn't get through. I literally told them to get out of the way … "Move it!" and I was yelling because there were so many people … "Move out of the way! I don't care who you are … but I want you to move out of the way because I need to get these patients on the plane. The plane has to get out of here!" (Stephanie)

> [When] several bigwigs came in to survey the damage … everything comes to a stop. It comes to a standstill. We have thousands of patients we are trying to air evac out of the airport, yet the planes had to come to complete standstill … .not only the planes, we were getting helicopters bringing people in … a constant revolving … all these people coming in … [all the] patients leaving came to a standstill … we went hours without being able to do our jobs … huge frustration … we are trying to get our jobs done and there's that whole gaggle of people … yet we were trying to work around … get our work done just because we were so exhausted. (Debbie)

Of particular note, one participant reported a positive interaction with the media at his disaster site. However, he was in a different situation, providing surgical care and support in a field hospital, in contrast to the previous participants, who were in airports trying to move

patients. He continued his bedside care or spoke to the news reporters between patient care procedures.

> We did have a lot of media attention … [all the major networks] were there, we had several celebrities that came to visit us … former vice president, former defense secretary was there, a whole bunch of general officers and politicians, congressmen and U.S. representatives. They came to visit our hospital … we continued operations. We were doing recovery on post-operative patients while we had media there … we just keep working. If we had time, we would talk to them, but if somebody with an emergency needed help then we have to deal with those … really it did not affect our operations … it was pretty exciting. (Cameron)

Limitations

There were several limitations to the study: (1) only U.S. military nurses were included, (2) news reports of disasters during and following their responses could have influenced the nurses' stories, and (3) concern for maintaining confidentiality of specific actions may have shaped the information provided in their stories.

Summary

The purpose of this study was to gain an understanding of the essence of military nurses' experiences in responding to disasters and how the experience may have affected their lives. The question developed to acquire that understanding was "What is the experience of the military nurse during and/or following a disaster response?" To answer the research question, 23 military

nurses from the Army, Air Force, Navy, and U.S. Public Health Service were interviewed following the phenomenological process of Thomas and Pollio (2002) and based on the existential phenomenology of Merleau-Ponty (1945/1962).

Regardless of the disaster event, military branch, or individual rank of participants, no differences were found in their responses. Using hermeneutic analyses, five polar themes emerged against the two contextual grounds of organized military culture and disaster experience: “Nature of War” versus “Nature of Disaster”; “Known” versus “Unknown”; “Prepared” versus “Chaos”; “Structured” versus “Making Do”; and “Being Strong” versus “Emotionality.” A final theme of “Existential Growth” emerged as participants reflected on their experiences and described how the deployments affected their lives. Figure 1 illustrated the two contextual grounds and themes.

CONCLUSIONS AND IMPLICATIONS

Conclusions

Two major theories had particular relevance to disaster response and the specific aims of the study: Maslow's Hierarchy of Needs (1943) and Nightingale's Theory of Nursing (1860/1969).

Maslow's Hierarchy of Needs

According to Maslow (1943), there are five levels of basic needs: psychological, safety, love/belonging, esteem, and self-actualization. Findings from this research study are consistent with these needs. The participants described how they collaborated with other disaster relief organizations to obtain food and water. Previous work in the literature also supports these findings. Zamarripa (2003) found that the military and civilians needed to collaborate during disasters to secure sanitation, food, and housing.

Findings in the current study also support issues related to safety and security, the second level of needs identified by Maslow. Participants Debbie and Bonnie spoke of weapons confiscated from disaster victims and vandalism in the affected communities. Several other participants described using the buddy system to increase their safety within the area of devastation. Information regarding safety and security during disasters appears in the literature. In their 2007 study, Rogers and Lawhorn noted that surveillance and adequate security are essential during disaster responses.

Love, affection, and belonging are addressed in Maslow's third level. Numerous examples in the findings demonstrate the need for belonging. For example, participants talked about how leaning on one another helped them get through difficult days. David mentioned that banding together and talking to his colleagues in the tent at night decreased the stress and anxiety he was experiencing. Another nurse said she and several disaster response nurses "just linked arms" as a sense of togetherness against the difficult times. Robert stated, "The only thing you've got is each other." He said the team members were so close that they could communicate without talking. In all of these stories, the essential need for connectedness was validated many times.

Esteem is the focus in the fourth level of Maslow's hierarchy. Although the participants in this research described the disaster experience as good and said they would serve again if needed, they also said the disaster relief efforts were frustrating and wished they could have done more. On numerous occasions, the participants found that their self-esteem needs were not supported by their work.

The final level of need in the theory is self-actualization, a state of being in which an individual feels that he or she is fulfilling life's purpose. The participants were working in a field they selected, the field of nursing. They were doing what they felt was important in their lives, rendering care to individuals who were sick or injured. However, during disaster responses, participants were constrained in their ability to provide the quality of care they were accustomed to in military health facilities. They had to provide the best care they could with the supplies and equipment that were available. Therefore, many of the nurses felt their care was lacking. The

major theme of "Existential Growth" directly addresses the achievement of self-actualization. Despite their professional frustrations, participants felt they gained valuable appreciation for their role in the grand scheme of life.

Nightingale's Theory of Nursing

The second theory identified as applicable to disaster response is Nightingale's Theory of Nursing (1860/1969). Although Whall, YunHee, and Colling (1999) describe her theory as limited and "simplistic and outdated" (p. 319), the present research indicates that Nightingale's theory applies well to preparation and training of military nurses for disaster response. Her concepts of nursing originated in a chaotic arena, the Crimean War. Her tenets of nursing focused on establishing a safe environment in which to provide nursing care. She also identified ingenuity and perseverance as qualities of a good nurse. Finally, Nightingale opined that nurses must possess the "habit of observation."

Nightingale asserted that the concepts of health, water, efficient drainage, cleanliness, light, and noise are essential in nursing. Even though she did not label these concepts as environmental concerns, they are elements that surround individuals. The findings of the study support this notion. Debbie and Sharon mentioned that the nurses worked within the same area where they slept; therefore, they had no reprieve from the noise and chaos that surrounded them. Lisa and Henry related how the smells of rotting meat, urine, and feces were all around them where they worked and lived. Lisa even mentioned there were bodies that had not been removed several weeks into the response efforts. Cameron spoke of the total devastation of the area and

said society as a whole had broken down. He described the trash in the area, phones ripped off the walls, and other health hazards.

Participants told stories of giving care that reflected the core elements of Nightingale's theory. Throughout the narratives, they described the care rendered during disaster relief as a "bare-bones operation" and said they had to use basic nursing skills to provide care because of the lack of electricity, modern equipment, and supplies. Participants described providing care that was primitive, returning to skills mastered early in their educational experience, and out of necessity, relying only on what they saw, heard, smelled, and felt. This reliance on the most basic skills and interventions is what makes Nightingale's theory so applicable to disaster nursing.

Crisis Communication and Disaster Response

During any disastrous event, effective crisis communication is essential. Unfortunately, communication disruptions and failures are an inescapable component of crisis, most often attributable to the chaos that ensues following the precipitating event (Sonnier, 2009). Wang, Sava, Sample, and Jordan (2005) examined the medical response to the attack on the Pentagon, noting the lack of emergency communication capability between the numerous treatment facilities. They recommended developing more efficient and reliable methods of information transfer during calamity. Likewise, emergency responders and county officials conducted an Arlington County after-action review (2001) of their response to the terrorist attack on the Pentagon. Communication between the disaster area and local emergency responders was inadequate. Even though the crisis was a daunting experience for all, valuable information was

generated that established a need for a more effective disaster plan. Hays (1999) indicated in his AAR that communication was needed before and during disaster responses to facilitate relief efforts.

