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Military Emergency and Critical Care Nurses' Lived Experiences of Resilience

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Carla A. Wiese

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Walden University
2022

Abstract

Military Emergency and Critical Care Nurses' Lived Experiences of Resilience

by

Carla A. Wiese

MS, Walden University, 2012

BS, Wilkes University, 1996

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Nursing Education

Walden University

November 2022

Abstract

Resilience has been studied across a myriad of populations. Many resilience studies have focused on military service members, including military healthcare personnel, specifically nurses. Although many quantitative resilience studies have been conducted, there have been few qualitative studies in this area. Qualitative studies have focused solely on spiritual resilience, although mixed methods studies have identified other resilience characteristics. The aim of this descriptive phenomenological study was to identify resilience characteristics through rich description within the situational and philosophical patterns of resilience and gain a better understanding of how emergency and critical care military nurses honed resilience in the face of horrific trauma. Five military emergency and critical care nurses were interviewed to gain an understanding of their lived experience in the deployed setting of a Level 1 trauma center in Bagram, Afghanistan between 2005 and 2010. A continuous iterative process revealed several themes: (a) unprepared for the assignment, (b) leadership in name and/or position only, (c) relationships, and (d) safety. Findings from the data indicated that the participants embodied many resilience characteristics from the situational and philosophical patterns, such as active problem-oriented coping, realistic assessment of one's capacity to act, determination, problem solvers, perseverance, persistence, sense of being in control, adaptability, reflection about oneself and events, and reflective changes over time. It was evident that resilience was cultivated during and from the nurses' experiences, leading to the need for additional qualitative studies with these and other military healthcare personnel with the same experiences to further understand how resilience is developed.

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Dedication

This dissertation is dedicated in loving memory to Andrea “Andee” McGuire. You always provided big sister protection, guidance, and encouragement and believed in me when I didn’t believe in myself. Forgiveness is a powerful gift and you gave it freely. You were taken too soon. I’ll always treasure our family time. You are dearly missed, but never forgotten and always loved. Until we meet again …

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To the rest of my family, for all the encouragement along the way—Thank you!

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I want to thank all the colleagues I shared this doctoral journey with. We helped each other grow, encouraged each other along the way, and each reached our goals in our own ways and time. I am grateful for the friendships made throughout this journey.

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Chapter 1: Introduction to the Study

Nurses enter the profession as a calling to care for the ill and injured. Military nurses are no different, except that the care they render is in military treatment facilities (MTFs), including those in war zones. Military emergency and critical care nurses encounter similarly sick and injured patients in home station MTFs as their civilian counterparts. However, no injuries encountered in home station MTFs compare to the traumatic injuries service members suffer in operational battles, which include firefights with flying explosives and improvised explosive devices. Injuries sustained due to military operations are more traumatic and significant than any experienced in civilian facilities or home station MTFs. Emergency and critical care nurses who worked in the Level 1 trauma center in Bagram, Afghanistan, may not have been prepared predeployment for the severity of traumatic injuries they encountered, leading to issues with and lack of resilience. This lack of preparedness may have forced many of those nurses to find ways to overcome such trauma and bounce back so that they could continue caring for injured service members throughout their entire deployment, which left many to come home with psychological and emotional trauma (Chen et al., 2021; Doherty et al., 2020; Gibbons et al., 2014), for which they may or may not have sought care. Through this phenomenological study, I sought to understand these military nurses' lived experience of resilience after having cared for traumatically injured service members. In this chapter, I explore the development of the study, addressing the study's background, problem statement, purpose, nature, definitions, assumptions, scope and delimitations, limitations, and significance.

Background

A cursory review of the literature revealed a gap wherein military emergency and critical care nurses were not psychologically and emotionally prepared to deploy to the Level 1 trauma center in Bagram, Afghanistan. Gibbons et al. (2014) noted that military healthcare workers had to find ways of adaptive coping during deployment. Their conclusion suggested that medical personnel need training in psychological first aid prior to deployment to stave off posttraumatic stress disorder (PTSD). Doherty et al. (2020) conducted a retrospective study that determined that some posttraumatic growth (PTG) occurred in nurses who deployed to Level 1 trauma centers during the Operation Iraqi Freedom and Enduring Freedom campaigns. Although PTG was noted, findings suggested that awareness of the environment may have provided for increased psychological protection where PTG was not needed or to the extent PTG was required.

Although the literature noted a lack of resilience preparedness for deployment to high-trauma environments, the significant gap was a lack of identified resilience characteristics other than spirituality in nurses. Simmons et al. (2018) studied en route care nurses (flight nurses) who cared for severely wounded personnel and found that they were not mentally and spiritually prepared for their experiences in the war zones, while Ormsby et al. (2016) noted that the spirituality of nurses provided a protective factor in relation to the trauma of patient care during deployment. My experiences mirrored these studies, as I experienced much more trauma on my first deployment, not knowing what to expect or the severity of traumatic injuries. For these reasons, there was a need to understand and identify resilience characteristics other than spirituality in military

emergency and critical care nurses who deployed to Craig Joint Theater Hospital (CJTH) in Bagram, Afghanistan between 2005 and 2010. An improved understanding of other resilience characteristics will inform preparedness education for these nurses when they prepare to deploy in future conflicts, where they will see horrendous injuries similar to those that occurred during Afghan operations.

Problem Statement

This research study addressed the lack of information on resilience characteristics other than spirituality that military emergency and critical care nurses relied on to bounce back from traumatic experiences as a result of having cared for severely injured service members while deployed. Ausar et al. (2021), Ormsby et al. (2016), and Simmons et al. (2018) studied outcomes specifically focused on the spiritual resilience characteristic that nurses relied on to combat untoward outcomes from traumatic deployment experiences after caring for traumatically injured service members. Other studies (Doherty et al., 2020; Gibbons et al., 2014) touched on resilience characteristics from one of the four patterns outlined in Polk's (1997) "Toward a Middle-Range Theory of Resilience"; however, those characteristics were correlated with survey outcomes that focused on PTSD or PTG and not resilience as the focus of the studies.

Personal knowledge of the number of traumatic injuries nurses treated while deployed to Afghanistan intensified my curiosity about resilience among emergency and critical care nurses, particularly during the war years of 2005–2010. During that time, injuries were particularly severe and high in number. I wanted to know more about nurses' resilience, other than spiritual resilience, after having cared for these severely

injured service members during their time in Afghanistan. Furthermore, my curiosity about resilience stemmed from personal deployment experiences, having cared for traumatically injured service members as a flight nurse who specialized in critical care. My study findings add to the body of literature to better understand the lived experiences of military emergency and critical care nurses who treated newly sustained traumatic injuries, as well as preparedness levels for such experiences that affect nurses' resilience. Information gleaned from this study may provoke improved predeployment training for these groups of military nurses.

Purpose of the Study

This phenomenological study aimed to explore the lived experiences of resilience among military emergency and critical care nurses who cared for traumatically injured service members at Craig Joint Theater Hospital, Bagram, Afghanistan between 2005 and 2010. Military emergency and critical care nurses, retired and separated from service, were recruited from professional military and civilian nursing organizations and through snowballing using social media and professional colleagues. The current evidence of lived experiences of resilience spans multiple types of military healthcare workers who deployed, including flight nurses, physicians, medical technicians, and nurses of multiple specialties. Focusing on emergency and critical care nurses who provided immediate treatment to traumatically injured service members augmented the body of resilience evidence.

Research Question

What are the lived experiences of resilience in military emergency and critical care nurses who cared for traumatically injured service members in Afghanistan between 2005 and 2010?

Theoretical Framework for the Study

This qualitative study was grounded in the theoretical framework of Polk's (1997) "Toward a Middle-Range Theory of Resilience" in general while more narrowly situated within two specific patterns of Polk's theory: the situational and philosophical patterns. The core tenet of this theory is that nurses focus on the holistic approach to patient care. Resilience is predicated on the paradigm that individual interactions with the environment and experiences are complex and multidimensional. Numerous factors can affect the individual within a given environment, and subsequently, the individual's experience will be affected by the present factors. Individuals who experience trauma will react based on natural personal attributes and environmental factors, and that reaction will be either positive (having resilience) or negative (lack of resilience). Military emergency and critical care nurses have personal experiences of patient care and military enculturation; however, the operational combat environment challenges how they react to traumatic injuries. Resilience in the context of wholeness of nursing care fit with this study, as emergency and critical care nurses cared for traumatically injured patients in the combat environment.

Resilience theory related to the study approach of phenomenology because there must have been a lived experience of trauma for resilience to develop in an individual.

There is a theory that resilience is innate, or lies within personality characteristics (Karairmak et al., 2017). However, Polk’s (1997) theory indicates that resilience evolves; this process develops once one experiences a particular situation. Chapter 2 will provide further details on the theoretical propositions of Polk’s theory as they relate to this study.

The approach to this study was through the lens of the lived experiences of military emergency and/or critical care nurses within a specific environment (deployed Level 1 trauma center) to identify resilience characteristics other than spirituality. The research question was situated in lived experiences as well. Interview questions were developed with keywords from the situational and philosophical characteristic lists in mind. Questions were framed to elicit detailed information related to deployment preparedness and experiences from the nurses’ first and subsequent mass casualty (mascal) situations. Probing questions were used to elicit reactions and experiences of the nurses after a mascal event ended, including time between mascal events and downtime when nurses were off shift.

Situational pattern characteristics included less avoidance-oriented coping, ability to gauge the capacity to respond to situations and follow through as required, realistic appraisal of situations, determination, perseverance, persistence, and control over the environment. The philosophical pattern encompassed characteristics of reflection about oneself and events, realization that life has purpose, belief in finding positive meanings in experiences, sense of worth, sense of personal integrity, and reflexive changes over time. Characteristics from the dispositional and relational patterns were identified as well.

Keywords from the situational and philosophical patterns outlined above helped focus and develop interview questions.

Nature of the Study

I used a descriptive phenomenological design to address the research question in this qualitative study. Researchers who use descriptive phenomenology seek to find the meaning of lived experiences through rich descriptions that participants provide while answering interview questions. Insight was gleaned about resilience characteristics other than the spirituality of military nurses who experienced psychological and emotional trauma as a result of the number and severity of traumatic injuries they treated while deployed. Moustakas (1994) postulated that the researcher comes to an understanding of the true relations of experience descriptions from the lens of a specific situation in order to gain phenomenological knowledge. Military emergency and critical care nurses who had their first Afghanistan deployment were interviewed to garner specific resilience characteristics in the situational and philosophical patterns. Manual coding and thematic analysis of these interviews provided insight into resilience characteristics of military nurses who experienced psychological trauma due to the number and severity of traumatic injuries they treated while deployed.

Definitions

Resilience was the main concept of this study and was defined as bouncing back and overcoming traumatic experiences (Chen et al., 2018; Vyas et al., 2016). *Traumatic injury* was the concept from which nurses' experiences arose and was defined as severe sudden injury requiring immediate life-saving resuscitation (University of Florida Health,

2021). *Posttraumatic stress disorder (PTSD)* was defined as a psychiatric disorder that occurs in those who experience, or are exposed to, traumatic events such as combat and war (American Psychiatric Association, 2021). This definition was important because participants may have suffered from or been diagnosed with PTSD. Awareness of PTSD was important in this study. Individuals can suffer from flashbacks and recurrent disturbing dreams related to the traumatic events experienced. Avoidance of people, places, and things that trigger traumatic memories, as well as arousal and reactivity alterations, occur in individuals with PTSD. There was the potential that participants could revert to some PTSD-like symptoms during or after interviews. Lastly, Doherty et al. (2020) defined *posttraumatic growth (PTG)* as a positive psychological change in persons who experienced trauma. This positive psychological change stems from their struggle with very challenging situations. There was a possibility that PTG indicators could fall within answers because of the proximity that PTG has to resilience.

Assumptions

The first assumption that affected this study was that people provided truthful answers to the interview questions. Research has indicated that study participants do not always truthfully answer research or interview questions, especially if the truthful answer is perceived as shameful or produces unpleasantness. Another assumption was that participants provided rich detail on their experiences. Recalling traumatic experiences may cause distress, triggering the participant to avoid reliving the trauma and feeling subsequent distress. Although there was the potential that participants felt some distress during event recall, the most thorough and rich descriptions provided the best data.

Truthfulness during member checking was another assumption because the participants were expected to be honest in their evaluation of how I coded their interview responses. The participants may not have provided honest feedback to avoid the perception as offensive; however, honest feedback allowed me to convey the true essence of the participants' experiences. There was also an expectation that every participant would complete their interview. However, if a participant had become significantly triggered, they might not have completed the interview, which was authorized as part of the informed consent process. This resilience study ran such a risk. Finally, there was an assumption that the nurses being interviewed had experienced psychological and emotional trauma. I may have encountered nurse participants who did not suffer psychological and emotional trauma, or nurses might have had varying severity of trauma.

Scope and Delimitations

The focus of resilience characteristics other than spirituality was chosen to understand better how military emergency and critical care nurses cultivate resilience in the environment of combat operations and traumatically injured service members. Many military service members whom the nurses treated were young. Some may have been younger than the nurses or of similar age, which may have caused feelings of anger, frustration, and sadness and induced compassion fatigue and burnout. By deepening an understanding of other resilience characteristics, I found which resilience characteristics were more prominent and shared among this population of nurses. This understanding may help restructure resilience training more specifically for these nurses.

Emergency and critical care nurses who served in the Air Force, Army, and Navy, including Reserve and National Guard, were included in the study population. The participants needed to have been retired or separated from active service. No active duty participants were used in this study. I wanted participants who had initial Afghanistan deployments. Many nurses had several deployments to Afghanistan between 2005 and 2010, but interview data from the initial deployment were most relevant to this study to gain the true essence of resilience. Subsequent deployments would have variable levels of resilience different from the initial deployment.

Two theories that are closely related to resilience but follow different philosophies are the stress and coping theory by Lazarus and Folkman (1984) and cognitive behavioral theory (Foa & Kozak, 1986; Mowrer, 1956), which is a set of theoretical approaches of various behavioral theories. Stress and coping theory, developed by Lazarus and Folkman (1984), postulates that individuals constantly appraise their environment and situations to reconcile challenging situations as "favorable, unfavorable, or unresolved" (Biggs et al., 2017, p. 352). Various emotions are processed to arrive at a resolution to cognitive processes; this may end in successful or unsuccessful resolution. However, working through stress with coping mechanisms is not the same as actively working through traumatic experiences to learn growth patterns and self-shield from similar experiences, if experienced, in the future. Cognitive behavioral theory posits that cognitions affect how one develops and maintains emotions and behavior within life situations (González-Prendes & Resko, 2012). People learn how to behave and respond emotionally depending on how they experience life situations.

However, when negative circumstances present themselves, individuals learn to avoid them rather than face them and learn how to appropriately work through an ordeal to learn positive mechanisms that will allow for positive reactions in the future. González-Prendes and Resko (2012) noted this as the reason for avoidance mechanisms in PTSD. Although both theories are related to resilience, they were not appropriate for this study design and subsequent answers to the research question.

This study is not generalizable; however, it may be transferable to civilian emergency and critical care nurses and other military healthcare personnel. Study findings may also be transferable to military members who are considered frontline combatants. Frontline combatants are service members who engage in fighting and witness immediate trauma from comrades getting injured or killed.