The findings of the present study agree with those of the previous literature. The participants said a lack of communication led to disorganization and hindered disaster response efforts. Tabitha described how she was deployed into the disaster arena without her command's having any information about her disaster role or who she needed to contact upon arrival. Another nurse said his team had no idea what to expect concerning the disaster because no communication was coming out of the city prior to their deployment.

Other communication concerns highlighted by the findings of this research relate to the news media. The participants said media reporting caused mental anguish among the disaster responders. They emphasized that the negative reports discredited the positive things that were being done. Bonnie mentioned that the nurses were working as hard and quickly as they could, but the media described them as slow and uncaring. One nurse said that a media broadcaster caused the crowd to become unruly with his news broadcast. A third nurse spoke of how she refrained from watching the news, because she was engulfed in the disaster, and hearing the negative news reports increased her stress and anxiety.

Another example of communication issues is difficulties with the media and patient care. Stephanie said media personnel refused to respect patient privacy during disaster responses. As she assisted an elderly man with a urinal, a reporter was trying to take photos. She tried to

provide a barrier for privacy, but the reporter persisted by trying to take pictures from a different angle.

Two nurses spoke of difficulties with visiting dignitaries and the news media. As high-ranking officials entered the disaster sites with their entourages, reporters would stop them for interviews. Often, this took place in the middle of evacuation areas. One nurse tried to get the groups to move, but they remained. This lack of cooperation slowed the loading of the patients for evacuation. Another nurse described how everything came to a standstill because of dignitaries' presence. She mentioned that the nurse responders lost hours of valuable time in loading and evacuating patients, which increased their frustration. As supported by the narratives of this study, communication concerns were multifaceted. There were large-scale problems that affected public opinion and small-scale issues that impeded the relief efforts of the military nurse participants.

Existential Phenomenology

According to Thomas and Pollio (2002), existential phenomenology creates a meticulous and distinct depiction of the human experience, which includes the elements of others, time, space, and body. Merleau-Ponty (1945/1962) stated that "phenomenology is the study of essence … a philosophy for which the world is always 'already there' before reflection begins … it also offers an account of space, time and the world as we 'live them'" (p. v11). The findings of the current study support the four elements of others, time, space, and body.

The world of "others" was the strongest of the four elements documented in the study findings. The participants described how they formed relationships with the community for

water, food, and sanitation. They described working with and listening to the disaster victims as they provided care and prepared them for evacuation. Nearly all the participants said the relationships between the team members evolved into a secondary family during the relief efforts.

Yalom's Existential World Views

Another existential philosopher whose works have bearing on the experiences of military nurses in disaster response is Irvin Yalom (1980). He stresses that life is a struggle, which arises from an individual's encounters with particular unavoidable issues. Yalom defines existentialism as focused on four ultimate concerns of life: death, freedom, existential isolation, and meaninglessness.

Findings of this study reflect the four ultimate concerns of life, most strongly in relation to the theme of "existential growth." Yalom states that to exist means to stand out and that "growth is a process of separation, of becoming a separate being" (p. 361). In this research, as the participants reflected on their experiences, they said that the relief efforts had touched their lives and they would gladly respond again. The participants came away from their disaster responses with a greater appreciation for their position in the world as individuals and as professional nurses. They described how grateful they were for what they had and how small their individual piece in the disaster response was compared to the disaster itself. However, several participants realized how important the collective response efforts were to the thousands of victims they aided. Some observed that in the gravest of times, life experiences offer opportunities that may never occur again. They gained valuable lessons that will benefit them in

future endeavors. Many of the participants have “become”; they have transcended; they have achieved existential growth.

Implications for Nursing

The findings of this study strongly suggest recommendations for education, practice, training, and policy. These recommendations are applicable to both civilian and military nurses who respond to disasters and to all levels of nursing education.

Education

Neal (1963) described the need for disaster education to be added to nursing curricula. This need has been recognized in the literature, but very few colleges and universities have incorporated disaster awareness and response courses into their curricula. Findings of this study support the addition of disaster response courses to nursing curricula. Several participants mentioned problems with coordination in disasters. Although they did not request specific disaster courses, the FEMA courses regarding incident command would be beneficial, as would working with non-governmental agencies. One of the nurses mentioned the problems with hazardous materials in the disaster area. Information relating to this type of health concern would be applicable for future education consideration.

Adding disaster courses to undergraduate nursing curricula would benefit both civilian and military nurses. The courses should include information about crisis communication and dealing with the media, which was a concern noted in the study findings. Because the military branches utilize civilian-trained nurses in their corps, disaster preparedness courses would

enhance military response efforts. Likewise, civilian nurses could potentially be involved in disasters. Often, as noted in the study, military and civilian nurses must collaborate to facilitate an effective response. If nurses receive disaster education in their basic nursing courses, relief efforts could be more fluid in the future.

Higher education levels need to develop a full curriculum that culminates in a disaster response concentration. This concentration would be particularly beneficial to public health nurses and the military. To my knowledge, the homeland security course of study offered at the University of Tennessee, Knoxville, is the only one of its kind. Unfortunately, the course is subject to grant funding and not a permanent course sustained by the university. Military and civilian nurses alike would benefit from a permanent course whose viability was assured at the university level.

Practice

The needs of nursing practice are similar to the education needs mentioned in the previous section. However, nursing practice refers to the application of skills learned in academia. As noted in the study, military nurses were concerned about being able to apply their skills in the real world. According to Dossey, Selanders, Beck, and Attewell (2005), Nightingale warned about the danger of learning merely through books. She indicated that book learning may be forgotten, but applying knowledge in the field causes the information to linger. Therefore, communities need to practice disaster scenarios often, not just within their own facilities, but also through integration of numerous disaster assets.

Information garnered from the literature suggested that military and civilian health care providers need to collaborate, share experiences, and practice together, which was supported by the findings of this study. One of the participants said making contacts in the civilian community supplemented their supplies and equipment, but military acronyms caused confusion in communication. Another nurse described how a physician expended too many supplies and needless time on an individual the military would have placed in an expectant category. These two examples demonstrate the importance of combined disaster drills. In catastrophic events, military and civilian nurses must join forces to provide care to the community. Practicing together will engender an understanding of language and disaster skills and form cohesive teams to function seamlessly when the need arises.

Training

Currently, the military does not offer courses on disaster response. Its main training focus remains on combat skills. Although this study did not specifically research combat experiences, its findings indicated that a few skills designated as combat training were applicable to disaster response, such as triage, erecting the field hospital, and providing public health assistance. However, the study supports the compelling need for greatly expanded and disaster-specific response training to be incorporated into military basic and advanced officer courses. Courses such as Basic Disaster Life Support™ and Advanced Disaster Life Support™ would complement the trauma nursing care course (TNCC) currently offered. Situational analysis and vulnerability assessment courses would be beneficial for disaster deployments.

Similarly, disaster education is not typically included as part of basic nursing preparation. Instead, if it is offered at all, it consists of a few brief lectures without any disaster-specific clinical component. It is the rank and file—nurses both military and civilian—who comprise the majority of disaster team nurses. Without adequate disaster education and skills training, these professionals will be hindered in their capacity to render care and meet essential survival needs during traumatic events. Possession of this specialized education should be a requirement for practical and registered nurse licensure.

Policy

According to a conversation with the chief nurse of the U.S. Army Medical Department (AMEDD) Center &School, no specific policies and protocols have been developed for military nurses who are responding to disaster events. The current research highlighted the fact that the lack of such guidelines led to disorganization, chaos, and frustration. Many joint regulations govern the responsibilities of the military branches to respond to disasters, but none specify how to follow through upon arrival. Few study participants were even aware of the joint publications previously mentioned. As noted in the study, combat protocols are not always applicable to a disaster event. The usefulness of protocols depends upon the nature of the disaster and the job being performed. Carroll (1996) described the need for disaster-specific protocols and procedures that could be modified to meet mission needs. This need was identified following his response to Hurricane Andrew and is still viable today.

Another area within policy that should be addressed is psychological support. Great emphasis has been placed on meeting psychological needs of combat soldiers, but very little

support has been provided to disaster responders. As indicated by the literature, health care providers are emotionally vulnerable following a disaster event. The findings of this study indicate that nurses who respond to disasters suffer from some of the same emotional concerns as combat soldiers, and sometimes the psychological trauma is even greater than that resulting from combat. This is an area of grave concern for future response efforts. Sharon shared how the disaster environment presented greater hardships than combat. Christina said that "poof, you are back, expected to go on with life; [however] no one has experienced what you have experienced." Robert asked, "Who do you find a common purpose with?"

Abundant in the narratives were references to methods used to cope during the disaster events. Several participants described how the members of their teams "were all they had" to sustain them through difficulties they faced, because they were not mentally prepared to deal with the "total devastation" they witnessed.

Future Research

Future research studies should include the experiences of civilian nurses working with military nurses in disaster response. The outcomes of a joint study could provide valuable information to enhance collaborative efforts in the future. Military nurse officers are not the only medical personnel who deploy to disasters. Enlisted medical soldiers accompany them. Therefore, the experience of the enlisted medical personnel is important for a fuller understanding of disaster deployment and should be investigated in future research. Because Disaster Management Teams (DMAT) often integrate with military units during crises, a qualitative study regarding DMAT experiences in disaster responses should also be conducted.

The outcomes of that study should be compared to the experiences of military nurses who responded to disasters. This would facilitate identification of similar patterns of concerns and interventions needed to enhance future collaborative disaster responses.

Crisis communication had both positive and negative effects during the disaster responses. Exploring the relationship between the military and the media over time, from the Vietnam conflict to present, particularly during disaster relief, is warranted. This study identified coping skills as lacking. A qualitative study of the experience of coping in disaster responses should be pursued. Additionally, because existential growth emerged as a strong theme in the research, a qualitative study should be conducted that focuses on such growth following a disaster. Finally, as the military begins to implement education, training, and policy changes relative to disaster, follow-up research will be needed to evaluate their effectiveness.

MILITARY SIGNIFICANCE: HOW THE MILITARY CAN BETTER PREPARE AND SUPPORT ITS OWN

Throughout this section, I present recommendations for enhancing the effectiveness of future disaster readiness and response. The findings of this research suggest steps military branches can take to better prepare their members for disaster response and to support those members during and after their return from disaster deployment. All recommendations are equally important; however, the psychological issues are placed at the beginning. If the military nurse participants are not mentally prepared for the disaster response or do not have the skills to care for themselves, they cannot effectively provide aid to the victims of the disaster.

Psychological Concerns

As noted by the participants, competing demands generated emotional conflict. Participants' core need for emotional stability was threatened by discrepancies between what they were prepared for by their training and what they actually confronted. They were psychosocially ready to go to war, but not for what they encountered in disaster situations. For example, nurses expected to be shot at during conflict, but they were not mentally prepared to be fired upon by non-combatants while providing relief during rescue missions in disaster events. Military nurses are expected to demonstrate a persona of inner strength during stressful events. In preparation for combat deployment, all soldiers are given a medical threat brief. Therefore, those who are deploying to combat have an idea of what they will encounter. In contrast, the lack of preparation for disaster, the absence of pre-deployment information, and on-site

disorganization diminished military nurses' ability to "be strong" because they were caught unaware.

As in combat, disaster stress teams should deploy and return with disaster responders. Furthermore, military nurses who deploy to crises must not be reintegrated into normal duty immediately. A management desensitization process should be instituted for military nurses returning from disasters, similar to the process for soldiers returning from combat. The military currently gives a mental health assessment to soldiers at the end of a combat rotation and six months thereafter. The same protocol should be followed for those who have responded to disasters. Classes should be developed that offer information regarding compassion fatigue, coping mechanisms, and PTSD. Skills to counter and deal with these emotional issues are needed.

Policies and Procedures

Many of the participants were unaware of any joint policies or procedures that govern their disaster responses. This information must be added to their professional training. The need for succinct disaster response policies and procedures was identified in 1996 following a response to Hurricane Andrew. However, these important documents are still lacking. Military units work with civilian communities and organizations during disaster relief. Numerous non-governmental organizations have developed policies, plans, and procedures to facilitate a fluid response. Adopting and adapting their response policies and procedures to military assets would be appropriate and save time in recreating these plans.

Disaster-Specific Training

Considering the number of disasters per year, military nurses are apt to deploy at any given moment to support their civilian colleagues. These events are more varied than combat. In some ways, they put military nurses in more hardship than war, because there is less planning for security, supplies, and the possible need for interpreters. The military must begin to plan for these contingencies, because it is certain that at some point disaster responses will be needed. Yet the military does not offer specific training in disaster response. The military knows how to structure training, but those who design military courses must recognize that disaster response is not the same as combat. Therefore, a disaster readiness curriculum needs to be developed and taught to those who are likely to be involved in disaster deployments or responses. Because all levels of education, from practical nurse through doctoral level nurse, are represented in the ranks, this training must be provided to all.

CBRNE (chemical, biological, radiological, nuclear, high-yield explosives) training is currently the only yearly requirement mandated by military health care facilities. However, this instruction does not prepare the disaster responder to deal with the many different aspects of traumatic events, such as recognizing and dealing with hazardous materials in a field environment or conducting a vulnerability assessment of the disaster arena. Courses of this nature are imperative to the safety and security of military members during those chaotic times. Programs relating to disasters should be incorporated into basic and advanced officer courses and followed by annual refresher classes.

Collaborative Training

Discussions in the literature and the participants' narratives indicate that collaborative training is imperative. Civilian and military members triage differently during traumatic times. In a disaster experience, the most help is given to those with the greatest chance of survival. This switch in thinking presents challenges for everyone. Language is another major area requiring collaborative education. The military uses acronyms not found in the civilian world. This causes difficulties and can delay effective health responses. All military health care facilities need to coordinate joint exercises and disaster drills with their local civilian counterparts and non-governmental organizations. These integrated practice scenarios make the entire community better prepared for future disaster responses.