Limitations

Several limitations of this study existed. First, other researchers may not replicate this study because of the population and methods used. Journaling to track all methods, the population, and how narrowed the focus was provides a road map to attempt a similar study. Still, there is no guarantee that another study will produce the same results. The inability to generalize the findings of this study was another limitation. Minor generalizations may be possible, such that findings may pertain to civilian emergency and critical care nurses, but not all nurses. Furthermore, findings may pertain to other military healthcare workers, but not all of them. Moreover, the semi structured interview questions disallowed generalizability because they were specific to military nurses deployed to Afghanistan. Finally, the study was limited due to reliance on participants to

be truthful and thorough in their responses to interview questions. Similar to this being an assumption, there was no way to ensure that participants were truthful and detailed in their responses, so I must trust the response data. Furthermore, memory recall of events may not have been as sharp after so many years since deployment, representing another limitation.

Bias was a significant issue in this study due to my proximity to the subject matter. I had to be very conscious of bias because (a) I am a critical care nurse who has been deployed to Afghanistan and has taken care of traumatically injured service members, (b) I am a military nurse intimately familiar with the deployed environment in Afghanistan, (c) I know the changes in military resilience training over the years, and (d) I have gone through intensive mental health treatment to overcome PTSD and strengthen my own resilience. Bracketing was very useful in overcoming bias. Patton (2015) noted that bracketing requires researchers to set aside their knowledge or ideas of the phenomenon of study to analyze data in their pure form without presuppositions. Bracketing took practice during the data analysis phase of the study. Another way that I overcame bias was through transparency. Journaling and reflexive writing throughout the study, specifically related to thematic development, decreased the likelihood of bias. Last, validating participant data through member checking reduced bias.

Significance

This study was significant because it helped identify more resilience characteristics of military nurses than just spirituality, which had been a focus in the literature (Simmons et al., 2018; Ormsby et al., 2017). Furthermore, this study identified

resilience characteristics targeted to the restructuring of resilience training. Improved resilience training may be taught to military emergency and critical care nurses in preparation for their deployments, where they will care for traumatically injured individuals.

This study has a few implications for positive social change. First, findings from this study supported the need for more widespread and improved resilience training for emergency and critical care nurses in the military. Moreover, findings supported the need for resilience training tailored to other healthcare workers and military personnel, instead of a one-size-fits-all approach. Education efforts to build resilience in healthcare workers and military personnel can help prevent the severity of posttraumatic stress that these professionals may develop due to their exposure to traumatic events. Furthermore, the Air Force Nurse Corps leaders identified six study priorities for military nursing research. Of the six, two are directly affected by this study: having a fit and ready force and providing care in the military environment (Air Force Medical Service Knowledge Exchange, n.d.). Improving the resilience of nurses who will be first-line caregivers to traumatically injured service members ensures their fitness and readiness to deploy while ensuring resilience in the military-specific environment. With these priorities in mind, this study further contributes to positive social change by improving the understanding of the importance of resilience development in military nurses caring for traumatically injured patients.

Summary

In summary, this chapter provided the background for the need to study the resilience characteristics of military emergency and critical care nurses. The problem statement, the purpose of the study, research question, and nature of the study expounded on the reasons for this study. Definitions, assumptions, scope and delimitations, and limitations delineated key concepts within the study. Last, in addressing the study's significance, I outlined this research's positive social change impact. This chapter included concepts of resilience to be addressed, in addition to glimpses into how I conceptualized this study. The next chapter provides an in-depth look at the literature and well-rounded articulation of resilience concerning military nursing.

Chapter 2: Literature Review

Introduction

The research problem was that little information existed in the literature regarding resilience characteristics of military emergency and critical care nurses other than the spirituality characteristic. There was a need to discover other resilience characteristics that nurses might rely upon or develop to bounce back from the traumatic injuries they treat while deployed. Therefore, the purpose of this phenomenological study was to explore the lived experiences of resilience among military emergency and critical care nurses who cared for traumatically injured service members at Craig Joint Theater Hospital, Bagram, Afghanistan, between 2005 and 2010.

The current literature was rife with studies conducted with military service members from each branch. Due to the plethora of literature, the focus for this literature review and study was narrowed to military resilience, nurse or nursing resilience, PTSD, PTG, and studies specific to resilience theory. The current research consisted of quantitative, qualitative, and mixed methods studies. Quantitative studies focused on resilience indicators from varying scales, such as the Connor-Davidson Resilience Scale, Post-Traumatic Stress Disorder Checklist—Military Version (PCL-M), and Post-Traumatic Growth Scales. Other scales included the General Self-Efficacy scale (GSE), the 3 Question Defense and Veterans Brain Injury Center (DVBIC) Screening Tool, and the Patient Health Questionnaire 2 (PHQ-2). Qualitative studies addressed generalized resilience, though they mainly focused on the spirituality characteristic of resilience. The spirituality and generalized foci were the reason for this study because there are many

more characteristics of resilience than spirituality that can and should be explored with military emergency and critical care nurses. The few mixed methods studies solely focused on spiritual resilience, leaving much more to be explored.

This chapter encompasses the search strategy used to locate relevant literature, the theoretical foundations of resilience, and the key variables and concepts of resilience and its many applications to and for military emergency and critical care nurses. An exhaustive review of current resilience research addressed resilience theory, military nurses and other healthcare personnel, emergency and critical care nurses, resilience biomarkers, military resilience training, and deployment and resilience. These topics were incorporated into specific sections on resilience theory, biometrics resilience, deployment and resilience, military resilience training, nursing resilience, and the spiritual characteristic. Some literature in this review may seem unrelated to resilience in military emergency and critical care nurses; however, such research supports for compulsory considerations when conducting future resilience research with military nurses. Understanding these considerations will guide better study proposals and expand research realms to other military personnel.

Literature Search Strategy

The majority of literature was found through searching the Walden Library using Thoreau. Thoreau allows the search of all databases within the Walden Library, making the literature search easy. I also used the SAGE database to collect literature specific to qualitative methods. Finally, I used Google Scholar to locate literature and then used the Walden Library to download the articles and citations. Search terms used to locate

articles were: *nurs**, *nursing*, *nurse or nurses or nursing*, *military nurse or military nursing*, *military*, *military or armed forces*, *resilience*, and *deployment*. Iterative search strategies included using one word per line of the Thoreau search and changing the order of the words. The second-order search process included the combination of words such as *nurse or nurses or nursing AND military or armed forces AND resilience*. All combinations and ordering of words produced a focused, exhaustive list. I also used Google Scholar to search for research using Polk's (1997) resilience theory. Once articles were located in Google Scholar, I then found and downloaded the articles and citations from the Walden Library. Several pieces of grey literature, specifically very recent dissertations on resilience, were used to locate additional resilience literature pertinent to this study.

Theoretical Foundation

The theory grounding this study was Polk's (1997) middle-range theory of resilience. Her seminal work, "Toward a Middle-Range Theory of Resilience" (Polk, 1997), synthesized and defined resilience for nursing. Polk identified four patterns of resilience and aligned all characteristics and attributes of characteristics. Polk's synthesis and construction of a nursing model of resilience stemmed from a nonstandardized definition or operationalization of resilience. Scientific groups, such as theology and psychology, had produced many ideas about resilience and attempted many definitions, yet they did not converge on any standardization. Her synthesis also incorporated the work of authors such as Block and Block (1980), who discussed resilience as a trait when addressing ego resilience. They claimed that resilience is an inherent trait, but they only

touched on the operationalization of resilience. Moreover, Polk cited Rawnsley's (1985) understanding of nursing care, wherein patients are assisted along the growth and development health continuum as a "progression toward wellness" (Polk, 1997, p. 2). The growth, development, and process concepts that Polk synthesized, along with all key resilience descriptive terms, led her to identify 26 clusters of resilience phenomena, which she further synthesized into six attributes; she then consolidated those attributes into four patterns of resilience. The most compelling takeaway from Polk's theory development is her insight that all resilience attributes are observable, developing over time and promoting resilience as a process; this will be an important concept as I progress through this chapter. Polk further synthesized that through processes, the human energy field interacts with environmental energy fields, which resonate with each other and the patterns of resilience.

The four patterns that Polk (1997) identified through synthesis are dispositional, relational, situational, and philosophical. Spirituality lies within the philosophical pattern and was the focus of the mixed methods and qualitative literature under review. Characteristics included in the dispositional, or ego resilience, pattern are physical robustness, athleticism, good health, higher intelligence, and self-control, to name a few. The relational pattern consists of those characteristics that hold social meaning and connections, such as deep commitment to relationships, social intimacy, social support, relating to positive role models, and job competence. Coping-type characteristics, such as active problem-oriented coping, less avoidance coping, ability to gauge capacity to respond to situations and follow through as required, realistic expectations,

determination, perseverance, persistence, and sense of control, are part of the situational pattern of resilience. Last, the philosophical pattern of resilience encompasses reflection about oneself and events, a belief that lives are worthwhile, perception of oneself as worthwhile and meaningful, faith in the formation of a positive vision of the world, a conviction that good times lie ahead, and a strong sense of personal integrity. The characteristics and attributes mentioned are not all-encompassing but provide descriptions to understand each pattern.

Throughout my literature search, I attempted to find studies that used Polk's (1997) middle-range theory of resilience but was unsuccessful. Ausar et al. (2021) conducted a scoping review of nurse spiritual self-care that included two authors (Flickinger, 2017; Ormsby et al., 2017) who used Polk's theory. Of these, Flickering's (2017) work was a dissertation, and Ormsby et al. (2017) did not explicitly mention the middle-range theory of resilience as their framework, yet much of their vocabulary clearly referenced Polk's theory. Karairmak and Figley (2017) referenced Polk as they presented the trait hypothesis of resilience. Dispositional characteristics of resilience include self-worth, self-esteem, and self-confidence; however, Karairmak and Figley purported that these characteristics, which Polk synthesized as dispositional, are trait-based resilience. No other literature was grounded in Polk's theory of resilience. However, all the literature alludes to many of the characteristics of each of the four patterns.

I chose the middle-range theory of resilience (Polk, 1997) to ground my study because I was drawn to this theory during the course NURS 8110: Scientific Foundations

for Nursing Practice. During the course, we were asked to review theories that we were drawn to or thought would ground a study subject of interest. As a military nurse who had completed multiple deployments by that time, I had identified resilience as my passion. From that point, I began the work on this dissertation journey. As I began developing the prospectus and engrossing myself in the literature, I identified that only the few research articles mentioned above used or touched on Polk's (1997) theory of resilience, which solidified my decision to ground this study in this theory.

Polk's middle-range theory of resilience grounded this study because I wanted to explore lived experiences of resilience in military emergency and critical care nurses who cared for traumatically injured service members. Polk's theory encompasses the constructs of identifying a patient's ways of overcoming injury and illness to the nurses' finding ways to transcend the trauma of caring for these service members. Therefore, I found it instrumental in using this theory to identify other characteristics of resilience that nurses possessed and cultivated to get through those deployments besides spirituality.

Resilience, as a singular concept and phenomenon, must be viewed from a multidisciplinary and multifactorial perspective (Barrett et al., 2021). No discipline, philosophy, or factor explains resilience in its entirety. Barrett et al. (2021) cited authors who used similarly worded definitions of resilience, such as "bouncing back" or "returning to normal" after an adverse event. However, others have noted that individuals do not "return to normal." Instead, they attain a new state of functioning or transcendence. Resilience is also described as a capacity with which one overcomes adversity and learns how to overcome future adverse events while minimizing damage or

disruption from such events (Barrett et al., 2021). Military nurses who have deployed to the Level 1 trauma center in Afghanistan embody the concepts of returning to a functional state after their sustained trauma in treating severely wounded patients, as described by an article titled “You Never Come Back the Same” (Ormsby et al., 2017). Furthermore, Barrett et al.’s literature review support empirical evidence that resilience is learned and developed over a lifetime, refuting those who state that resilience is a trait or an outcome.

The system theory of stress, resilience, and reintegration was proposed as a melded framework of Neuman’s systems model and the transactional model of stress and coping, explaining the transition of military personnel to civilian life (Etchin et al., 2019). This theory is specific in that it incorporates a multifactor framework of family, community, and workplace that changes from a military to a civilian context. Moreover, during the military-to-civilian transition, military personnel undergo primary and secondary appraisals of stress related to each family, community, and workplace factor and navigate stressors based on previous coping mechanisms (Etchin et al., 2019). Resilience levels will either continue to develop during transition or not, based on previous experiences. Individuals may possess innate resilience, but resilience is also learned and acquired throughout life (Etchin et al., 2019). Social support, which is one factor necessary for resilience development, spans family, community, and the workplace, impacting military-to-civilian transition. It is evident through Etchin et al.’s (2019) study that multiple social factors within family, community, and workplace are incorporated into resilience theory.

A key source of information on theory and definitions related to resilience is Southwick et al. (2014), who presented interdisciplinary perspectives on resilience theory, definitions, and challenges. Though their work is slightly older, it was seminal to this study. It is curious to note that many researchers have viewed resilience as either a trait, a process, or an outcome. Research related to trait-based resilience has indicated that individuals are either born with resilience or are not. However, most researchers have discussed resilience in the literature as a process, describing it as adaptation, a trajectory, and similar terms. Further evidence suggests that resilience is a process due to how individuals change over time and in the context of a situation or environment (Southwick et al., 2014). When resilience is described as an outcome, it is described as an endpoint that an individual reaches, which could not be further from the truth. As part of Southwick et al.'s research panel, Yehuda noted that resilience could co-occur with PTSD, which was highly relevant to my study with military emergency and critical care nurses. Yehuda's insight indicates that although individuals may have PTSD, they do not surrender to the deleterious effects of PTSD; instead, they use active decision-making based on lessons learned to continue moving onward.

The research question (What are the lived experiences of resilience of military emergency and critical care nurses who cared for traumatically injured service members between 2005 and 2010?) explicitly relates to Polk's (1997) theory of resilience. This study built upon the existing literature by identifying resilience characteristics besides spirituality because I did not focus on a specific characteristic. As told through interviews, military emergency and critical care nurse experiences shed light on other

resilience characteristics that can be researched in future studies. The theory and research question also challenged concepts in the literature related to resilience as trait-based and as an outcome. I will explore these concepts here.

Conceptual Framework

This study focused on the phenomenon of resilience. Within the literature used in this review, many authors used a definition of resilience that is similar to the following: the ability to bounce back after an adverse event or adversity (Abraham et al., 2018; Corlett & McConnachie, 2021; Crabtree-Nelson & DeYoung, 2017; Karairmak & Figley, 2017; Ledesma, 2014; Ramalisa et al., 2018; Reyes et al., 2018; Schmidt & Haglund, 2017; Shackelford et al., 2019; Southwick et al., 2014; Vyas et al., 2016). Other definitions conveyed the same meaning using different words, and the authors of some studies did not define resilience but used this phenomenon as the foundation of their research.

Karairmak and Figley (2017) were instrumental in furthering the understanding of the resilience phenomenon, albeit in controversial ways. Their trait-based resilience study was provocative due to their claim that there was a lack of a unified theory of resilience, even though Polk published her middle-range theory in 1997. The authors may have overlooked Polk's theory because Polk (1997) wrote it as a nursing theory and not a general theory. However, Karairmak and Figley also noted variations in resilience definitions and theory in their literature review. Their argument that resilience is a trait was based on literature by Wagnild and Young (1993) and Bartelt (1994), who hypothesized that the resilience trait is strengthened and reinforced by adversity.

Furthermore, Karairmak and Figley argued that personal characteristics of resilience are traits of an individual. Their study postulated that resilience exists whether or not adversity is present. In what they termed a longitudinal study, Karairmak and Figley queried undergraduate social work students at two time periods during one semester to determine if participant resilience changed when presented with adverse situations. The Ego-Resilience Scale (Block & Kremen, 1996) was used to analyze the results. The authors made the resilience trait-based claim based on their very narrow study methodology. Although the outcome was biased and heavily skewed, their publication imparts relevance to the study of resilience. An example of such relevance lies in their background information, which relied on Klohnen's (1996) assertion that ego-resilience predicts "effective functioning and adjustment in all life domains" (p. 94), supporting a trait hypothesis. Klohnen further suggested that individuals simply have effective problem-solving skills (Karairmak & Figley, 2017), with no acknowledgement of other factors acting on an individual or the individual interacting with the environment. It is important to appreciate Karairmak and Figley's contribution to the study of resilience, as aspects of trait-based resilience could be considered when studying military nurses.

The phenomenon of resilience has been used to frame studies of military service members, many of whom are healthcare personnel. These studies have explored resilience through the lenses of PTSD and PTG (Doherty et al., 2020; Gibbons et al., 2014; Swearingen et al., 2017), loyalty to team and teammates (Abraham et al., 2018), deployment experiences (Ma et al., 2021; Rivers & Gordon, 2017), veteran students (Shackelford et al., 2019), spirituality (Simmons et al., 2018), treatment-seeking

behaviors (Hernandez et al., 2016), and other mental health consequences of service (Ganzer, 2016).

Military nurses who served in the Iraq and Afghanistan wars developed PTG, a psychological change resulting from struggling with challenging life experiences (Doherty et al., 2020). Although nurses experienced significant trauma during these conflicts, they were able to find appreciation for life, found themselves open to new possibilities, and could effectively relate to others, as the findings revealed. Aeromedical evacuation (AE) nurses and technicians, including Critical Care Air Transport Team (CCATT) members, were shown to have increased rates of PTSD due to the high-acuity trauma they cared for and transported around and out of operational theaters (Swearingen et al., 2017). Furthermore, AE and CCATT nurses and technicians demonstrated reluctance toward mental health-seeking behaviors, therefore, having lower resilience. Mental health seeking could impact the careers of AE and CCATT personnel due to the specialized nature and regulations surrounding these jobs. Although nursing personnel should have sought mental healthcare due to significant stressors and PTSD, many continued to fear career repercussions and stigma even though senior leaders and supervisors supported access to care (Hernandez et al., 2016).

Military healthcare personnel in the major trauma military treatment facility (MTF) cultivated resilience through socialization with coworkers discussing emotions, and having informal debriefings after major traumas (Gibbons et al., 2014). These healthcare workers also relied on close friends whose relationships were forged in theater, promoting the relational aspects of resilience. Furthermore, Gibbons et al. (2014)

found that frontline healthcare personnel compartmentalized traumatic experiences until they felt ready to discuss them with others, allowing personnel to focus on the mission.

Army combat medics identified resilience in the form of forging loyalty with each other. Bonding through performance and leading by example were identified as relational resilience attributes of combat medics who experienced some of the worst trauma situations during wartime operations. The most resonant aspect of this article was that it was a product of the Soldier Medic Mettle Study, of which the lead author, LTC David Cabrera, was killed in action in 2011. One of the authors of this article is currently my nurse scientist mentor, who forged friendships with him and other combat medics who were instrumental to this publication. My nurse scientist colleague and mentor has shared first-hand experiences of working with these medics and exhibits a living embodiment of resilience daily.

Military nursing in the context of deployment was an integral concept of this study. Not all deployment experiences are equal, which is true when discussing military nurse deployments and resilience. While military nurses have similar experiences, such as being in the same environment together, returning home differently from when they left, and learning the true chaos of frontline trauma care, major differences are found with different types of deployment (Rivers & Gordon, 2017). Diverse deployment environments challenge military nurse resilience. Nurses expressed that disaster deployments consist of completely unknown factors and situations compared to war deployments where the mission is known and consists of more certainty with stabilized MTFs, record keeping, and supply chains (Rivers & Gordon, 2017). Additionally,

disasters lack structure, as compared to war operations. Due to these differences, military nurses are trained to be ready for all types of deployments. However, they find themselves less prepared for disaster deployments regardless of training, which strains their resilience mechanisms. Furthermore, nurses' experiences vary based on the different phases of deployment: preparation or predeployment, intradeployment, and postdeployment or reintegration. Sharing experiences among each other through the phases of deployment has led to increased resilience among military nurses (Ma et al., 2021). Additionally, the shared experience of transitioning from civilian care (Reservists and Guardsmen) to military emergency and trauma care proved stressful and challenging; however, teamwork and bonding (relational resilience) led to growth. An important issue concerning reintegration and resilience is the misconception that once the military nurse is home, all is well, and everything returns to normal. Reintegration is challenging because of the decompression from the high-stress, high-tempo environment in the operational environment to the slower-paced, nonstressful environment of home (Ma et al., 2021). Moreover, military nurses experience stress upon reintegration due to the immediacy of family and friends wanting to see them though they do not understand what their deployed loved ones experienced in the operational setting. When military nurses express their need to settle into the home environment, it can be construed as being dissociative; however, support from family and friends in the form of understanding the need for decompression is instrumental for the military nurse's resilience (Ma et al., 2021).

More resilience examples in military personnel come from the work of Shackelford et al. (2019), who studied military veterans returning to school. Many veterans experience academic difficulties due to PTSD and depression, though some have also suffered traumatic brain injuries. Some veterans have cultivated the resilience necessary to succeed academically, particularly when social networks are robust (relational resilience). However, others require support services to manage depression and PTSD, and other issues related to transitioning from military to civilian life.

En route care military nurses, AE and CCATT, have relied on their spiritual beliefs to bolster their resilience during deployments (Simmons et al., 2018). Simmons et al. (2018) focused on the specific resilience characteristic of spirituality, which proved important to AE and CCATT nurses, providing strength to continue missions transporting severely injured service members to higher levels of care. Simmons et al. noted that AE and CCATT nurses might need additional support services to further strengthen the spiritual aspect of resilience and other resilience characteristics. Although military nurses experienced the horrors of combat-inflicted traumas, they also suffered additional traumas causing PTSD and challenging their resilience, namely sexual assault of either themselves or other female military members (Ganzer, 2016). Sexual assault adds to PTSD developed from combat exposure, further challenging resilience and strengthening the argument that additional training and resources are needed to make the military more resilient.

Literature Review

A large amount of resilience literature exists, so for this study, I narrowed the focus to resilience literature directly related to the military, including military nursing. Using a narrow focus allowed me to manage the key variables pertinent to resilience in military personnel, much of which were specific to military emergency and critical care nurses. I opened this chapter with the theoretical framework and the phenomenon of resilience as it applied to deployments and post-deployment sequalae followed. The remaining variables related to resilience include resilience biomarker studies, emergency and critical care nurse resilience, military resilience training, service member resilience, and spiritual resilience. Biomarker studies on resilience postulate prescreening service members to determine whether or not they will have the ability to be resilient. Emergency and critical care nurses in the civilian sector have many of the same resilience challenges that military emergency and critical care nurses experience and are, therefore, relevant. Next, I explored the inner workings of current military resilience training. I explained how it helped or hindered resilience of military service members, to which emergency and critical care nurses belong, and the focus of this study. I also discuss service member resilience and what the literature states promotes or suppresses their resilience. Last, I reviewed spiritual resilience as a singular resilience characteristic.

Biomarking Resilience

Quantitative studies that target certain biomarkers in military personnel and veterans suggest an ability to preidentify whether someone will or will not be resilient. Head scans of participants that were studied to determine whether resilience biomarkers

exist have revealed specific areas of the brain affected by trauma and subsequent processing of the event (Stevens et al., 2021). Magnetic resonance imaging (MRI) highlighted brain areas responsible for reactions to trauma and post-trauma event stimuli. The researchers were able to map regions of the brain through MRI to determine if participants became risk-averse or resilient to trauma. If such a design were used with military personnel, a pre/post design would be needed to potentially biotype resilience; however, this would require a massive undertaking, and scientists are not yet there. Nevertheless, this study on a small sample showed promise.

In another biomarking endeavor, a theory suggests that gene identification could predict whether one would develop PTSD or be resilient to trauma. Maihofer et al. (2021) researched whether they could identify genes and traced them to specific brain regions to predict whether someone would develop PTSD or be resilient. The researchers also posited that such gene identification in military members could identify those who are predisposed to PTSD and provide them trauma socialization and resilience education to increase resilience regardless of lifetime exposure to trauma. While this research showed promise, much work still needs to be done. Furthermore, the severity of PTSD would need to be defined since the evidence shows individuals can have PTSD and still be resilient (Southwick et al., 2014).

Research into heart rate variability and cognitive bias feedback interventions in military members, was conducted to determine whether cognitive behavior training prevented PTSD. A pre/postdeployment randomized controlled trial of military service members examined how cognitive behavioral therapy (CBT) affected heart rate,

hypothesizing that CBT would moderate heart rate (Pyne et al., 2019). Several findings from this study include the fact that older study participants, regardless of previous combat exposure, had lower PTSD per the PTSD checklist. Those who used the cognitive bias module application were younger and had no combat zone experience also had lower PTSD scores. Biomarking heart rate trended lower for those who participated in resilience training, supporting the importance of predeployment resilience training.

Angosta et al. (2020) studied cardiovascular disease biomarkers in veterans to determine whether they were elevated in those with low resilience or decreased in those with high resilience. Study variables included veterans with and without PTSD, knowledge related to cardiovascular risk factors, and resilience as measured by the Connor-Davidson Resilience Scale (CDRS) – 10. Overall, participants who lacked knowledge of cardiovascular risk factors also had higher PTSD scores and lower resilience scores. Contrarily, those with high knowledge of cardiovascular risk factors were categorized as having low PTSD based on their primary care PTSD screener and high resilience as evidence of their CDRS – 10 scores. Demographics that were significantly correlated with low cardiovascular risk factor knowledge, high PTSD, and low resilience include never married, being a smoker, doing low or no exercise, and being overweight or obese. These indicators may be monitored and evaluated before a member’s retirement or separation from the military, thereby improving all factors and building resilience.

Emergency and Critical Care Nurse Resilience

Emergency and critical care nurses are viewed as resilient because of the types of patients and situations they encounter in their daily work environments, having a persona of being tough. Yet, more is being discovered about how these nurses develop and cultivate resilience, instead of simply possessing it. The evidence that supports emergency and critical care nurse resilience development in the civilian sector is equivalent to military emergency and critical care nurses. One main difference related to the environment military nurses work in is the deployed environment. Regardless, military emergency and critical care nurses faced the same resilience challenges as civilian emergency and critical care nurses with the added exposure to grave trauma when at CJTH.

Environmental factors can constrain or promote resilience. Emergency nurses face daily challenges of acuity and volume of patients (Schmidt & Haglund, 2017), in addition to the possibility of violence perpetrated by patients or visitors (Park et al., 2017; Ramalisa et al., 2018; Henshall et al., 2020). These factors also exist in the deployed emergency rooms and intensive care units. Additional factors that challenge emergency nurses' resilience, as well as most other nurses, are heavy workloads, varying organizational changes, staff turnover, and intra-nurse bullying and abuse (Henshal et al., 2020). Nurses can increase resilience through debriefings and organizational standard practices that support nursing, such as appropriate staffing, mentoring, continuing education, and hardiness (Tubbert, 2016; Cusack et al., 2016; Park et al., 2017; Ramalisa et al., 2018). One argument Park et al. (2017) made is that expressions of hardiness in

emergency department (ED) nurses are a trait possessed by nurses, but then went on to say that hardiness is cultivated and enhanced, meaning nurses learn it through a process. As mentioned earlier, these are not the only authors (Southwick et al., 2014) who contradict themselves when discussing resilience, in one sentence stating it is a trait and in another stating it is learned, a process, or a trajectory.

The impact of learned self-assertiveness and self-expression as resilience characteristics (Park et al., 2017) is pertinent when discussing the current level of resilience as hardiness. The relational pattern of resilience focuses on social support characteristics noted throughout the literature. Debriefings in the ED are evidence of such social support. Debriefings allow for discussions on processes that worked for the team and those they can improve (Schmidt & Haglund, 2017). As the debriefing discussion continued, the socialization among the nursing staff and other ED healthcare providers flourished. Other social factors that enhanced resilience in ED nurses included mentoring and clinical supervision (Cusack et al., 2016), which strengthened the physical and psychological environments of ED nurses.

Ongoing education, whether on-the-job training or formal education, has increased resilience in ED nurses and other nurses. Certified ED nurses were found to be decisive decision makers, flexible yet creative, have high levels of self-control, and have increased perseverance (Tubbert, 2016). Of note, nurses with higher education and certifications were also older. They had more experience working in the ED, which must be factored when discussing resilience, given the evidence of resilience as a process. Other researchers have shown evidence that higher education levels directly impact

nurses' resilience (Manomenidis et al., 2019; Öksüz et al., 2019). Workplace continuing education, much of which was in the form of self-care education (Henshall et al., 2020), has been shown to improve resilience among nurses compared to those who lacked such opportunities (Ramalisa et al., 2018).

The emergency room (ER) is considered the nexus of a hospital since that is where most patients enter the organization. An organizational resilience study discussed the occurrence of adversarial events at specific levels within an organization and how the adversarial event may or may not impact the organization as a whole. Kahn et al.'s (2018) work describe an isolated adversarial event that may occur in the ER and not affect the organization. When such adversities at a specific level are not addressed, rumination occurs and spreads further into the organization, such as areas that support the ER. Integral parts of understanding organizational resilience include the following: intergroup facets and how they respond to the focus of strain; intergroup boundaries and how well members move between and among groups, especially to the focal point of adversity to assist; and integration where the point of synchronicity of parts work toward to focal point to repel adversity (Kahn et al., 2018). The military organization suffers from these issues, magnified by the scope and breadth of the military organization. Still, these adversities occur in sub-organizations, such as medical treatment facilities (MTF). As described by Kahn et al.'s (2018) emergency department scenario framing this research, the same occurrences appear in MTFs, including deployed MTFs. One significant difference in the deployed MTF, such as Craig Joint Theater Hospital (CJTH), is that resilience of the organization is high due to mission-focused care of the war

injured. Yet, this level of organizational resilience does not exist in garrison. MTF's personnel may increase its organizational resilience as a starting point. As military emergency healthcare personnel resilience increases, so too will organizational resilience.

Critical care nurses face resilience-promotion issues similar to ED nurses. The critical care environment differs from the ED in that ICU nurses provide long-term care to very sick, traumatically injured, and dying patients, which challenges resilience differently. Facing ethical dilemmas due to competing issues of personal and professional morality underscored the issue of moral resilience among critical care nurses (Sala Defilippis et al., 2020). Critical care nurses may face familial disruptions wherein family members may want the life of a loved one prolonged, although the patient is in the dying process. Moral dilemmas also occur because patients intentionally harm themselves through noncompliance with medical advice, substance abuse, or physical self-harm. Yet, these nurses must care for these patients in adherence to their hypocritic oath. Critical care nurses bolster their moral resilience as they find ways to come to terms with these issues.

A study of critical care nurses sought to determine whether staff could learn resilience through continuous on-the-job education (Babanataj et al., 2019). The main outcome was that the resilience educational program used in the study significantly decreased occupational stress and increased resilience. Teaching various strategies to critical care nurses, such as communication and social support system advancement, led to effective resilience training. These strategies also targeted self-esteem, further

promoting resilience. Last, the above ideas added to evidence that resilience is taught rather than simply existing.