Disaster Documentation

The recorded history of military nurses responding to disasters is practically nonexistent. As I searched the literature for military disaster material, I found a single military nursing study relating to non-combat missions such as humanitarian and disaster relief. A huge piece of our military nursing effort has been lost to history. Most of the information I was able to locate was noted in AARs. As a corps, military nurses must do a better job of documenting the important roles they play in disaster relief. Our civilian counterparts have numerous articles in the literature; some are research, whereas many are personal reflections. All are important to our future. How can military nurses prevent making the same mistakes repeatedly if they do not document in nursing literature what went right and what needs to be changed? Much has been written regarding military nurses' experiences in combat. Disaster response experiences are

equally important and need to be added to military and nursing literature. The world must be made aware of the numerous care hours provided during crises by military nurses and how those efforts have affected the victims of disasters and those who rendered the health care.

Crisis Communication

As noted in this study, interacting with the media can enhance or inhibit disaster responses. Although it is important for the public to have current information regarding progress of disaster responses and relief efforts, it is even more imperative that the information be accurate. The participants made numerous remarks regarding what the nurses considered biased reporting by the media. For example, several nurses said the media had falsely portrayed them as uncaring and sluggish. In contrast, one participant described previous interactions with news reporters in the process of moving soldiers from the battlefield to higher levels of medical care. This was reported to be a positive interaction because the nurses' work was not impeded, patient privacy was protected, and the nursing efforts were accurately portrayed. Another participant described his interactions with the media during an earthquake outside the United States, noting that the press was respectful of patients and the work nurses were doing. In that instance, military nurses only spoke to or interacted with the media personnel if they were not providing direct patient care. Unfortunately, not all nurses had these favorable interactions.

The time and location of a disaster may have an effect on media coverage and interactions. In two different hurricane disaster responses, the nurses said that while they were evacuating patients out of harm's way, the media and other officials did not realize or perhaps care that they were impeding relief efforts. These situations occurred in airports and other areas,

such as convention centers and hospitals. During a capstone exercise in my HSN courses, I experienced similar problems with media personnel. Several times, I told a news reporter not to breach patient privacy by taking pictures. The individual was finally escorted to another area to be provided information regarding response actions.

Positive and negative experiences with the media can be a direct result of time and location during a crisis event. Immediately after a disaster, things are disorganized, the pace is much faster, and emergent care is being provided in areas outside of a hospital facility. Several days after the disaster, relief efforts may have become more coordinated and field hospitals may have been established, so the hindrance of care may be less noticeable.

As part of disaster training, scenarios need to be developed that include civilian media personnel. These exercises should encompass all phases of disaster response from emergent through recovery. The military public affairs officer may not always be present to speak with the media; therefore, military nurses need training on interfacing and networking with media personnel, transmitting essential health information to the public, and working effectively with dignitaries.

Currently, civilian reporters are embedded with combat teams to cover wars. Consequently, those individuals have a better understanding of the efforts provided. Similarly, as military units deploy to disasters, it is feasible to have a civilian journalist accompany the military unit into the crisis. The joint efforts of civilians and the military could potentially project a stronger front during chaotic situations.

REFERENCES

Agazio, J. (2010). Army nursing practice challenges in humanitarian and wartime missions. *International Journal of Nursing Practice, 16,* 166–175.

Allen, M. N., & Jensen, L. (1990). Hermeneutical inquiry: Meaning and scope. *Western Journal of Nursing Research, 12,* 241–253.

Almonte, A. C. (2007). *Navy nurses' experiences during Operation Unified Assistance aboard the USNS Mercy: A grounded theory study.* Unpublished doctoral dissertation, Hahn School of Nursing and Health Science, University of San Diego, CA.

Almonte, A. C. (2009). Humanitarian nursing challenges: a grounded theory study. *Military Medicine, 174*(5), 479–485.

Arlington County after-action report on the response to the September 11 terrorist attack on the Pentagon. (2001). Retrieved from http://www.co.arlington.va.Us/Departments/Fire/edu/about/docs/after_report.pdf

Auerbach, P. S., Norris, R. L., Menon, A. S., Brown, I. P., Kuah, S., Schwieger, J., … Lawry, L. (2010). Civil-military collaboration in the initial medical response to the earthquake in Haiti. *New England Journal of Medicine,* Published ahead of print at www.nejm.org, February 24, 2010 (10.1056/NEJMp1001555).

Boivin, J. (2001). Pentagon nurse quells chaos of terrorist attack. *Nursing Spectrum, 11*(19), 36.

Byrne, M. (2001). Hermeneutics as a methodology for textual analysis. *The Association of Perioperative Registered Nurses Journal, 73,* 968–970.

Carroll, D. (1996). *The role of the U.S. Army Medical Department in domestic disaster assistance operation: Lessons learned from Hurricane Andrew*. Retrieved from http://www.dtic.mil/cgi-bin/GetTRSoc?AD=ADA309234&Location=U2&doc=GetTRDoc.pdf

Connelly, L., & Yoder, L. (2000). Involving qualitative proposals: Common problem areas. *Clinical Nurse Specialist, 14*(2), 69–74.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2005). *The Sage handbook of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.

Dickerson, S. S., Jezewski, M., Nelson-Tuttle, C., Shipkey, N., Wilk, N., & Crandall, B. (2002). Nursing at Ground Zero: Experiences during and after September 11, World Trade Center attack. *Journal of the New York State Nurses Association, 33*(1), 27–33.

Dossey, B. M., Selanders, L. C., Beck, D., & Attewell, A. (2005). *Florence Nightingale today: Healing, leadership, global action.* Silver Spring, MD: American Nurses Association.

Elleman, B. A. (2007). *Waves of hope: Navy's response to the tsunami in northern Indonesia*. Retrieved from http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA463367&Location=U2&doc=GetTRDoc.pdf

Federal Emergency Management Agency. (2003). *Implement the plan and monitor progress.* Retrieved from http://www.fema.gov/pdf/planmitplanning/how7_phase4.pdf

Federal Emergency Management Agency. (2009). *Declared disasters by year or state*. Retrieved from http://www.fema.gov/news/disaster_totals_annual.fema

Feller, C. M., & Cox, D. R. (2001). *Highlights in the history of the Army Nurse Corp*. Washington, DC: U.S. Army Center of Military History.

Gadamer, H. G. (1976). *Philosophical hermeneutics* (C. Linge, Trans.). Berkeley, CA: University of California Press.

Hays, J. (1999). *AAR comments from the 86th CSH deployment to EL Salvador (JTF Aguila) from 27 Nov–20 Feb 99*. Retrieved April 7, 2007, from https//secure-ll.amedd.army.mil/Reports/Mitch/86thMith.htm

Komnenich, P., & Feller, C. (1991). Disaster nursing. *Annual Review of Nursing, 9,* 123–134.

Kreps, G. A. (1991). Disaster as systemic event and social catalyst. In E. L. Quarantelli (Ed.), *What is a disaster* (pp. 31–55). New York: Routledge.

Leifer, S. L., & Glass, L. K. (2008). Planning for mass disaster in the 1950s: Harriet H. Werley and nursing research. *Nursing Research, 57*(4), 237–243.

Margalit, G., Rosen, Y., Tekes-Manova, D., Golan, M., Benedek, P., Levy, Y., … Bar-Dayan, Y. (2002). Recommendations for nursing requirements at a field hospital, based on the Israel Defense Forces field hospital at the earthquake disaster in Turkey—August 1999. *Accident and Emergency Nursing, 10*(4), 217–220.

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50,* 370–396.

Meadows, L. M., & Morse, J. M. (2001). Constructing evidence within qualitative research. In J. M. Morse, J. M. Swanson, & A. J. Kuzel (Eds.), *The nature of qualitative evidence* (pp. 187–202). Thousand Oaks, CA: Sage.