Nurse resilience has been studied using a general approach. Delgado et al.'s (2017) literature review noted that the emotional labor of nursing could overwhelm nurses; however, as nurses learn self-management techniques, they build resilience against the stresses of emotional labor. One noteworthy observation from this literature review was that critical care nurses were among the most studied in relation to resilience. Another study identified job satisfaction and social support (relational resilience) as important components of resilience. On-the-job education and communication are factors affecting job satisfaction, appropriate staffing levels, and standard organizational policies. Moreover, social support from supervisors and peers to outside family and friends contributed to resilience building among nurses (Öksüz et al., 2019). Despite of the evidence that social support in its various forms is a major attribute of resilience, the coronavirus – 19 (COVID – 19) pandemic has had a crushing effect on social support, leaving nurses and nursing students with additional resilience challenges. Nursing students will continue to replace the aging workforce; yet, during COVID – 19, they struggled with quality-of-life challenges due to lockdowns and quick transition to online learning (Keener et al., 2021). Students who did not have online educational experience suffered the most; unless they develop resilience, they may not overcome the struggles the pandemic wrought on their academic life. These nurses may then bring those unresolved struggles into the workforce. Not uncommonly, there is a belief that ED and ICU nurses can and should self-teach resilience to overcome the stresses leading to

burnout in the workplace (Watts & Thorne-Odem, 2020). Using techniques such as good sleep habits, mindfulness meditation, journaling, and exercise have been proven to relieve the daily stresses of ED and ICU work, allowing nurses to relax and refocus. The renewed focus going on a new workday allows nurses to be more present for patients, better manage unexpected situations, and develop resilience.

Military Resilience Training

Over the years, there has been some controversy within the Department of Defense (DoD) regarding resilience training and the outcomes and effectiveness of military personnel, including emergency and critical care nurses, who are the target of this study. Jeschke (2016) dove deep into this topic and found that the military implemented resilience training programs, one for the Army (BATTLEMIND) and one for the Air Force (Master Resilience Training (MRT) in 2011 to combat the suicide rates of military personnel due to difficulties adjusting postdeployment. Her research of these programs' quantitative data found that they failed to provide purported outcomes. As a recipient of MRT, I can attest that these findings are accurate. Furthermore, the MRT training has been diluted over the years. MRT started as a four-hour multi-pillar interactive training but now consists of a 30-minute lecture where a trainer tells participants how they are supposed to be resilient. Further evidence suggests that these programs are ineffective for the military because indoctrinating practices within each branch antagonizes resilience training efforts. For example, older Army soldiers indoctrinate younger soldiers to engage in excessive drinking to "blow off steam," which translates into the Army's form of resilience (Jeschke, 2016). These drinking habits

prohibit healthy resilience development and become difficult habits to break during the transition to civilian life.

The Australian military's resilience training proposed the use of self-reflection during resilience training to enhance the cognitive behavioral dynamics of the training, called BattleSMART, which is similar to the Army's BATTLEMIND (Crane & Boga, 2017). However, for self-reflection to enhance resilience training and ward off adverse reactions to stressors, leaders must implement the training systematically. Trainers other than mental health providers learn the skills to foster resilience training. Still, dedication to the program's purpose and objectives is required to sustain optimal outcomes for service members who receive the training.

Taiwanese military personnel, some of whom were nurses, identified the correlation between coping strategies and resilience (Chen et al., 2018). Those coping strategies were part of their military training and environment. Personnel who used the positive approach-oriented coping strategies, such as task-oriented coping versus avoidance coping, demonstrated lower PTSD scores and higher resilience scores on Ryff's Personal Well-Being (PWB), Brief COPE Inventory, and Resilience Scale for Adults scales. Chen et al. (2018) cited a longitudinal study of 122 United States Air Force (USAF) medical personnel and noted that repressor coping strategies were predictive of lower PTSD. These findings strengthen the argument for improved resilience training for the military.

A Cochrane systematic review analyzed various resilience training programs that were part of predeployment training; those programs demonstrated evidence of building

resilience to traumatic events. In the Cochrane systematic review, MRT was one of the programs whereby the study authors cited another researcher who purported MRT demonstrated positive resilience scores when evaluated after the implemented training (Doody et al., 2019). Yet, Jeschke (2016), and others she cited in her manuscript, dispute the positive evaluation of MRT. Conversely, there is evidence that an exposure therapy program demonstrates significant results for increasing resilience among emergency service personnel, indicating exposure therapy as the most promising type of predeployment training suggested for military personnel.

A literature review on the efficacy of resilience training programs in the military outlined a range of results, from no significant differences to strong evidence (Thompson & Dobbins, 2018). First, the Army's BATTLEMIND program reflected biased results. Second, a stress management audio-visual biofeedback approach used in Canada aligned well with resilience concepts, but this technique requires studying with the US military. Third, two-hour training on techniques to manage stress showed no difference in stress reduction under a computer-based training approach. Fourth, researchers used a mindfulness training program with the Marines to improve stress management, and the program demonstrated significant reductions in brain activity, indicating fast stress recovery. This method helped develop stress reduction mechanisms before experiencing a stressful event. This literature review provided supportive evidence the military could review and reconsider as a way to revamp and revitalize resilience training.

Hoge et al. (2016) showed that an Army-centric mental health resilience program aimed at providing mental health services with key initiatives of the right number of staff

at the right locations was shown to improve the resilience of Army soldiers. The program centralized the management of mental health services. It reorganized these services to best meet the needs of Army personnel, including embedded behavioral health providers, implementation of behavioral health in primary care, and screenings across a soldier's career (Hoge et al., 2016). The Air Force (AF) implemented a similar program in 2018 called Task Force True North (TFTN). Mental healthcare personnel were embedded into units across five Air Force bases as beta test sites. Minot Air Force Base (AFB) in North Dakota was one such base, and it is where I was stationed during beta test implementation. The purpose of embedded mental health personnel into base units is to provide readily accessible behavioral healthcare to personnel who struggle to get to the clinic or experience access to care issues due to the fixed number of providers at the base clinic. According to a RAND Corporation (2020) evaluation of TFTN, the program exhibited great potential to improve the resilience of Airmen. My personal experience with the TFTN program implementation was that it was well received by Airmen, who expressed gratitude for the increased access to care. However, stigma remained a reason not to seek help from the embedded providers. By providing embedded behavioral health resources, the services can help improve service members' resilience before operational taskings and through all stages of military service. Leadership is imperative to battle any remaining stigma related to behavioral health care.

Service Member Resilience

Throughout the 20 years the US has been at war and in conflicts, most notably in Iraq and Afghanistan, there have been studies describing the resilience of service

members, including nurses and other healthcare workers. These studies also articulated specific reasons and correlations for or against resilience. A study within the Brazilian military analyzed resilience instruments that could inform resilience, or lack thereof (Umann & Lautert, 2016). The researchers found compounding factors of military culture that led to occupational stress and decreased resilience, such as working long periods and in uncertain environments. Without resilience to military occupational stressors, personnel may develop presenteeism, which is working while sick, exhausted, or both. Working while sick and exhausted leads to decreased productivity and creates a vicious cycle of further illness and exhaustion while soldiers try to maintain the work schedule. Resilience training to combat occupational stressors can mitigate these military cultural issues and build a resilient force. The military cultural influences described by Umann and Lautert (2016) are quite similar to the US military. However, the US military maintains a culture of 24 hours per day/7 days per week/365 days per year readiness which may compete with individual and family dynamics. Hence, the necessity for resilient service personnel. Furthermore, before the COVID – 19 pandemic, it was not uncommon for military healthcare personnel, particularly nurses, to continue working while sick. Since the beginning of the pandemic, it has become more acceptable to refrain from work when ill which, aids recovery, and increases resilience but decreases staffing.

Another correlation of decreased resilience in the military is gender issues, specifically among female service members. In addition to occupational traumas of service, particularly during the Iraq and Afghanistan wars, female service members also suffered from discrimination and sexual harassment, and assault leading to increased

depression, PTSD, and low resilience (Thomas et al., 2016). One key determinant of resilience was social support from family, friends, and the community to support these females in overcoming the added trauma of discrimination and sexual assault. Social support may come in many forms, including marital relationships; however, one cannot assume that marriage provides such support (Thomas et al., 2016). A negative marital relationship may worsen the depressive situation. Military leaders must understand these female-centric issues to provide females with specific resources and mitigation strategies as part of resilience training.

Race, ethnicity, culture, education, branch of service, and social support all play a significant role in resilience among service members (Herbert et al., 2018). Certain cultures embrace stoicism rather than seek mental healthcare, as those cultures view behavioral health-seeking as weakness, which can compound resilience issues among this group of service members, though culturally, they view stoicism as resilience. Females in this study reported having higher levels of social support compared to their male counterparts. Marine veterans had less social support in comparison to Navy counterparts yet scored higher on resilience scales than all other military branches. This finding may be due to the evidence that Marines engaged in mindfulness training programs (Thompson & Dobbins, 2018) for their resilience training. Furthermore, the authors found that those with higher education levels demonstrated increased resilience on measurement scales. Education level can correlate with socialization, further enhancing resilience attributes.

Social connections and networks, in addition to positive self-outlook, meaning-making, spiritual practices, physical fitness, and appreciation for life were all resilience outcomes of the Joint Forces Initiative (JFI), “Have you served?” (Angel, 2016). Under this initiative, the task force empowered nurses to recognize symptoms of PTSD and care for veterans and active duty members with PTSD. The resilience characteristics discussed throughout the article pertained to posttraumatic growth. One notable argument from the JFI focused on the notion that those with PTSD are not resilient, yet within this article lies the statement that “veterans/ADM who are symptomatic of PTSD, may also experience PTG” (Angel, 2016), which indicates resilience per the definition of PTG. As stated earlier, veterans and service members with PTSD can still be resilient (Southwick et al., 2014), refuting this argument from the JFI.

Spiritual Resilience

Qualitative studies on military nurses and other healthcare workers focused on spirituality, spiritual care, and spiritual resilience. Such studies left a gap in the literature to gain knowledge about other resilience characteristics military emergency and critical care nurses may have relied on to overcome the trauma of deployment at CJTH. Although resilience training discusses spirituality or spiritual health as one of the five pillars of resilience, it is rarely considered a meaningful coping mechanism outside of training (Ormsby et al., 2016). In the hospital or home environment, the nurse provides spiritual care to family members; however, in the deployed environment, military colleagues become family, so nurses transition spiritual development to and with colleagues. Furthermore, the spiritual care nurses often render to patients in the deployed

environment is tested and strained when bonds form with patients and peers who then get injured or die (Ormsby et al., 2016). Military emergency and critical care nurses experience strained spiritual resilience often because of their proximity to patient injuries or death.

Researchers used a similar approach to study en route care nurses: Aeromedical Evacuation (AE) nurses or Critical Care Air Transport Team (CCATT) nurses. These nurses described the role spirituality, or belief in a higher power, helped them overcome the moral injury they experienced when transporting severely injured service members between military treatment facilities via fixed-wing aircraft (Simmons et al., 2018). Notably, nurses described spirituality as living by standards of accountability and belief in something greater than oneself. Moreover, nurses served as a conduit to patient spirituality, much like Polk (1997) described nurses' ability to tap patient resilience characteristics holistically. AE and CCATT nurses often suffer moral distress due to the nature of their work, which challenges their spiritual resilience. A lack of spiritual resilience, or an overwhelming strain on resilience, can lead to a lack of empathy and increased anger (Simmons et al., 2018), which is detrimental to the nurses' psyche and the patient's wellbeing. This study made a compelling argument that nurses were prepared clinically for deployment but little had been done to prepare them mentally and spiritually. This argument underscored my reasons for this study.

Summary and Conclusions

This literature review's major theme was resilience. Subthemes included resilience theory, emergency and critical nurse resilience, biomarking resilience research,

resilience among deployed veterans, military resilience training, service member resilience, and spiritual resilience. The literature is rife with evidence that resilience is a process and a trajectory, though there are proclamations of trait-based resilience. Individuals go through learning processes to cultivate resilience as any other skill. However, there are resources to aid the process, such as mental health cognitive behavioral therapy and various resilience training programs. Resilience was also multifactorial, consisting of ethnicity, culture, environment, beliefs, and social constructs, which converge at any one time and place, each playing a role toward resilience. There are numerous approaches to quantitatively document resilience with little qualitative support except for the spiritual characteristics of resilience. Although a significant amount of work has been done on resilience in the military population, some rather specific to military nurses, a lack of evidence describing the development of resilience characteristics other than spirituality remains. Additionally, the consensus on a standardized resilience training program does not exist, though the literature supports the revision of current programs. The lack of a standardized resilience training program begs the question of whether predeployment resilience training truly works to prevent depression and PTSD; nevertheless, the current literature suggests resilience training prior to deployment wards off PTSD due to the trauma faced by operational exposure is effective. This study helps fill the gap that predeployment resilience training should be required to prevent PTSD and expectation management. Furthermore, it fills the gap in recognizing there are more resilience characteristics military emergency and critical care

nurses develop other than spirituality when facing the traumatic experiences of treating severely injured service members.

This qualitative study sought to garner evidentiary support for resilience characteristics within the situational and philosophical patterns that military emergency and critical care nurses may have cultivated during their service of caring for the traumatically wounded in Afghanistan between 2005-2010. Again, the literature is rife with quantitative evidence; however, qualitative evidence remains lacking.

Chapter 3: Research Method

Introduction

The purpose of this phenomenological study was to explore the lived experiences of resilience in military emergency and critical care nurses who cared for traumatically injured service members at Craig Joint Theater Hospital, Bagram, Afghanistan, between 2005 and 2010. This chapter outlines the phenomenological research design and why I chose it. I outline my role as the researcher in this study, detail the methodology for participant recruitment, and describe the researcher-developed interview instrument used with participants. All procedures for recruitment, participation, and data collection are outlined, including the data analysis plan. Lastly, I provided an outline for achieving trustworthiness, along with delineating ethical procedures for this study.

Research Design and Rationale

Through this study, I sought to answer the following question: What was the lived experience of resilience in military emergency and critical care nurses who cared for traumatically injured service members in Afghanistan between 2005 and 2010? The central phenomenon was resilience, situated in Polk's (1997) middle-range theory of resilience. The specific resilience characteristics I hoped to reveal from this study are found within the situational and philosophical patterns of resilience.

Phenomenological research—more precisely, descriptive empirical phenomenological research—involves seeking the meaning of lived experiences through rich descriptions that participants provide while answering interview questions. Through a phenomenological approach, researchers can gain an understanding of experiences from

the study subjects' point of view (Rudestam & Newton, 2015), along with in-depth information that is helpful in understanding multiple dimensions of a problem (Queirós et al., 2017) using a constructivist paradigm and views with empirical research on lived experiences (Kordes, 2016). Moustakas (1994) stated that empirical phenomenology involves a return to the experience of the individual in order to gather comprehensive descriptions using reflective analysis, leading to the heart of the experience. Using an empirical phenomenological approach allowed me to gather and understand the lived experience of resilience from emergency and critical care nurses as they recalled their deployed time at CJTH and learned how they cultivated resilience. I sought participant experiences to gain knowledge on specific resilience characteristics and the meaning that participants gave to those characteristics. Bu understanding of resilience, could inform Air Force (AF) stakeholders about the importance of empirically validated resilience training.