Merleau-Ponty, M. (1945/1962). *The phenomenology of perception* (C. Smith, Trans.). London: Routledge and Kegan Paul.

National response plan. (2004). Retrieved from http://www.dhs.govx library/assets/NRP/ FullText.pdf

Neal, M. V. (1963). *Disaster nursing preparation. Report of a pilot project conducted in four schools of nursing and one hospital nursing service.* New York: National League for Nursing (ERIC Document Reproduction Service No. ED026477).

Nightingale, F. (1860/1969). *Notes on nursing. What it is, and what it is not.* New York: Dover Publications.

Office of the Medical History. (2002). *Chief Nurse describes 9/11 response.* Retrieved April 7, 2007, from http://history.amedd.army.mil/booksdocs/opnoblegle/chiefnurse.htm

Oliver, G. F. (1999). *Hurricane Mitch after action review conference report.* Retrieved from http://www.auafmil/awc/awcfate/army-usawc/mithc1Boct.doc

Pakistan earthquake: A review of the civil-military dimensions of the international response. (2006). Retrieved from http://www1.apan-info.net/mpat/Resources/References/tabid/3772/DMXModule/9502/Command/Core_Download/Default.aspx?EntryId=6394

Polit, D. F., & Beck, C. T., (2004). *Nursing research: Principals and methods* (7th ed.). Philadelphia: Lippincott Williams & Wilkins.

Pollio, H. R., Henley, T., & Thompson, C. B. (1997). *The phenomenology of everyday life.* New York: Cambridge University Press.

Rodriguez, J., Vos, F., Below, R., & Guha-Sapir, D. (2009). *Annual disaster statistical review: 2008.* Retrieved from http://www.cred.be/sites/default/files/ADSR_ 2008.pdf

Rogers, B., & Lawhorn, E. (2007). Occupational and environmental health professionals' response to Hurricanes Katrina and Rita. *American Association of Occupational Health Nurses, 55,* 197–207.

Ryan, M. E. (2000). *Military operations other than war: Air Force doctrine document 2-3.* Retrieved from http://www.dtic.mil/doctrine/jel/service_pubs/afd2_3.pdf

Sarnecky, M. T. (1999). *A history of the U. S. Army Nurse Corps*. Philadelphia, PA: University of Pennsylvania Press.

Sonnier, S. (2009). Communication in a disaster. In D. S. Adelman & T. J. Legg, *Disaster nursing: A handbook for practice* (pp. 133–143). Subury, MA: Jones and Bartlett.

Speziale, H. J., & Carpenter, D. R. (2007). *Qualitative research in nursing* (4th ed.). Philadelphia: Lippincott Williams & Wilkins.

Stimpson, J. C. (1923). Army nurses sent to Japan. *The American Journal of Nursing, 24,* 136–138.

Thomas, S., & Pollio, H. (2002). *Listening to patients: A phenomenological approach to nursing research and practice*. New York: Springer.

Valle, R. S., & Halling, S. (1989). *Existential-phenomenological perspectives in psychology: Exploring the breadth of human experience*. New York: Plenum

Wang, D., Sava, J., Sample, G., & Jordan, M. (2005). The Pentagon and 9/11. *Critical Care Medicine, 33*(1 Suppl.), S42–S47.

West, I. J., & Clark, C. (1995). The Army nurse corps and Operation Restore Hope. *Military Medicine, 160*, 179–183.

Whall, A. L., YunHee, S., & Colling, K. B. (1999). A Nightingale-based model for dementia care and its relevance for Korean nursing. *Nursing Science Quarterly,12*, 319–323.

Yalom, I. D. (1980). *Existential psychotherapy*. New York: Basic Books

Zamarripa, V. (2003). International trauma and disaster management. *Critical Care Nursing Clinics of North America, 15*, 275–281.

APPENDIX A: FINAL BUDGET REPORT

CATEGORY	ORIGINAL AWARD	REALLOCATIONS	EXPENSED AT END OF STUDY	REMAINING AMOUNT
Transcription Cost	$1,980.00	+$32.50	$0	$0
Equipment	$450.00	−$160.04	$0	$0
Supplies	$1,230.00	+$20.59	$0	$0
Travel	$13,007.00	$0	$2,916.55	$2,916.55
Other Expenses	$210.00	+$106.95	$0	$0
TOTAL	$16,877.00	$0	$2,916.55	$2,916.55

Discussion

The amount allocated for transcription was not sufficient for 23 interviews. $32.50 was reallocated from the Equipment category to cover the additional cost because all equipment needed for the study had been purchased. Remaining funds of $137.54 were reallocated as follows: $20.59 for supplies and $106.95 for other expenses. The additional monies were spent by the end of the budget period. All travel for interviews and dissemination has been completed. $2,916.55 of unspent funds were left in the travel category and returned to TSNRP via the grant office at the University of Tennessee, Knoxville. The PI and the budget office verified their budget numbers matched at the end of the study.

APPENDIX B: PROBLEMS ENCOUNTERED, RESOLUTIONS

No problems were encountered during the study. There were no adverse events with the study participants. No unanticipated events or issues have affected the study.

APPENDIX C: PSYCHOMETRIC REPORT

Reliability and Validity of Measures

If no instrumentation was used for your study, check here X

Directions: Please complete the questions below addressing demographic characteristics of your sample and overall sample size. For the tool identified in the attached cover letter, please complete the following questions regarding any reliability and/or validity testing you performed. Please note that this list is not meant to be exhaustive. If you performed other reliability and/or validity testing which is not listed, please identify the test, and report your findings under "other." If further space is needed, please attach additional pages. Please submit a copy of the tool if you made any modifications.

Principal Investigator – Contact Information

Name:		**Telephone**		**Work**
Address:		**Number:**		**Home**
		E-mail:		
Title of Study				

DEMOGRAPHIC CHARACTERISTICS OF SAMPLE

Total sample size:	**Age Range:**				**Number**	**Service**
	<19 yrs	19-60 yrs	>60 yrs	Other		Army
Male						Air Force
Female						Navy
						Marine

Number	**Race:**	**Number**	**Service Component:**
	Caucasian		Active Duty
	African-American		Retired
	Hispanic		Reserve
	Asian/Pacific Islander		National Guard
	Other (Describe)		Dependent

Briefly describe defining characteristics of sample:

Instrument Reference					
Instrument Title:				**Number of Scales:**	
Instrument Publication Year:				**Edition:**	
Authors:					
Publisher:					
Journal or Book Title:					
Year:		**Volume:**		**Page Numbers:**	
Tool Modifications					
Did you modify this tool?	☐ **Yes (Answer A & B below)**		☐ **No**		
A. Briefly describe why modifications were made:					
B. Describe what modifications were made (attach page if additional space is needed):					

Directions: Please indicate any reliability and/or validity testing you did on this instrument. Please report findings of each scale next to the test.