Role of the Researcher

As the researcher, my role was to observe participants audibly and visually during interviews. When conducting face-to-face (f2f) interviews, the researcher can discern facial expressions, body posture and movements, and hand gestures—all nonverbal cues that add to the richness of data (Davies et al., 2020)—as the participant provides answers to the interview questions. However, if a f2f or video-recorded virtual interview is not possible, observation can occur audibly. Participant voice tone, inflections, and pauses provide a lot of information as the participant speaks, providing unspoken information in reference to the interview questions. Researchers are aware of the pros and cons of

interview types (f2f, telephone, virtual, email) and consider these when building their research. Researchers also consider which strategies will elicit rich data. Aside from the interview format, the study participants add to the richness of the data. Davies et al. (2020) noted that when open-ended questions are more generalized and when people are interviewed regarding their profession, data tend to be richer because the topic is more personal. With this information in mind, it was reasonable to assume that participants in this study would provide rich data because the interview questions were broad but directly relevant to their past profession of military nursing and resilience.

It was difficult to predict whether I would have known any professional relationships existed among participants because recruitment did not occur until after Institutional Review Board (IRB) approval. If any participants had become personally known to me as the researcher, there would have been no power differential; all participants were to be retired or separated from the military. The only known relationship was that the participants I had military critical care nursing experience.

The fact that I am a military nurse with extensive experience in flight and critical care nursing added perspective to this study. Although I never deployed to CJTH, I had firsthand knowledge of the treatments that the emergency and critical care nurses rendered to the traumatically injured service members they cared for due to my deployment to Bagram, Afghanistan as a flight nurse. This experience, coupled with experience as a Trauma Nurse Core Course instructor/director, potentially imported bias into this study. Acknowledging my clinical, deployment, and teaching experiences was the first step in managing potential bias. I had to take care not to read into interview data,

and I analyzed data from the perspective of an outside observer. I included bias management when analyzing data at face value and coding it as seen and not with personal beliefs. There were no foreseeable ethical issues. No power differentials existed with participants; I conducted the study outside my work environment and offered no incentives to study participants.

Methodology

For this study, I recruited participants using purposive and snowballing techniques. Purposive sampling consisted of sending my research invitation to boards of directors and asking board members to send my invitation to the organization's nurse members. The organizations intended for contact included the American Association of Critical Care Nurses (AACN), the Emergency Nurses Association (ENA), the Society of Air Force Nurses (SAFN), the Army Nurse Corps Association (ANCA), and the Navy Nurse Corps Association (NNCA). These organizations encompass military emergency and critical care nurses, providing the exact participant pool needed for this study. Another potential organization for recruitment was the Wounded Warrior Program, which I planned to use if the organizations mentioned above had not produced enough participants and snowballing was not effective enough. Snowballing was done through social media platforms like Facebook, targeting retired or separated veteran emergency and critical care nurses. My nurse colleague also shared my study invitation with veteran emergency and critical care nurses as another snowball sampling approach. Study participants must have been retired or separated military emergency and/or critical care nurses who served a tour at CJTH in Bagram, Afghanistan. The tour must have been the

first time that these nurses served at CJTH to gain insight into resilience development, which comes from experiencing trauma for the first time. Subsequent deployments would not have provided the same resilience experience due to the nurses' previous knowledge and experience in the environment. Participants must also have been over 18 years of age and not have been under active mental health treatment for PTSD or depression.

Volunteer participants were asked the inclusion criterion questions upon contacting me to validate that they were eligible and met the criteria for study participation. It was unknown how many participants would be needed for this study, as data saturation occurs once interviews produce no new information. If participants were waiting for interview appointments when data saturation occurred, they would be thanked for their volunteerism and informed that their interviews were no longer needed.

The study invitation included my email address and telephone number so that potential participants could contact me to volunteer for the study. Once a participant contacted me, they were validated using the criteria described above. The participant made an interview appointment and chose between f2f (if the participant was in the local area), telephone, or virtual. If the participant requested the virtual interview option, I notified the participant that there would be no video recording, only a voice recording of the interview in accordance with institutional policy. Participants were identified to me by name and phone number, which helped to build relationships. However, the results did not include identifying participant information.

Debate continues regarding the sample size needed for a study and when saturation occurs. Some experts contend that sample size depends on a study's

methodological perspective and complexity of a study (Baker et al., 2012), whereas others put numbers to guidelines (Mason, 2010). Creswell, a leading expert in phenomenological research, explained that in a qualitative phenomenological research study, a sample of five to 25 participants is needed (Guest et al., 2006). These guidelines provide supporting information explaining saturation, described as a consensus of data information and the point at which no new information is uncovered (Mason, 2010). Although the literature supports the above guidelines, a few professors advised me that I would not need more than 16 participants and that there was potential to reach saturation with smaller numbers. I did not set a number of required participants, as data saturation determined fulfillment of the research objective. The results present the final participant total.

Instrumentation

The data collection instrument was a set of researcher-developed interview questions that guided a semi structured interview. Interview questions were guided by Polk's (1997) middle-range theory of resilience, focusing on situational and philosophical patterns of resilience and personal experience in the deployed environment. My committee reviewed and approved all interview questions to ensure authenticity and alignment. All interviews were audio recorded and transcribed verbatim. I did not conduct video recording per institutional policy and I used no other data collection instruments.

Recruitment and Data Collection

Data were collected through semi structured interviews using the researcher-developed interview questions. If a participant was in my local area, I conducted the interview at an agreed-upon location that provided privacy and anonymity to the participant. I conducted all telephone and virtual interviews from my home. Regardless of how I conducted the interviews, I collected all interview data. I dispersed the interviews to avoid an overload of transcribing and preliminary coding so that I could become immersed in the data. I allotted a maximum of two interviews a day during data collection. The interviews lasted 30–60 minutes using an external audio recorder. During telephone interviews, I also used the recording capability of my smartphone as a backup recording device. Furthermore, during virtual interviews, I used the recording function on my computer in addition to the external audio recorder. Using the recording function ensured that I captured the interview entirely and a device malfunction did not cause a loss of information. If enough participants were not received through recruitment through the ENA, AACN, SAFN, ANCA, and NNCA and snowballing, I attempted recruitment through the Wounded Warrior Program and the local Veteran's Administration hospitals.

Participants received a debriefing at the conclusion of the interview so that they knew the interview had ended. During the debriefing, participants received information about receiving a transcribed and coded interview transcript to review. The participants could add clarifying remarks, add details, and validate my preliminary codes. I also informed them on how to obtain the study once published. The final study exit occurred when participants were informed that their participation was complete and no further

information was required. I did not anticipate the need for follow-up interviews. Follow-up with a participant occurred if a portion of the interview was very unclear or a significant probing question arose from the interview data that could elicit important information about resilience.

Data Analysis Plan

The data from the researcher-developed interview questions answered the research question: What are the lived experience of resilience in military emergency and critical care nurses who cared for traumatically injured service members in Afghanistan between 2005 and 2010? As the literature indicated, resilience is based on context amidst the environment, the trauma experienced, and processes used to overcome the trauma. The interview data once transcribed verbatim, were read in their entirety. I then put the data away to allow for analysis and reflection. Upon returning to the data, I conducted preliminary coding, identifying words or phrases that resonated with answers to each question. I utilized the same process for each individual interview as I conducted additional interviews. Starting with the second transcribed and Level 1-coded interview, I compared interviews to determine similarities in content and Level 1 codes. This process continued for all subsequent interviews. I formulated Level 2 codes as the number of interviews grew. Through this comparative process, I also analyzed the data for information leading to additional questions or edits to questions for subsequent interviews. As I conducted additional interviews, I began analyzing whether I attained saturation, as indicated by a lack of new information arising from the interview data. Once I reached saturation, I stopped conducting interviews and then started analyzing the

interview data for themes that emanated from the codes. At this stage, I conducted thematic analysis.

There was no plan to use software for analysis. However, if I determined that I needed software, I would use MaxQDA for coding and thematic analysis. If there were discrepant cases, I would analyze those data separately. The first step of analysis with discrepant data was to determine if it was only one interview or several. I would then analyze the discrepant data to identify themes amidst this data. I reported all discrepant data along with pertinent research data.

Issues of Trustworthiness

Trustworthiness in research is imperative, as it ensures high quality. Trustworthiness allows for research replication, which in qualitative research is difficult because the research outcomes will not be exactly the same due to the nature of the research. Regardless, there are steps that researchers must take to ensure that their study is credible, transferable, dependable, and confirmable.

Credibility

Qualitative research credibility is determined, in part, when study participants agree with the researcher's interpretations based on the interview data (Toma, 2011). Finding congruence between researcher findings, the participant, and what the readers get from a study further solidifies credibility. Creswell (2003) indicated that triangulation, member checks, and thick descriptions are among the strategies needed for credibility in qualitative studies. This study included thick descriptions of the data, member checking by participants, description of potential bias and how I countered such bias, and reports of

any discrepant findings as strategies promoting credibility. Data immersion adds to a study's credibility by allowing the researcher to concentrate on the study phenomenon—in this case, resilience. I maintained a reflexive journal to help consolidate thoughts and insights as data transcripts were read, reread, and coded. Reflexivity demands that researchers think deeply about how their background, culture, and experiences affect various interpretations and purported meanings of reported data. The use of reflection allows the researcher to identify any bias that may creep into data findings. Reflexivity helps identify potential bias, which was very important in this study because of my experiences as a military critical care nurse who knew the deployed environment. As I kept bias at bay, I found new meanings about resilience based on interview data. In addition to reflexivity, peer review helped validate the coding and thematic analysis of participant data. Peer review consists of sharing interview data and coding with a peer, who can be a fellow student or nurse scientist colleague. To strengthen the credibility of this study, I conducted peer reviewing with a fellow nurse scientist who was exceptionally well versed in qualitative design and methodology – peer reviewing validated coding methods and analysis.

Transferability

In qualitative research, transferability equates to generalizability in quantitative research. However, there is more to transferability than simply saying that a study relates to large swaths of the same or similar populations. Toma (2011) cited a few qualitative experts stating that transferability relates to the degree to which the setting, systems, and contexts link, in addition to using thick, rich descriptions so that others perceive the same

context when reading a study. Using thick, rich descriptions of the study data, codes, and themes will provide depth so others can easily understand the context and environment of participants. Other researchers will also be able to conduct similar studies using the same or a similar population and get similar results. There was no significant variation in participant selection because the focus was on military emergency and critical care nurses who deployed at a specific time in their military career and during the Afghan war. While this study may not allow transferability to other professional military groups outside of nursing, results could be transferable to other military nursing groups and civilian emergency and critical care nursing groups.

Dependability

A researcher attains dependability during data collection as the researcher is amenable to adding interview questions or reconfiguring questions based on previously collected data. The addition of interview questions leads, in part, to the nonreplicability of qualitative studies, though they can be similar. Other factors that bolster dependability include congruence of the study design and research questions, outlining the role of the researcher in the study, alignment of theoretical constructs and frameworks, and the appropriateness of and amount of data collected (Toma, 2011). The best way to ensure dependability is to detail how the study and data findings evolve at each junction. An audit trail was used to detail the study's evolution and provide a road map for replication. Triangulation also increases dependability. However, in this study, it was not possible to use other data sources or multiple researchers to validate coding and thematic analysis,

though peer reviewing was used. Therefore, triangulation may have been somewhat achievable in this study.

Confirmability

Researchers achieve confirmability when someone other than the researcher validates appropriately conducted data analysis. Furthermore, confirmability helps ensure that findings and interpretations link to the data while also ensuring alignment of all aspects of the study. I used member checking to confirm coded data was what the participants stated it was. I also shared transcribed and Level 1-coded data with the participants to determine if they agreed with the identified codes. The use of an audit trail detailing the study's framing, data collection, and coding methods also imparted confirmability. And finally, reflexivity was used to help confirm thematic outcomes as described above.

Ethical Procedures

I anticipated an agreement from the organization's board of directors to gain access to participants. The agreement consisted of a written agreement, formal or informal, stating that they would advertise my study invitation in their publications, such as newsletters and journals, and send the invitation out to their mailing lists. Institutional Review Board (IRB) approval was conditioned on my approved proposal and completed research ethics checklist. The IRB approval number was **05-09-22-0251652**.

There were no ethical concerns related to the recruitment of participants, as all criteria for participation were outlined above and provided in the study invitation. Those not meeting criteria should not have volunteered for this study. If someone attempted to

volunteer who did not meet inclusion criteria, they were politely thanked for interest and informed they did not meet the study criteria at that time. Participants recruited through snowballing required thorough inclusion screening once they contacted me to volunteer. Once a participant volunteered to participate in this study and was confirmed to meet all inclusion criteria, they were consented. Informed consent was a templated form provided by Walden University and edited with this study's information. Consent was voluntary, and the consent form notified participants they could rescind their consent and end participation at any time without penalty. The consent form explained to participants that their participation and conversations during data collection would be completely confidential. Consent also informed participants that study data required storage for at least five years, per institutional policy. I would store the data on an external hard drive, password protected, and kept in a fire safe box. Because resilience was the phenomenon of interest with participants discussing traumatic experiences while deployed, there was a risk one or more participants would experience an acute psychological reaction during event recall. Due to the possibility of this risk, the consent form included the phone number for the Department of Veterans Affairs Veterans Crisis Line (1-800-273-8255). Participants signed consent forms in-person when conducting a face-to-face (f2f) interview. All telephone and virtual interviews required an electronically signed consent form. I did not anticipate any power relationships with participants. Concealing all personally identifiable information outside myself ensured privacy. During f2f interviews, I ensured privacy by selecting an interview location agreed upon by the participant and myself. It would be in a location free from anywhere bystanders could

overhear. I conducted virtual or telephone interviews from a private room in my home with a door sign which stated: "do not enter or disturb." I maintained a single spreadsheet of identifiable information to match interview data to a participant; however, all data were de-identified, including when I shared data with committee members upon request or when peer reviewing. I maintained the spreadsheet on an external hard drive that was password protected and stored in a locked firebox; I did not maintain it on my computer. All data was confidential, and participants were made aware of this stipulation. I kept demographic and interview data on both my computer and external hard drive. My computer was biometrically and password protected, and the hard drive was password protected and stored in a firebox. My computer was always maintained in my home or was in my possession. Only my committee members and peer reviewer had access to my study data, which was de-identified when shared. I numerically identified transcripts to coincide with a specific participant only known to myself. No other ethical issues existed since there were no power differentials between myself and the participants. I did not conduct the study in my work environment and did not incentivize the participants.

Summary

This chapter outlined my research design with rationale, my role as the researcher, the chosen methodology, including instrumentation, recruitment strategies, and data analysis plan. I also described the processes to ensure this study's trustworthiness and all ethical considerations. Once I obtained IRB approval, I recruited participants, gained informed consent, and interviewed participants until the data indicated saturation. I then

completed coding and thematic analysis. The results are documented in the following chapter.

Chapter 4: Results

Introduction

This descriptive empirical phenomenological study aimed to explore the lived experiences of resilience among military emergency and critical care nurses who cared for traumatically injured service members at CJTH, Bagram, Afghanistan, between 2005 and 2010. This chapter provides the study setting, demographics, data collection information, data analysis, evidence of trustworthiness, and results extracted from the interviews.

Setting

I recruited participants for this phenomenological study through invitations sent from the AACN, ENA, SAFN, ANCA, and NNCA and through snowballing. No participants indicated any personal or organizational conditions that might have influenced their experience during this study that would have any influence over the interpretation of the results.