Check all that apply

Reliability		Validity
☐ **Internal-Consistency Reliability**		Content Validity
☐ Cronbach Coefficient Alpha		☐ Index of Content Validity (CVI)
☐ Kuder- Richardson (KR-20)		☐Other (please describe on back of form)
☐ Interrator Reliability		**Criterion-Validity**
☐ Intrarater Reliability		☐ Predictive
☐ Coefficient of Stability (test-retest)		☐ Linear Correlation
☐ Coefficient of Equivalence		Name of Criterion Measure Used:
☐ Other (please describe on back of form)		☐ Concurrent
		☐Linear Correlation
RELIABILITY OF INDIVIDUAL SCALES		Name of Criterion Measure Used:
Scale Name	**Reliability**	☐ Construct Validity (include a copy of findings)
		☐ *Multitrait-Multimethod*
		☐ Hypothesis testing
		☐ Contrasted Group
		☐ Factor Analysis
		☐ Exploratory
		☐ Confirmatory
Please use back of form for additional scales		☐ Other (please describe on back of from)
Evaluation of Measure		
Would you recommend the use of this measure in your population to other researchers? Use extra page, if needed.		

☐ Yes. Please explain why.	

APPENDIX D: RESEARCH CATEGORIZATION USING TSNRP AREAS OF RESEARCH

Identify the main research priority investigated in this research study.
Please check one item for Primary (Required) and one item for Secondary Priority Areas (if appropriate)

Primary Research Priority Area: (Required)

_X_ Military Deployment Health

___ Translating Knowledge & Research Findings into Practice in a Military Context

___ Evidence Based Practice

___ Recruitment & Retention of the Military Nursing Workforce

___ Developing & Sustaining Military Nursing Competencies

Secondary Research Priority Area:

___ Military Deployment Health

___ Translating Knowledge & Research Findings into Practice in a Military

___ Evidence Based Practice

___ Recruitment & Retention of the Military Nursing Workforce

_X__ Developing & Sustaining Military Nursing Competencies

Other *(fill in)* _____

Identify 3-5 key words relating to the proposal. (Required)
(You MUST use the *CRISP Thesaurus* for key words. The thesaurus is on the web at:
http://crisp.cit.nih.gov/crisp/crisp_help.help

1. disaster
2. nurse
3. stress

4.
5.

APPENDIX E

Do you have any articles or presentations 'in press' ☐ **yes** **X no**

If yes, provide copies and all PAO clearance information. All citations listed must be in APA format.

We have one article in review:

Journal Title: Journal of Homeland Security and Emergency Management.

Manuscript Title: A Review of Nurses in Disaster Preparedness and Response: Military and Military-Civilian Collaboration

Authors: Rivers, F. M., Speraw, S., Phillips, K., & Lee, J.

I have presented information in several venues both civilian and military. All were cleared by CRDAMC PAO. The following is a list of dissemination efforts.

Poster Presentation:
Rivers, F., & Speraw, S. "The Essence of Military Nurses' Experiences in Disaster Response," 115th AMSUS Convention. St Louis, MO, 16 November 2009, Publication in: Karen Rieder Poster Presentation

Rivers, F. & Speraw, S. *"If it Doesn't Touch You, Then You've Got Some Problems!"* 22nd Annual Karen Rieder Research/Federal Nursing Poster Session, AMSUS Convention, Phoenix, AZ; 31 Oct – 5 Nov 2010, Abstract in review.

Podium Presentations:
Rivers, F. Speraw, S. "Into the Unknown": Military Nurses' Experiences in Disaster Response, Southern Nursing Research Society, 2010, Austin, TX.

Rivers, F., Speraw, S. "Illuminating the Essence of Military Nurses' Experience in Disaster Response." 16th Biennial PJV Military Nurses Research Course, 2010, San Antonio, TX.

Rivers, F. Situational Awareness – Multi-Casualty Events, 8th Annual US Army EMS Training Seminar, 2010, San Antonio, TX.

APPENDIX F: PUBLIC AFFAIRS OFFICE CLEARANCES

Carl R. Darnall Army Medical Center

Complete this checklist and submit to CRDAMC Public Affairs for Public Affairs, clinical, and OPSEC reviews. Email the completed form with your presentation.

PUBLIC RELEASE CHECKLIST

1. DOCUMENT FOR: (check any that apply)
Technical Paper _____
Journal Publication ____
Book Chapter _____
Book____
Poster Presentation __X_ _____
Oral Presentation/speech ____
Briefing_____
Other (any written or visual material for public release) _____
***Excluded are technical bulletins, technical manuals**

2. UNCLASSIFIED TITLE: *"If it Doesn't Touch You, Then You've Got Some Problems!"*

3. AUTHOR(S): (identify AMEDD authors)

a. Originator: MAJ Felecia M. Rivers
b. Email address:felecia.rivers@amedd.army.mil
c. Phone number: (254) 553-3840
d. Location: RM 0011, Research Section, CRDAMC

4. SUBMITTED FOR: (check as many as apply)

a. Presentation at: 22nd Annual Karen Rieder Research/Federal Nursing Poster Session, AMSUS Convention
b. Location/Date: Phoenix, AZ; 31 Oct – 5 Nov 2010
c. Publication in:
d. Deadline for submission: 30 June 2010

5. REVIEW AT AUTHOR'S ORGANIZATION: CRDAMC

a. Clinical review – by COL Risa Bator
b. Public Affairs review – by Jeri Chappelle, MEDCEN PAO
c. OPSEC review – by Mr. Riveragonce, Training Coordinator, Hospital Operations

Carl R. Darnall Army Medical Center

Complete this checklist and submit to CRDAMC Public Affairs for Public Affairs, clinical, and OPSEC reviews. Email the completed form with your presentation.

PUBLIC RELEASE CHECKLIST

1. DOCUMENT FOR: (check any that apply)
Technical Paper _____
Journal Publication ____
Book Chapter _____
Book____
Poster Presentation ___ _____
Oral Presentation/speech __X__
Briefing_____
Other (any written or visual material for public release) _____
***Excluded are technical bulletins, technical manuals**

2. UNCLASSIFIED TITLE: Situational Awareness: Multi-Casualty Incidents
3. AUTHOR(S): (identify AMEDD authors) MAJ Felecia Rivers

a. Originator: MAJ Felecia Rivers
b. Email address:felecia.rivers@amedd.army.mil
c. Phone number: (254) 553-3840
d. Location: RM 0011, Research Section, CRDAMC

4. SUBMITTED FOR: (check as many as apply)

a. Presentation at: 8th Annual US Army EMS Training Seminar
b. Location/Date: San Antonio, TX, 11-13 May 2010
c. Publication in:
d. Deadline for submission: 10 April 2010 of PPT (I was invited to present).

5. REVIEW AT AUTHOR'S ORGANIZATION: CRDAMC

a. Clinical review – by COL Joan Vanderlaan, Deputy Commander for Nursing & Patient Services: clinically acceptable, approved for presentation

E-Signed by VANDERLAAN.JOAN.KOENIG.1050312883
VERIFY authenticity with ApproveIt
VANDERLAAN.JOAN.KOENIG.10

b. Public Affairs review – by Jeri Chappelle, Carl R. Darnall Army Medical Center PAO, 7 April 2010: No controversial information as long as Nov. 5 is not discussed.

c. OPSEC review – by Mr. Riveragonce, Training Coordinator, Hospital Operations: No OPSEC concerns.

Carl R. Darnall Army Medical Center

Complete this checklist and submit to CRDAMC Public Affairs for Public Affairs, clinical, and OPSEC reviews. Email the completed form with your presentation.

PUBLIC RELEASE CHECKLIST

1. DOCUMENT FOR: (check any that apply)
Technical Paper _____
Journal Publication ____
Book Chapter _____
Book____
Poster Presentation ___ _____
Oral Presentation/speech __X__
Briefing_____
Other (any written or visual material for public release) _____
***Excluded are technical bulletins, technical manuals**

2. UNCLASSIFIED TITLE: Into the Unknown: Military Nurses' Experiences in Disaster Response

3. AUTHOR(S): (identify AMEDD authors)

a. Originator: MAJ Felecia M. Rivers
b. Email address:Felecia.rivers@amedd.army.mil
c. Phone number: (254) 553-3840
d. Location: Research Department

4. SUBMITTED FOR: (check as many as apply)

a. Presentation at: Southern Nurse Research Society (SNRS) Conference
b. Location/Date: Austin, TX/ 3-6 February 2010
c. Publication in: SNRS Conference
d. Deadline for submission: 10 Oct 2009

5. REVIEW AT AUTHOR'S ORGANIZATION: CRDAMC

a. Clinical review – by COL Joan Vanderlaan, Deputy Commander for Nursing & Patient Services: no objections to content or planned presentation

b. Public Affairs review – by Jeri Chappelle, MEDCEN PAO – cleared from PAO perspective

c. OPSEC review – by Mr. Riveragonce, Training Coordinator, Hospital Operations
No OPSEC violations noted in the presentation

Carl R. Darnall Army Medical Center

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PUBLIC RELEASE CHECKLIST

1. DOCUMENT FOR: (check any that apply)
Technical Paper _____
Journal Publication _X___
Book Chapter _____
Book____
Poster Presentation ___ _____
Oral Presentation/speech ____
Briefing_____
Other (any written or visual material for public release) _____
***Excluded are technical bulletins, technical manuals**

2. UNCLASSIFIED TITLE: A Review of Nurses in Disaster Preparedness and Response: Military and Military-Civilian Collaboration

3. AUTHOR(S): (identify AMEDD authors)

a. Originator: MAJ Felecia M. Rivers
b. Email address:Felecia.rivers@amedd.army.mil
c. Phone number: (254) 553-3840
d. Location: Research Department

4. SUBMITTED FOR: (check as many as apply)

a. Presentation at:
b. Location/Date:
c. Publication in: Journal of Homeland Security and Emergency Management

d. Deadline for submission:

5. REVIEW AT AUTHOR'S ORGANIZATION: CRDAMC

a. Clinical review – by COL Joan Vanderlaan, Deputy Commander for Nursing & Patient Services: by COL Joan Vanderlaan, Deputy Commander for Nursing & Patient Services: No Clinical Objections.

b. Public Affairs review – by Jeri Chappelle, MEDCEN PAO: No PAO objections.

c. OPSEC review – by Mr. Riveragonce, Training Coordinator, Hospital Operations: No OPSEC Violations.

Complete this checklist within originator's organization before submitting to OTSG/MEDCOM Public Affairs for public affairs, clinical, and OPSEC reviews. Email the completed form with your presentation, or include completed checklist when presentation is mailed, FedEx'd, or hand-delivered.

PUBLIC RELEASE CHECKLIST

1. DOCUMENT FOR: (check any that apply)
Technical Paper _____
Journal Publication ____
Book Chapter _____
Book____
Poster Presentation ___X_____
Oral Presentation/speech ____
Briefing_____
Other (any written or visual material for public release) _____
***Excluded are technical bulletins, technical manuals**

2. UNCLASSIFIED TITLE: "The Essence of Military Nurses' Experiences in Disaster Response."

3. AUTHOR(S): (identify AMEDD authors)

a. Originator: MAJ Felecia M. Rivers
b. Email address:Felecia.rivers@amedd.army.mil
c. Phone number: (254) 553-3840
d. Location: Research Department

4. SUBMITTED FOR: (check as many as apply)

a. Presentation at: 115th AMSUS Convention
b. Location/Date: St Louis, MO/ 16 November 2009
c. Publication in: Karen Rieder Poster Presentation
d. Deadline for submission: 30 June 2009

5. REVIEW AT AUTHOR'S ORGANIZATION: CRDAMC

a. Clinical review –
Reviewer's name, title, and comments: COL Joan Vanderlaan, Deputy Commander for Patient Services and Nursing. I have reviewed and discussed w/Maj Rivers. It is fine for submission.

b. Public Affairs review –
Jeri Chappelle, Chief, Public Affairs: 6 July 2009. PAO found no content violations or objectionable content.

c. OPSEC review –
OPSEC reviewer's name, title, and comments: Mr Esteban Rivera-Gonce, OPSEC Officer,: I have reviewed Poster Abstract and found no OPSEC Violations.

Carl R. Darnall Army Medical Center

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PUBLIC RELEASE CHECKLIST

1. DOCUMENT FOR: (check any that apply)
Technical Paper _____
Journal Publication ____
Book Chapter _____
Book____
Poster Presentation _X__ _____
Oral Presentation/speech ___X_
Briefing_____
Other (any written or visual material for public release) _____
***Excluded are technical bulletins, technical manuals**

2. UNCLASSIFIED TITLE: Illuminating Military Nurses' Experiences in Disaster Response
3. AUTHOR(S): (identify AMEDD authors)

a. Originator: Felecia M. Rivers, PhD, RN; MAJ, AN
b. Email address: felecia.rivers@amedd.army.mil
c. Phone number: (254) 553-3840
d. Location: C. R. Darnall AMC

4. SUBMITTED FOR: (check as many as apply)

a. Presentation at: 16th Biennial Phyllis J. Verhonick Nursing Research Course
b. Location/Date: San Antonio, TX/ 26-20 2010
c. Publication in:
d. Deadline for submission: 15 Dec 2009

5. REVIEW AT AUTHOR'S ORGANIZATION: CRDAMC

a. Clinical review – by COL Joan Vanderlaan, Deputy Commander for Nursing & Patient Services: It is fine for submission.

b. Public Affairs review – by Jeri Chappelle, MEDCEN PAO: PAO has no objection to this abstract.
c. OPSEC review – by Mr. Riveragonce, Training Coordinator, Hospital Operations: no OPSEC Violations

APPENDIX G: INFORMATION FOR ANYONE INTERESTED IN PARTICIPATING IN A RESEARCH STUDY

Military Nurses' Experiences in Disaster Response

WHAT: A research study seeking to understand the lived experience of military nurses who have responded to a disaster during their military service.

WHY: Disasters occur almost on a daily basis around the world. Over the last decade, 577 natural disasters have occurred in the United States (U.S.) and it territories with 47 disasters transpiring since the beginning of 2006 (FEMA, 2006). Furthermore, disasters are increasing in intensity and scope, resulting devastation is greater, and this demands longer duration of response for military nurse responders, and therefore increases stress. Meeting basic human needs during crises is a critical concern.

Historically, nurses have been present during crisis events to render care to those injured. Often times, the nurses are military.

The voices of military nurses who respond to a disaster will be heard through this research. This research will gather accurate information and the expert perspective to facilitate improved preparation for disaster response, and to enable the military to care better for its own. The findings will assist military nurses in future preparations for responding to a crisis event.

WHO CAN PARTICIPATE:

All military nurses officers who share the following characteristics:

- have in the past responded to one or more disaster events during their military service
- speak English
- be willing to share their story
- able to recall and discuss their disaster experiences.

Military respondents can be from any branch of service including Army, Navy, Air Force, National Guard, or U. S. Public Health Service, and may been either active duty, or reservists at the time they responded to the disaster.