Demographics

Table 1

*Emergency and Critical Care Nurse Demographic*s

	M1	M2	M3	M4	M5
Deployed age	29	38	39	36	23
Deployed rank	Captain	Captain	Major	Major	1st Lt
Deployed marital status	Single	Married	Single	Married	Single
Branch of service	AF	AF	AF	AF	AF
Length of service	21	29	27	24	6
Service disposition	Retired	Retired	Retired	Retired	Separated

All participants were Air Force (AF) nurses who worked in the emergency room or intensive care unit (ICU) at CJTH in Bagram, Afghanistan, between 2005 and 2010. All but one participant was retired; most were a little older and of middle manager rank, and almost all had extensive service careers. A near-even split occurred between those who were single and those who were married at the time of deployment. Age and rank at the time of deployment were significant, as the literature indicated that older nurses have more experiences leading to a different resilience level (Tubbert, 2016). This significance links the paradigm that these nurses served not only until retirement, normally at the 20-year service mark, but also past such time. The youngest of the nurses at deployment indicated increased distress due to deployment, which may have been the cause for a shortened service commitment.

Data Collection

There was a total of five participants interviewed using the researcher-developed interview questions. I conducted all interviews in a secluded room in my home with a door sign indicating that an interview was in progress and that I should not be disturbed. I conducted only one interview per day on days of scheduled interviews. Interviews lasted approximately 30 – 60 minutes, with the shortest one being 29 minutes and the longest just over 52 minutes. I did not conduct any virtual or f2f interviews, nor had volunteers waiting or needing release at the data saturation point. I recorded the data using a Garmay digital voice recorder equipped with speech-activated recording and password protection. I downloaded the recorded interviews immediately to my computer and saved them on my computer and recording device. I then wrote notes in a reflexive journal, annotating

observations and feelings during the interview. Interviews were then transcribed verbatim over several days. I returned to reflexive journaling after transcribing data and listening to the interviews during transcription because they revealed so many additional tonal observations and insights. I also journaled about the feelings that the interviews stirred in me while they were taking place and during transcription. I further noted reflections after thinking about the interview data, along with possible meanings. This reflection helped me form the categories and themes from preliminary coding. There was no variation in data collection from the previously presented plan, and I encountered no unusual circumstances in data collection.

Data Analysis

Upon completing the first interview transcript, I reread the transcript for major points throughout to identify information that aligned with resilience characteristics listed in the appendix of Polk's (1997) "Toward a Middle-Range Theory of Resilience." I used the same approach with each subsequent interview while comparing the latest interview to all previously completed interviews. I readily discerned categories and themes even with small participant numbers.

I also identified many individual codes throughout each interview, which I then categorized into Level 2 codes. From the categories, I could identify themes that spanned all interviews. I identified which codes occurred the most, melded them into categories, and thus identified themes. The most prominent theme that emerged from the interviews was being unprepared for the assignment. Participants described being clinically unprepared for the patient population they encountered and being unprepared for the

horrors of the trauma they ended up seeing and experiencing. I asked all participants if they had felt prepared for their deployment given their predeployment training, and all responded with a resounding "NO." Per the interview data, there was no mention of resilience training provided as predeployment training. One participant stated they were "kind of clueless as to what I was going into" and recalled "going there thinking you're going to take care of Americans and pretty much all you see is a local national." Another participant described their experience after having been sent far forward from Bagram. The participant relayed a story about that a village got bombed, noting they received women and children at the medical facility, including a couple of women who were at or close to term pregnancies. The participant explained, "the best ultrasound was kinda like those hand-helds for fast exam. You couldn't get any fetal movement, and so they decided to do an emergency c-section and we're not equipped to handle any of that." The next nurse, who had ER experience at their home station, indicated that they "had zero trauma training" and "having not ever seen a trauma, you know, so like, yeah, I was not prepared for what I was about to see." Additionally, this nurse was placed in the ICU with no ICU experience and was left completely unprepared for the assignment. One ICU nurse discussed their first shift in the ICU upon arrival to CJTH as follows: "my very first patient … was a 5-year-old pediatric patient … that … picked up a grenade and blew off like half of her face and I had never had pediatric ICU experience before so … that was definitely crazy." In another instance, this nurse described returning to the ICU from the ER after a trauma call, stating,

> I remember like just seeing a blood trail from the ER as I was walking back to the ICU cause I wasn't needed, um, just a trail of blood from the ER all the way to the operating room suites.

The second theme derived from coding was leadership issues, specifically leaders in name and/or position only. Participants described such issues in interviews as both explicit perceptions of individual leaders and inappropriate leadership decisions at multiple levels. Participants also identified wrong decisions involving patient care/safety issues and executive leader decisional issues. Two separate participants described Chief Nurses as "horrible." One participant noted that leadership did not consider shift assignment and housing arrangements, such that a night-shift nurse was housed with others on the day shift, which caused sleep interruptions. In terms of processing deployment trauma experiences, one participant stated,

> They (leaders) really don't care. They still don't care about how medics and nurses process trauma like, the assumption is that, oh you just take it, you're a nurse, you should be able to adapt to this, you should be ok [with] seeing the massive amounts of mas cals and legs that are literally off people and burned babies, and somehow nurses should just be ok with that.

One ICU nurse stated, "Our Chief Nurse was probably one of the most worthless human beings I've ever dealt with … in that she was so traumatized by what she saw that she wouldn't even come in the ICU." Additionally, this same nurse noted that lack of leadership caring, or involvement was further exemplified this way: "We lost three children in about a week one time, and nobody cared. Not one cared; not one leadership

checked on us to see how we were doing." Another ICU nurse described leadership as "only looking good" for "high-profile people." This nurse and others described leadership as present or interested when high-ranking or high-profile individuals toured the base and hospital. One incident that this nurse relayed was that President Obama visited, and the nurses who were present for this visit had their weapons taken away. The nurse stated, "There was no way in hell I was gonna give up my weapon in a war zone, so I just didn't bother going and I didn't care." The distress I heard in this participant's voice over such poor leadership decision-making was upsetting because, as an experienced deployer, I was instructed not to go anywhere or do anything without my weapon for any reason.

The third theme derived from the individual codes was relationships. Relationships and patient care experiences bore out the essence of resilience among the study participants. All participants indicated in one or several ways that the relationships they experienced and built while deployed were what got them through and had been sustained even to the present day. One nurse discussed relationship building through teamwork. Upon initial arrival, no one on the team knew each other, but these individuals became a well-oiled team quickly. This nurse indicated that "relationships that I made with people … how close you were able to get to that group of people got me through." Another nurse pointedly stated, "it wasn't nursing leadership that made us resilient. To this day, every time I deployed and made such tight relationships, it was nurses caring for each other that got (you) through it." These relationships also helped nurses organize for the best patient care by developing standing order sets, making sense and organization out of the chaos of trauma and ICU care—in essence, engaging in teamwork. Another

noted, “You just relied on your friends, you know, like I’m still friends with people I was with during that first deployment.” One ICU nurse noted that confiding in a more experienced nurse helped them get through much of the trauma chaos, especially after a particularly horrifying patient care experience.

The fourth and last major theme stemming from the codes was safety. Subthemes of safety included patient safety (which was most prevalent), staff safety, and personal safety. Participants described the most pervasive patient safety issues: lack of supplies to take care of patients and short-staffing. The worst staffing issues occurred during the warmer months of the year when most combat operations occurred; that was when the highest numbers and highest trauma acuity occurred. One nurse described their experience: “During the summer … God awful injuries just so many patients and so short-staffed they were just completely overwhelmed.” This nurse also described the lack of supplies as “wasting of resources” when staff used critical blood supplies on enemy combatants instead of reserving them for American or Coalition forces. Staff were “using a lot of expired fluid, and there were times we would save fluids for maybe the possible American traumas we were going to get” and “literally having to call back to units (in the US) and having them send us pediatric-type supplies cause we had none and we had no money.” To make matters worse, this nurse also stated that oxygen was in short supply. “There were times they would say, of the patients you have right now, which one can be extubated? because we’re running out of oxygen,” the nurse recalled. When the nurse was caring for one pediatric patient, the patient was desaturating while ventilated during manual bag-valve-mask resuscitation. Leadership told nursing staff to turn off oxygen

when not in use. As mentioned earlier, no obstetric and gynecologic equipment and supplies were readily available to care for those types of patients that unexpectedly arrived at CJTH or forward operating bases (FOB). The most horrific patient safety issue described in an interview was that of an American military member who was shot in the head, taken to the OR and then sent to the ICU. This patient did not have a head wrapping like most head-trauma patients do. The patient's brains ended up herniating "all over his pillow," and the nurse could not stop it. I heard the horror in her voice as she relayed this story.

Staff safety was impacted the most by not having time off for physical, mental, or emotional recuperation. Nurses described working six to seven days a week, with the only time off perhaps being one day, unless they were called in for mass casualties. That one day, if allotted, consisted of doing laundry and working out. "We might have had one day off a week, but again, a lot of times during my time off, I got called in to go to the ER traumas." Another description was as follows:

> So, when I was there it was like a fight-or-flight response most of the time, so I didn't have time to process anything really. I remember being like completely horrified some of the times and then towards the middle and the end, just being like exhausted and just going full steam ahead with no time to like really process anything cause we were working our asses off.

A secondary staff safety issue occurred when leaders and planners sent personnel not appropriately matched to a position to CJTH to work in either the ICU or the ER. I have already touched on the ER nurse assigned to the ICU, but another nurse described

an incident where a more senior ranking nurse who had seemingly been out of patient care for an unknown amount of time was deployed to CJTH. During a trauma, as these nurses were transitioning (interviewed nurse redeploying home), the description of the new nurse was “not know[ing] what the hell she was doing” and told to stand aside to allow the team to work. Such situations put staff and patients in danger and illustrate poor leadership decisions concerning staffing. Such decisions are referred to as “filling positions/filling numbers.”

Personal safety was also an issue for these nurses, particularly females, during deployment. Aside from the earlier incident of poor leadership decisions where those leaders took weapons away from personnel due to high-profile individuals visiting, another nurse described feeling unsafe on base at Bagram. “Safety wise I was probably more concerned about my safety from the other active duty troops and the brown-n-root guys that were there.” This nurse further detailed that “walking down the street you would have the brown-n-root guys like making cat calls at you and stuff and whistling at you and … it felt very weird.” One nurse told a story about a female troop having been raped in one of the trailers during this nurse’s deployment; the nurse reflected that “you wouldn’t think that in a location like that that that would be happening.” Rape is one of the most unfortunate events to occur while deployed, but it aligns with Thomas et al. (2016) in their details of sexual harassment and assault of military females.

There was one participant interview that I would describe as a discrepant case due to their description of assimilation to trauma. However, it still speaks to resilience in meaningful ways from the remaining interviews. This nurse described being unfazed by

the horror of trauma or the amount of trauma witnessed because of their ER and ICU experience. However, this nurse pointedly let me know they had been raised in Chicago and were accustomed to that type of trauma. Southwick et al. (2014) exemplified the environmental and community impact on the cultivation of resilience, and they cited Kim-Cohen and Turkewitz (2012) in that “resilience may change over time as a function of development and one’s interaction with the environment” (p. 2). Dr. Yehuda in Southwick et al. (2014) noted that individuals interact with their environment, which may lead to biological changes. Polk (1997) affirmed this with the synthesis of her resilience theory in that individuals interact with the environment, and those experiences are complex and multifactorial. Although this nurse correlated environmental upbringing as a factor for the nonresponse to patient trauma, other experiences in the deployed environment led to other trauma, which led to sleep disturbances.

Reflections

I touched on a few reflexive moments during the data described above; however, journaling elicited a great deal of information about the interviews and data regarding the intrainterview period, transcription process, and data analysis and reflection process. During the interviews, the participants seemed to be at ease and conversational when answering interview questions. When necessary, probing questions were asked, and I added questions as interviews progressed in number. At the end of each interview, I perceived that the participant had no indication that I was a military member, even when using some military-specific terminology during the interviews. One explanation could be that, as a researcher on this topic, I familiarized myself with specific military

terminology. I knowingly kept such terminology at a minimum to avoid the participants guessing whether I was a military member. Although I maintained this presence throughout the data collection process, I knew one participant, so they did know I was a military member. A second participant was familiar with me through a secondary connection but not as well-known as the other participant. Although one participant was known to me, that knowledge did not seem to change how interview questions were answered. On the contrary, I felt that the participant was just as, if not more, forthcoming with detailed responses due to a shared familiarity with the military and deployed environments.

During the transcription phase, I could discern more information from the participants' voice inflections, pauses, and search for words at times. When participants were detailing horrific experiences from patient care, I could hear some anxiety in their voices and the tone got deeper, lower, and slower. Participant voices had more excitement and happiness when discussing positive information, such as teamwork and relationship stories, and their speech seemed lighter and a little quicker. On the other hand, when participants relayed stories of scarce supplies and poor leadership decision-making, I could hear the frustration and anger in participants' voices, and their speech became quicker during these stories. Pauses during responses indicated that the participant recalled as much detail as possible, or that the information was difficult to discuss.

The data analysis and reflection processes were the most revealing and surprising. As I read and reread transcripts, the descriptions allowed my mind's eye to see the

visions of trauma. I could also picture various people in the deployed environment and feel the uneasiness of being a well-outnumbered female in a sea of men; the same male counterparts one would expect to be protective of fellow female service members but were preying on them with no accountability. One participant commented that they still hear the sounds and smell the smells of the deployed environment, and I then recalled my own deployment experiences. I also remember feeling emotional exhaustion and depletion during much of the transcription process. I often had discussions with my mentor about how I felt and what I was thinking, and she provided validation that my thoughts and feelings about this subject and type of research were normal. She expressed that one would not think this would happen, but it does, and it can be very draining. The benefits of reflexive journaling during data collection were invaluable.

In addition to reflexive journaling, I had to ensure I could bracket myself from the data. Bracketing requires researchers to set aside their own knowledge or ideas of the phenomenon of study in order to analyze data in its pure form without presuppositions (Patton, 2015). I accomplished bracketing through the interview questions, asking participants to provide details of their own accounts, perceptions, and feelings allowing the true data to materialize. I ensured I did not ask questions as if to insert my thoughts or feelings into the questions. Furthermore, using participants' direct quotes to support findings and results ensured I did not put my perceptions into the data. I took great care to ensure I did not construct codes based on my deployment experiences; instead, I identified codes and themes based strictly on what the participants stated during interviews. I did not have to guess whether the participants personified resilience

characteristics; their own words told their stories of resilience, which was evident in the data.

Evidence of Trustworthiness

Credibility

I achieved credibility using member checking of participants, thick descriptions, descriptions of discrepant findings, and reflexive journaling. Once I transcribed the interviews verbatim, I conducted preliminary coding. I listed those codes as tracked comments along the edge of the document. I sent the transcript with preliminary coding asking the participant to review the transcript and preliminary codes placed in the tracked comments for accuracy. Additional instructions asked participants to provide necessary updates and agreement or disagreement with preliminary code. If participants disagreed with a code, I asked that they suggest a different coding. All participants replied to member checking that their transcripts were accurate and they agreed with all preliminary codes. I used direct quotes from participants to support the codes and themes. These quotes, and the complete transcripts, provided the rich description sought in qualitative research. One discrepant finding was noted, specifying the nurse was not affected by the patient trauma experienced while deployed to CJTH. All other participants noted significant effects from the patient trauma they experienced and described detailed accounts of those experiences, which led to the nurse's discrepant categorization. Last, reflexive journaling was accomplished throughout the data gathering process, including the transcription process and reflection, not only about what was said, but how it was said and the feelings I had during the interview, transcription, and subsequent readings.