WHERE: Interviews lasting approximately 60-90 minutes in the participants' own homes, or at a place and time which is mutually agreed upon by participant and interviewer. Interviews will be digitally recorded and confidential.

WHEN: Beginning July 2009

HOW: Email the investigator at frivers@utk.edu. Felecia Rivers, the Principal Investigator, will respond to your message as quickly as possible to answer your questions and discuss the study in more detail. Requesting information does not obligate the potential participant in any way.

APPENDIX H: INFORMED CONSENT STATEMENT

"Military Nurses' Experiences in Disaster Response."

In signing this consent form, I am saying that I talked with the principal investigator, Felecia Rivers, a doctoral student at the University of Tennessee College of Nursing, about her research study to investigate military nurses' experience in disaster response. ***Disaster*** **is as any non-combat mission—humanitarian relief, or response to a catastrophic natural or human-made event—outside of warfare, to which military nurses are deployed.**

I understand that the purpose of this research study is to understand the essence of military nurses lived experiences in responding to a disaster. Findings from the research will allow the nurse participants' experiences, knowledge, and lessons learned to be incorporated into training and support for military nurses who participate in future disaster events.

I understand, as the research participant, I will share my disaster response experiences during a digitally recorded confidential interview lasting approximately 60 to 90 minutes. The interview will take place at a location of my choice, and will end when I have nothing more to say. Digital recordings will be hand carried to a professional transcriber for transcription. The transcriptionist will sign a pledge of confidentiality and be instructed to place the digital recordings on a secure drive, which will be maintained in a locked file. Additionally, the transcriptionist will be instructed to replace any identifying information such as names, cities, work sites with pseudonyms. Identity of participants will not be revealed to anyone, at any time, for any reason other than that which is required by law. The transcripts (without identifiers) may be reviewed by members of a research group, which meets at the University of Tennessee College of Nursing. Members of the group will also sign a pledge of confidentiality. When the researcher presents or publishes the findings, no identifying information will be used. Digital recordings, but not transcripts, will be destroyed upon completion of the dissertation defense. Transcripts will be retained indefinitely, stored in a locked file in the researcher's office, to be used in future disaster-related research with nurses. These measures are to ensure my confidentially as a research participant.

I understand the primary risk from this research is that I may become emotionally upset when I recall particular experiences that were upsetting or stressful to me. If I become upset and want to end my participation, I only need to tell the researcher, and the interview will end immediately. At that point I can choose whether to allow my interview to that point to be used, or destroyed. If I want it destroyed, it will be erased in my presence.

The sharing of my experiences may be beneficial to me since I will be discussing the disaster response with someone who cares and wants to listen. Other possible benefits from participation are that my story could provide critical information to assist the military in providing improved training and support to nurses who respond to disasters in the future. No incentives or payment has been given to me for my participation.

_____

Initials

I understand I am free to ask questions at any time or to change my mind about participating in the research study. If any time, I have questions about the research study, I can contact the principal investigator, Felecia Rivers, MSN, RN via email: frivers@utk.edu. Additionally, I may contact Dr Susan Speraw, Ph.D., RN, the dissertation advisor at the University of Tennessee College of Nursing, 1200 Volunteer Blvd, Knoxville, TN 37996-4180; phone: 865-974-7586, or email: ssperaw@utk.edu. If I

decide to stop my participation, it will not affect me or my status in any way. Any information about me will be kept in confidence according to current legal requirements, and will not be revealed to anyone unless required by law. If I have any questions about my rights as a participant, I can contact the Research Compliance Office at 865-974-3466.

_____

I understand what has been explained to me. If I would like a copy of the findings of the research study, I need to initial the yes block below and provide contact information.

Yes _____

Preferred Contact Address: (Please Print Clearly)

The purpose of this research and what I am being asked to do have been explained to me and my questions have been answered.

Participant Signature: _____ Date: _____

Should feel you the need for mental health assistance in the future, please contact mental health services at the military installation closest to your duty assignment. Should you wish not to utilize the military installation facilities, the following toll free hotline numbers are provided for your convenience:

Hotline Numbers: 1- (877) 877-3647 – Military Mental Health Hotline

1- (888) 826 9538 – National Institute of Mental Health

1 (800) 447-4474 – Mental Health InfoSource

APPENDIX I: DEMOGRAPHIC DATA SHEET

Current Age: _____ **Current Military Status:** ___ Active Duty

Gender: ____ Male ____ Female ___ Reserve

Current Education Level: ___ ADN ___ Diploma ___ National Guard

___ BSN ___ MSN ___ Retired

___ PhD ___ USPHS*****

If you are or were military, in which branch? _____

If you are or were military, how long were you a member? _____

ALL QUESTIONS BELOW THIS LINE REFER TO YOUR STATUS OR EXPERIENCE AT THE TIME OF YOUR DISASTER RESPONSE

- As a member of the military, what was your rank at the time of your disaster response(s)_____
- Site(s) of Disaster response(s) (list all):

- Please complete the following table:

Disaster Year	How long were you deployed	Education Level at the time	Age at the time	Years in Nursing at the time

- Did you have the opportunity to work with civilian nurse responders?

  Yes ___ No___

- Area of clinical specialty: _____

***** U.S. Public Health Service

APPENDIX J: TRANSCRIBER'S PLEDGE OF CONFIDENTIALITY

As a transcribing typist of this research project, "Military Nurses' Experiences in Disaster Response," I understand that I will be hearing tapes of confidential interviews. The information on these tapes has been revealed by research participants who participated in this project on good faith that their interviews would remain strictly confidential. I understand that I have a responsibility to honor this confidentially agreement. I hereby agree not to share any information on these tapes with anyone except the primary investigator, Felecia Rivers, MSN, RN, of this project. Any violation of this agreement would constitute a serious breach of ethical standards, and I pledge not to do so.

_____ _____

Transcribing Typist Date

APPENDIX K: INTERDISCIPLINARY PHENOMENOLOGY RESEARCH GROUP PLEDGE OF CONFIDENTIALITY

As a member of the Interdisciplinary Research Phenomenology group, I understand that I will be reading transcriptions of confidential interviews of the study "Military Nurses' Experiences in Disaster Response." The information in these transcripts has been revealed by research participants who participated in this research study on good faith that their interviews would remain strictly confidential. I understand that I have a responsibility to honor this confidentially agreement. I hereby agree not to share any information in these transcriptions with anyone except the primary investigator, Felecia Rivers, MSN, RN, of this project, his/her doctoral chair, or other members group. Any violation of this agreement would constitute a serious breach of ethical standards, and I pledge not to do so.

_____ _____

Interdisciplinary Phenomenology Date

Research Group Member

APPENDIX L: RESEARCH COMMITTEE PLEDGE OF CONFIDENTIALITY

As a member of the Research Committee, I understand that I will be reading transcriptions of confidential interviews of the study "Military Nurses' Experiences in Disaster Response." The information in these transcripts has been revealed by research participants who participated in this research study on good faith that their interviews would remain strictly confidential. I understand that I have a responsibility to honor this confidentially agreement. I hereby agree not to share any information in these transcriptions with anyone except the primary investigator, Felecia Rivers, MSN, RN, of this project, or his/her doctoral committee. Any violation of this agreement would constitute a serious breach of ethical standards, and I pledge not to do so.

_____ _____

Research Committee Member Date