Transferability

This phenomenological study makes general transferability impossible. However, some transferability may be applicable due to the thick rich descriptions in the interview data, codes, and identified themes. As noted in Chapter 3, other researchers cannot meet generalizability because of the precise group of military nurses at a precise point in time. Another researcher could use the same approach with the same or very similar population and achieve similar results, but populations and results may not be the same. The results could be transferable to other military nursing groups and civilian emergency and critical care nurses, as results correlate with the literature in Chapter 2.

Dependability

In Chapter 3, I stated that studies could achieve dependability when the researcher is amenable to adding interview questions or reconfiguring questions based on previously collected data. The need for additional questions occurred as interviews progressed. I added a few new interview questions based on data collected from the first two interviews. Additionally, I allowed reordering of the interview questions based on the participants' recollections and descriptions of events during their deployment. When a participant was providing data, though that data may have been pertinent to another question, I did not interrupt them. The noninterruption allowed the participant to provide thick, rich descriptions of their experiences without adhering to a strict ordering of interview questions. Throughout this process, participants continued to address all interview questions. The study design and research questions aligned, enhancing dependability. The alignment of theoretical frameworks and constructs, as detailed in

Chapter 5, further demonstrates dependability. Furthermore, the documented evolution of the study and data findings further promotes dependability. The previous chapters detailed the methods and procedures of this study; data collection followed through with the planned approach. The absence of deviation from the study's plan also promotes dependability. Last, peer reviewing of data completed the last facet of dependability. Peer reviewing was achieved through the reading of transcripts by my mentor. My mentor not only confirmed data saturation with five interview transcripts but agreed with all preliminary coding. We discussed my thematic development, and she verbally confirmed my thought processes for identifying themes were accurate.

Confirmability

Researchers achieved confirmability when someone other than the researcher, confirms another conducted data analysis appropriately and when findings and interpretations link to the data, assuring alignment of all study aspects. The use of member checking, an audit trail, and reflexivity also support confirmability. The description of my mentor's assistance in confirming data saturation, coding, and thematic analysis, and agreement that findings and interpretations link to the data ensured alignment of this study, which promotes confirmability. Confirmability was attained in this study using member checking, an audit trail that detailed study procedures, and reflexivity to confirm thematic outcomes.

Results

The research question was: What are the lived experiences of resilience in military emergency and critical care nurses who cared for traumatically injured service

members in Afghanistan between 2005 and 2010? I sought specific resilience characteristics of the situational and philosophical patterns of resilience, as Polk (1997) outlined. From the data, I identified the following situational pattern characteristics: active problem-oriented coping, ability to gauge their capacity to respond to situations and to follow through as required, realistic assessment of one's capacity to act, realistic appraisal of situations, determination, problem solvers, perseverance, persistence, sense of being in control, and adaptability. Philosophical characteristics included: reflection about oneself and events, valuation of one's contributions, and reflective of changes over time. Although these two patterns were the concentration of this study, I identified a few characteristics in the dispositional and relational patterns. These characteristics include personal competence, a sense of mastery, the importance of relationships, turning to another to have sense made of an experience, and job competence, respectively.

The four themes – unprepared for the assignment, leadership in name/position only, relationships, and safety – all comprise multiple resilience characteristics. When discussing categories of unpreparedness, participants described how they overcame preparedness challenges through active problem-solving, their capacity to gauge a response to situations and follow through, realistically appraise situations, persevere, have determination, persist, gain and maintain a control of situations, and adapt. The following quotes from participants illustrate these characteristics:

> I needed to stay in this to take care of the person …, became robotic of just doing … the nursing process, the trauma process, let's get everything done and then think about what you did later.

Some reason I was able to kinda get through it cause I focused on exactly what ATCN (Advanced Trauma Care for Nurses) and other things kinda make you do, is you run the system, you're getting people trauma naked, you're isolating those injuries, and trying to plug holes; all those things you would do in trauma stuff, so that really the injuries didn't seem to bother me that much.

If I got wrapped up in it, then in that very moment of things then I felt like I became ineffective and unable to do my job.

We kinda created our own how we cared for patients … we came up with a strategy, we developed and came up with a strategy with standing orders … Then we created on how we were going to land patients out of the OR.

You just do it, you know … you don't have time to think about it because you're just so busy. I remember one time, I don't know if I'd eaten something bad or whatever, but I literally rolled around taking care of two patients, two critical patients in a chair with an IV going cause they couldn't afford to let me go back to my room.

I'm typically not the type of nurse that gets emotional or let's that (trauma) get into my head and I don't know if I compartmentalize it or what but I'm able to separate the emotions and with the patient and realize that you know this is, I treat the patient more as this is a body versus, you know this is my best friend.

So … I changed a lot in those six and a half months I was deployed, uh, from being like, kind of nervous and not knowing what the hell I was doing to being, like,

> supremely confident in whatever that walked through the door I could manage that was, like, cause we were inundated with trauma all day every day.

Overcoming leadership issues demonstrated characteristics of the situational pattern of resilience. Participant data presented earlier contends that participants overcame poor leadership decisions through various means: First, not attending very important person (VIP) visits due to safety concerns, reaching back to stateside units for needed supplies, and respectfully requesting individuals not to interfere during a mas cal when they had been out of patient care for an extensive period. Another example of overcoming poor leadership decisions stemmed from nurses covering for each other. Two participants noted that staff helped each other by allowing additional time away from the unit to get extra rest when patient flow and numbers were low. One nurse covered more time in the unit for others to get extra rest, and "little things" like making treats for staff to boost morale helped overcome poor leadership decision-making.

Relationships were significant for resilience, as discussed throughout the interview data. Participants said that relationships were formed and solidified during deployments, to the extent that those relationships continue to the present day. These nurses looked out for each other and were reciprocally cared for by teammates. As one nurse stated, "uh, you just relied on your friends, you know, like I'm still friends with the people I was with during that first deployment." This nurse also stated that she felt lucky to have worked with an ICU Clinical Nurse Specialist (CNS) because this nurse did not have ICU experience before that assignment, and they remain friends to this day. In response to my question: Thinking about the whole deployment experience, if there was

one thing that you could say was the lynchpin that got you through, what do you think that would be for you? The participant responded, "relationships that I made with people … how close you were able to get to that group of people got me through." Another nurse noted, "without them I just wouldn't have gotten through it; I just wouldn't have."

Concerning safety issues, nurses galvanized resilience by acquiring needed supplies through whatever means necessary. Further, nurses safeguarded patient safety by placing the right people with the right skills in the right place. However, much new skill-building was achieved among these nurses on their CJTH deployment, as two participants stated they were "thrown to the wolves."

Philosophical resilience characteristics of reflection about oneself and events, valuation of one's contributions, and reflective of changes over time were manifested in all interview data as follows:

> I think the world is always just a little bit different after seeing that. I didn't admit to myself I was different, and so, towards the end of my career, which was about a year ago, I actually went and talked to mental health about some of the things I, you know, I think I compartmentalized a lot of things.
>
> When you go out there and say I'm, they're expecting me to be on my best, do my best, do what I can do to save lives and when those lives are lost, you know, it's hard not to walk away reviewing what you could have done better or next time around, this and that, or feel bad that you just couldn't save them, even knowing, you know, we're realistic, I'm realistic that they came in with the odds against

them in regards to their injuries but it still doesn't take away the fact that, you know, you feel like you could have done better.

I think being older helped, um, I think being single helped because I don't know what those people went through having to leave kids behind and, you know, I didn't have that stressor on me and so, it's kind of like I tried to be the stronger one because I was older and because I didn't have the stressors that they did, um, I tried to, you know, tried to do fun things for them like we would make up dances (laugh) and, and, uh, perform dances for the doctors that morning when they round and, you know, just to do some fun stuff to try to keep the kids, you know, you know, pre-occupied with something else other than what was going on.

The hardest thing about reintegrating is that you get back to the States and everybody is so focused on stupid stuff at work and you're like thinking, are you kidding me? You know, that, at least you have all your supplies, or, you know, at least you're not dealing with a kid that just got blown up and so that was really hard at first is you end up not caring about the small stuff but other people don't understand that and so they're caring about the small stuff, you know, so it was really hard to finally let that go and to, and to find a purpose to be back and even if it's the small stuff, you know, just trying to find a way to feel like you're making a difference so that was probably the hardest thing, is finding a way to feel like you're making a difference from what you did in Afghanistan cause over there, even though it was ugh, you felt like you were doing something good.

Interview question: So, outside of that (sleeping), no identification of any other issues from deployment, correct? Answer:

> You know, I was thinking about that prior to this interview, and I was like I, I didn't have issues with, um, any of the other parts other than sleep, which, like I said, here I am how many years later, so still dealing with it.

The last point about philosophical resilience pattern characteristics struck me as very insightful. The participant described experiencing significant trauma while deployed and did not seek mental healthcare after returning to the US. However, all participants stated they did not seek, nor have available to them, mental healthcare. However, this nurse's remaining career had a shielding effect when working with the military in a contract position. Upon removal from that environment, the nurse expressed abrupt and significant PTSD manifestation, which affected the nurse's civilian employment. This nurse was referred to a facility specializing in eye movement desensitization and reprocessing (EMDR) and placed on high-dose medication. The intensive therapy allowed the nurse to recover to a functional state. The nurse noted, "I didn't think I would be smacked as hard as I was …" but also stated, "with therapy and medication; however, I'm still in the thick of like trauma stuff dealing with that, but nothing will be as bad as what I saw overseas so I guess that's good." First, this is significant because Hernandez et al.'s (2016) study surveyed military nurses and technicians who had deployed since September 2011. Those results exposed barriers to care and stigma toward mental healthcare. The timeframe of that study's surveyed population immediately proceeded the timeframe participants in this study served their deployments, who pointedly indicated

there was stigma toward and a lack mental healthcare. Secondly, it is also important to note that this nurse was the youngest of deployers, separated due to the deployed trauma experience, and expressed through the description of having had the most extreme reactions to those experiences. The importance correlates with the literature indicating that older nurses, who have more experience, had increased resilience (Manomenidis et al., 2019; Öksüz et al., 2019), and Pyne et al.'s (2019) study of military service members revealed that older participants, regardless of combat exposure, had lower PTSD. I viewed this nurse's resilience growth as significant.

Summary

The results from the data analysis demonstrated that deployed emergency and ICU nurses at CJTH between 2005 and 2010 faced significant challenges yet rose above them. Direct quotes from interview data supported the identified themes of nurses being unprepared for assignments, experienced leadership in name/position only issues, built relationships, and overcame safety issues. Moreover, the situational and philosophical resilience pattern characteristics I sought emerged from the data. Several resilience characteristics emerged from the dispositional and relational patterns as well. Although these two patterns were not the foci of this study, I assert that those characteristics add supporting evidence that these nurses were and are resilient. In the final chapter, I will discuss interpretations of the findings, limitations of this study, recommendations for practice, and methodological, theoretical, and/or empirical implications. I will also discuss the implications of positive social change. A final conclusion will round out this descriptive empirical phenomenological qualitative study.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

This descriptive phenomenological study aimed to explore the lived experiences of resilience among military emergency and critical care nurses who cared for traumatically injured service members at CJTH, Bagram, Afghanistan, between 2005 and 2010. Through this study, I sought to find the essence of lived experiences through rich descriptions that participants provided through interview questions. Those lived experiences shed light on many other resilience characteristics other than spirituality.

Interpretations of Findings

Confirm, Disconfirm, or Extend Knowledge

Several findings found in the data confirm what is in the peer-reviewed literature. The first finding focused on relationships. The literature clearly articulated how important relationships are to military medical personnel during deployments (Abraham et al., 2018; Angel, 2016; Gibbons et al., 2014; Ma et al., 2021). Participants in this study forged relationships during their deployment to CJTH and subsequent deployments that they mentioned during interviews. Participants described these relationships as important for getting through the horrors of the trauma that they experienced from war injuries and the physical, mental, emotional, and psychological tolls suffered during the deployments. The tolls from deployment resulted from the lack of time off for recuperation, poor leadership issues causing additional problems, and working together to ensure that supplies were obtained and used appropriately.

The second finding of returning from deployment as a different person, struggling with the experiences, and lacking mental healthcare out of fear of career repercussions are also findings supported in the literature (Doherty et al., 2020; Hernandez et al., 2016; Ma et al., 2021; Rivers & Gordon, 2017). The timing of studies highlighting the lack of available mental healthcare for returning deployers correlates with the time that the participants were active military nurses. Paraphrasing participants, they not only lacked mental healthcare; but they could not seek it due to discrimination that they would have endured in the form of removal from leadership positions, removal from future deployment status, potential medical evaluation boards (MEB), and being held back from promotions. Participants noted that they either sought mental healthcare outside of military treatment facilities for masking purposes or did not get treatment until after they were retired. Although findings showed that each participant was different upon reintegration from redeployment, they forged lifelong relationships. They each sought, found, or received orders to obtain needed help; they continue to flourish today, as evidenced by Southwick et al. (2014), who noted that one could have PTSD yet still be resilient.

A third confirmed finding evident in the literature is that of personal safety. One female participant was explicit in their description of being very outnumbered by men while deployed, being cat-called and whistled at, and being aware of the rape of another female on her deployment. Ganzer (2016) reported that Veterans Health Administration (VHA) screening data showed that 22% of women veterans “reported experiencing military sexual trauma” (p. 35). Additionally, another author she cited noted that 15% of

125,000 “OIF and OEF veterans who had received VHA health care” services reported experiences of military sexual trauma (Ganzer, 2016, p. 35). Ganzer further noted that females who experienced military sexual trauma had substantial “PTSD, anxiety, and depression” (p. 35). The participant experiencing personal safety issues noted that dorms were not locked, stating,

> We never kept our door locked, and when you think about it, and you look at it, people used to come in and out of the dorms all the time. They weren’t really locked even though they said the doors locked, you know anybody could come in, um, and the doors to the room, you know, we never really kept locked either.

One could argue that dorms were not locked due to the readiness requirement of evacuation if a bombing occurred, but this was not a good argument when main dorm doors lock from the inside.

One finding that disconfirms what is written in the literature is that of supply chains and stabilized MTFs. Almost every participant discussed the lack of supplies in-depth, including calling back to the home station units for needed supplies. This lack of supplies contradicts what Rivers and Gordon (2017) wrote when studying military nurse deployments, stating that there was more certainty with stabilized MTFs and supply chains. Another point that Rivers and Gordon made is a second disconfirmed finding that military nurses train to be ready for all types of deployments. Yet, almost all participants emphatically stated “no” to the question of feeling prepared for their deployment. Recall that Simmons et al. (2018) noted that nurses described being unprepared mentally and

spiritually for the deployment trauma that they experienced, which correlates with my findings.

The data shed light on some new knowledge. Nurses who deploy to countries whose cultures differ significantly from America must be trained and prepared for those cultural differences related to patient care. Examples from the data include the participant who was involved in the emergency c-sections of two local nationals, as described in the results. In America, mothers can hold and spend time with a child that died in childbirth if they choose, regardless of the reason. This nurse used that thought process when caring for these local national women but received a reprimand because of sending human remains forward. In the war zone, those nursing considerations vary considerably. This example contradicts nurses' caring for and allowing for a dignified death. A second example from the data concerns local national children brought to CJTH for care. Many children suffered trauma from abuse, with one participant describing what would be considered dipping, where a child is dipped into scalding water and suffers burns. Child abuse is a reportable offense in America, and nurses are mandatory reporters. However, in the warzone, no such reporting occurs. The children received treatment and, when they recovered, returned to their parents. Predeployment training must address these cultural differences related to nursing care.

Another new insight stems from a lack of predeployment preparation where severely injured service members would be maintained on life support from the Afghan theater to Germany so that families could meet them to say goodbye before they are taken off life support. While this is considered humane and common practice, there was a lack

of consideration for the psychological trauma it caused to the medical teams caring for those patients. As described by several participants, nursing teams from CJTH and the Critical Care Air Transport Teams (CCATT) experienced emotional trauma from providing such care without acknowledgement, No one asked the nurses who experienced this emotional trauma how they were doing when fulfilling that part of the mission yet expressed difficulty in dealing with it.

Participants were also unprepared for nursing care's impact on military operations. The example extracted from the data was that local national casualties were kept alive so that intelligence could be gathered from family members and used as leverage for intelligence purposes. Those responsible for deployment taskings should inform military nurses and other medical personnel of this part of military operations due to how it affects their psyche and consciousness.

Findings in the Context of Theoretical Framework

This study was framed by Polk's (1997) "Toward a Middle-Range Theory of Resilience" while being more narrowly situated in the situational and philosophical patterns. Resilience is multifactorial as the person interacts with the environment, family, colleagues, cultures, and other contextual factors. Resilience is generally defined as bouncing back and overcoming traumatic experiences (Chen et al., 2018; Vyas et al., 2016). Findings from the data indicated that all the participants demonstrated resilience through rich descriptions of their lived experiences. The specific characteristics from the situational and philosophical patterns (realistic appraisal of situations, determination, perseverance, persistence, control over environment, reflection about oneself and events,

realization life has purpose, belief in finding positive meanings in experiences, reflexive changes over time) are evident in the findings through participant accounts: "When you're putting people in an expectant category and you've got some of their friends there, and you're pretty much essentially saying, you know, they're not gonna make it and you're doing comfort care"; "you just, you just do it, you know, you don't, you don't, you don't have time to think about it because you're just so busy"; "the one night off, we might go to country night or, you know, I mean, just, you just had to find things to help you get through it"; "finding a way to feel like you're making a difference from what you did in Afghanistan cause over there, even though it was ugh, you felt like you were doing something good"; "I changed a lot in those six and a half months I was deployed uh from being like kind of nervous and not knowing what the hell I was doing to being like supremely confident in whatever that walked through the door"; and "the first time I noticed there was, you know, just some different things about me that was right around the 4th of July, I think we got back in the middle of June, but 4th of July was right after. I remember going out to a burn pit for the 4th of July, which is normally a you know, joyful experience, and realized how much I dislike fireworks at that point."

Further evidence of the resilience of nurses was found in accounts of patient care, whether it was the procurement and/or conservation of supplies or provisions of care being devised by the nurses as a team, demonstrating determination and control over the environment. The data also demonstrate that these nurses found ways to move forward and continue those healing processes today, validating Southwick et al.'s (2014) assessment that individuals change over time and in the context of a situation or

environment and that resilience simultaneously occurs with PTSD. Ramalisa et al. (2018), among others, described resilience as an outcome based on acquired skills, experience, and mental health treatment, but outcomes indicate a finite point of reaching resilience. The data in this study show that there is no finite outcome of resilience among the nurses interviewed; resilience continues to evolve. The participants personify resilience through the identified characteristics in the situational and philosophical patterns.

Limitations of the Study

In Chapter 1, I identified several limitations to this study. First, another researcher cannot fully replicate this study due to the participant population and the qualitative methods. The population was specific to emergency and critical care nurses who experienced their first CJTH deployment between 2005 and 2010 and focused on those specific experiences. A first-time experience differs from subsequent experiences even when the location is the same, so the findings will differ. I journaled and tracked all methods, providing a complete audit trail; however, that did not ensure that this study could be replicated entirely and get the same results. Due to the specific population, findings cannot be generalized to a wider population. Findings could be characteristic of other military critical care and emergency nurses but may not be exactly the same. Some reasons for differing findings in another study are that the participants may have different exposures affecting recall, reactionary differences in experiences, and other exposures within their work, family, and community environments that already affected their resilience levels.

Other military nurses, healthcare providers, and service members who cultivated resilience from deployments may produce similar findings when interviewed under similar study parameters. Still, there is no guarantee that this will occur, thus, decreasing generalizability. Furthermore, the semistructured interview questions were specific to military nurses deployed to Afghanistan and may not apply to nurses who deployed to other areas.

Lastly, recall of information and truthfulness of experiences limit this study. There was evidence in interview data that one or more participants could not recall specific information, which may or may not have led to significant findings. Still, there was no way to make such a determination. The only factual piece of information was that the participants themselves stated that they could not recall a piece of information. Lastly, I relied on the participants being truthful in all responses to interview questions. None of the participants gave me a reason to think that they were not completely truthful. On the contrary, participants said they were completely honest and forthcoming with information. Although the data indicate truthfulness, there is no way to be completely sure.

Another limitation was the small sample size. While qualitative research does not specify sample sizes as quantitative research methods do, the way to identify when a researcher has enough participants is through data saturation. Although there was a population size of five, it was easy to identify saturation even with fewer than five participants. Furthermore, all nurses were critical care and emergency nurses, which limits findings to only these groups of nurses.

The final limitation centers around bias, which I had to work diligently to keep at bay. It would have been easy for bias to infiltrate this study because I am a military critical care nurse who deployed to Afghanistan during my career and was intimately familiar with the environment. While I could significantly reduce bias, this is still a limitation because I could not guarantee bias elimination. I did use bracketing to overcome bias, which I discussed in the results, but the limitation remains that there is no guarantee that bias was eliminated entirely.

Recommendations

I formulated several recommendations from this study. The first recommendation is to thoroughly prepare emergency and critical care nurses for the patient care experiences that they will encounter in their profession. While it may not be possible for every type of experience to be covered, instructors should educate nurses new to emergency and critical care to develop mental, emotional, and psychological preparedness in orientation. Preparedness was a key finding in this study. Regardless of the clinical training that the participants received, they were unprepared for the number of patients at one time nor the horrific injuries they faced and treated. Furthermore, participants noted that they were unprepared for local national patients, including patient populations of women and children. The literature highlighted education through orientation and continual job learning (Cusack et al., 2016; Henshall et al., 2020; Park, 2017; Ramalisa et al., 2018; Schmidt & Haglund, 2017; Tubbert, 2016). But to take this topic further, military nurses must be prepared similarly during predeployment preparation so that they have realistic expectations that bolster resilience.

The second recommendation is to restructure reintegration briefings that include the deployed member's family. Married participants noted that returning from their deployment was difficult after their experiences in Afghanistan. One participant stated,

> I think that my wife was, she would say that I became isolated, I was mean, I was distant, I had a short fuse. I was very short, and I had two very small boys at that time, so just really not who I am or not a very good person, um, I don't know, yeah, I was just a horrible person coming home.

Another participant had a much different reaction:

> I do remember that, um, my husband, talking about resiliency, I felt bad for him cause I mean, that was a tough deployment for him. I got home, I saw my husband, and I mean no joke, I saw my husband we drove home one of the other people that I was deployed with um within probably 5 hours of me returning my husband like, like, I gotta get out of here. [He] Dropped the kids with me, and he went and checked in at billeting on base for a couple days.

It did not appear that there was consideration for the family members who were left behind to take care of the family while the military member was away. The impact increases when that military member arrives home their horrendous exposures. They are expected to be thrown into the family unit as if they never left, with no time to decompress. The family members did not get support or briefings to alert them of the military member's changes incurred while deployed. Having experienced these reintegration briefings, I can attest that the briefings do little, if anything, to provide any reconnection expectations for the military member or family members. To this point,

reintegration briefings should be a much higher caliber, occur more often, and include all family members to manage expectations properly.

A third recommendation is to provide more turnover time between newly arrived deployers and departing redeployers. Many participants expressed concern and frustration over having very little turnover time, from a few hours to one or two days. The lack of turnover time did not allow unit acclimation, assignment, or supply location. First-hand accounts provide evidence: “not knowing where things were” and “my first patient came out of the OR, and anesthesia is asking for a non-rebreather, and I didn’t even know where they were.” The recommendation is to standardize turnover time to a minimum of three days to provide acclimation and orientation to the shift assignment, unit, supply location, and processes. While it is understandable that those at the end of their tour are ready to leave, there must be a concern for safe patient care, especially given the trauma and types of patients encountered.

The fourth recommendation is to put the right people in assignments. Participants identified the issue that deployed nursing leadership (Chief Nurses) were more of a hinderance and, at times, an obstruction to patient care and the deployed mission. The mantra was to put names to positions without consideration of whether it was the right person for the position based on the nurse’s career and clinical experience. Participants also expressed this lack of concern with statements indicating that it was not the leadership that got them through; it was each other. Furthermore, this recommendation goes for nurses who are assigned deployment taskings. One participant noted they were an ER nurse yet were assigned as an ICU nurse with no ICU experience. While the nurse

ultimately excelled during that deployment, it could have been disastrous for someone else in the same position. Another participant stated that a nurse who was seemingly out of patient care for some time was sent to be an ER nurse and did not know how to care for the trauma patients that arrived in the ER.

A fifth recommendation is to move away from the paradigm that the American military can fight a two-front confrontation simultaneously without issues or interruptions. This recommendation stems from the participants' descriptions of the lack of supplies and the right equipment, rationing of supplies, and no money. One participant explicitly stated:

> I remember feeling a lot of anger for, you all want us to take care of these patients, but you're not giving us what we need. We were literally having to call back to our units and having them send us pediatric-type supplies cause we had none, uh, we had no money. All the money was still going to Balad, so that, that stuck out in my mind is trying to take care of patients without even enough supplies to take care of them, um, as well as having an oxygen shortage. I went to leadership multiple times to no avail.

This participant's account was in-depth compared to others, though almost all participants noted the lack of supplies and equipment to care for patients properly. Leaders acknowledge that there was a higher priority of one operational front over another, indicating that a two-front confrontation is impossible and the military should abandoned paradigm.

The last recommendation is to remove resilience training from the Air Force (AF) training repertoire. In Chapter 1, I discussed identifying resilience characteristics that could restructure resilience training; however, this position has changed because of the data findings. The AF predicates the use of resilience training on a medical model of care with an expectation that resilience will be the outcome of training. As I indicated earlier, AF resilience training has become severely diluted over the years.

The AF does not conduct it as predeployment training, nor does it conduct it as postdeployment training as intended. When I asked participants about predeployment and postdeployment training, they never mentioned resilience training. However, participants recalled other training and briefings. Based on the findings, I recommend that cognitive behavioral therapy (CBT) and/or exposure therapy replace Master Resilience Training (MRT) to bolster the resilience of military emergency and critical care nurses.

Implications

Positive Social Change

I previously identified in Chapter 1 that positive social change would come from findings that supported a need for more widespread and improved resilience training for military emergency and critical care nurses. With the recommendation to eliminate resilience training, more focused positive social change entails ensuring that leaders fully prepare military emergency and critical care nurses for deployment, both clinically and psychologically. Findings support a need for clinical preparedness and expectation management. Clinical preparedness and expectation management are needed across all military healthcare professions, which could also apply to civilian healthcare

professionals. Managing expectations helps to promote resilience. I also stated in Chapter 1 that achieving positive social change entails understanding the importance of resilience development in military nurses caring for traumatically injured patients. The findings fully support this idea. The AF should incorporate expectation management into predeployment training and provide readily available mental healthcare to bolster postdeployment resilience. Participants in this study stated that they did not have mental healthcare available or offered to them, which was also frowned upon. Participants did not seek or obtain mental healthcare until after retirement or upon referral many years later. Early and open access to mental healthcare after deployments, as these participants experienced, will promote significant positive social change. By having the care that military nurses need, they will become productive members of their units, families, and society. Although PTSD may still be present, these nurses can flourish with the proper mental healthcare.

Methodological, Theoretical, and Empirical Implications

Qualitative research methods can enhance or produce new knowledge within the study phenomena, particularly resilience. This study demonstrated that descriptive empirical phenomenological research adds supportive evidence to published quantitative research. The literature review contained several quantitative studies of varying foci, but only a few studies utilized qualitative methods, and those only focused on the spiritual characteristic of resilience. This study shows that qualitative methods can elicit many more resilience characteristics while also spotlighting the context of those characteristics.

This study supports Polk's (1997) middle-range theory of resilience, considering all contexts (person, family dynamics, community, and other environmental factors) when discussing resilience. The individual interacts with their environment and everything in it. Furthermore, the person decides what they do with the information gained from experience; for example, the individual decides to get help because of a traumatic experience or decides not to seek help. Outside factors affect how and when someone receives the mental healthcare needed, such as when the individual encounters difficulty in locating services versus being directed to services. Moreover, Polk's manuscript lists many resilience characteristics attributable to an individual. Some of those characteristics may result from how one was raised, as in a religious household, where spiritual resilience is more abundant. Participants in this study provided stories describing instances when perseverance and determination resilience characteristics were most prevalent. Polk's theory is a middle-range theory, which means there is room to develop resilience theory into a grand theory. I had many analytical thoughts about developing a grand theory of resilience and discussed those thoughts with my mentor, which prompted further thought and analysis. This study provided the groundwork to shape theory development.

I elicited resilience characteristics from the data just as I proposed in the first few chapters of this study. Researchers should conduct more qualitative studies such as this one to add empirical evidence to the current body of literature. One option is to conduct a secondary analysis of my data. Through discussions with my mentor, we discovered that the qualitative themes produced from this data were the same or very similar to those

themes produced in her qualitative resilience studies, which focused on a different military population. Combining and analyzing both studies can generate additional empirical evidence, increasing the body of empirical evidence.

Conclusion

This study's focus was the lived experience of resilience of emergency and critical care nurses who deployed to CJTH in Bagram, Afghanistan, between 2005-2010. The findings provided evidence that the nurses who deployed to CJTH during those war years developed resilience in several ways, most prominently through relationships, as evidenced by interview data. Moreover, this study demonstrated that the complex, intermingling energy flows between the individual, the environment, and the resilience patterns cannot be explained in simple terms nor be treated as an outcome through a medical model of care. Individuals cultivate resilience differently due to a myriad of factors, none of which are the same for any two individuals. A great deal of learning remains about resilience. This study was a good start, but more qualitative studies are needed to better understand all aspects of resilience.

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Appendix: Interview Questions

Research question: What is the lived experience of emergency and critical care nurses who cared for traumatically injured service personnel during Operation Enduring Freedom between 2005-2010?

Demographics:

1. How old are you?
2. What branch of service were you in?
3. How long did you serve? Did you retire or separate?
4. At what rank did you deploy to Craig Joint Theater Hospital (CJTH)?
5. Were you married or single at the time of deployment?
6. How old were you at the time of your deployment to CJTH?

Research questions:

7. What pre-deployment training did you receive prior to going on deployment? Please be as specific as you remember.
8. Explain your perception of deployment preparedness. Did you feel prepared to do the job you were going to?
9. What was your experience like when you first arrived at your deployed location?
10. Tell me about a typical work day.
11. Tell me about your first major trauma call or mass casualty. (This can be experiences related to flying AE/CCATT as well).
12. How did you feel in the midst of this experience?
13. How did you feel after it was over?
14. If you experienced any emotional or psychological stress, how did you deal with it or manage it?
15. How did you manage subsequent mass casualties?
16. Tell me about any support systems you had or used during this time. What got you through your deployment?
17. Tell me about your experience returning from deployment. What was your re-integration period like?
18. Tell me about any reintegration training you received during that period.
19. Final question: What was life like in the months and first few years after that deployment?
20. Is there anything else you would like to add from your deployment experience?