





# The Lived Experience of Military Women With Chronic Pain: A Phenomenological Study

CDR Sandra W. Peppard, PhD, RN, NC, USN (Ret.) \*;  
CDR Joseph Burkard, DNSc, CRNA, RN, NC, USN (Ret.) \*; Jane Georges, PhD, RN \*;  
CAPT Judy Dye, PhD, APRN, ANP-BC, NC, USN †

---

## ABSTRACT

### Introduction:

Chronic pain, a persistent or recurrent pain lasting more than 3 months, is a widespread problem among military women due to combat-related injuries and post-deployment stressors. Risk factors associated with chronic pain include gender, mental health, post-traumatic stress disorder, and prior physical or military sexual trauma. The most common prevalence of chronic pain is musculoskeletal (e.g., low back and neck), migraine, osteoarthritis, and fibromyalgia. Following deployment, 25% of military women are at risk for chronic pain. Military women are prescribed opioids for pain at a higher rate than men and are at risk for prescription opioid addiction. The unique medical needs of military women, including chronic pain, are poorly understood by health care providers and need to be addressed to achieve full integration into the military. The purpose of this study was to explore a typical day for military women living with chronic pain by examining the participants' daily life experiences.

### Material and Methods:

Using van Manen's approach, 13 active duty, retired, and veteran women were interviewed to explore these lived experiences. The study was approved by the Institutional Review Board at the University of San Diego.

### Results:

Eight themes emerged from an analysis of the participants' experiences: (1) chronic pain is a frustrating, persistent, daily, and an hourly struggle; (2) resilience in living with chronic pain is the new normal; (3) mission first and the impact of invisible pain; (4) self-care management and internal locus of control with nonpharmacological therapies; (5) pain accepted and managed to improve quality of life; (6) coronavirus disease 2019 (COVID-19) diminished social interactions; (7) pain of sexual trauma is not reported; and (8) disparities in health care due to self-perception of provider bias as pain is not understood.

### Conclusions:

The study generated new knowledge in Force Health Protection, ensuring (1) a fit and operational readiness force; (2) pre- to post-deployment care for women warriors; and (3) access to health care. The study findings supported previous research and could help direct future research into nursing, medicine, and allied health treatments for military and veterans' gender-specific health care, education, and training. Furthermore, the military women in this study provided insight into the need for future research to explore unconscious gender bias, health disparities, and a raised awareness of military women living with chronic pain. Findings from this study merit further exploration using other qualitative research methodologies including mixed methods.

---

## INTRODUCTION

Chronic pain is defined as a persistent or recurrent pain lasting more than 3 months.<sup>1,2</sup> It affects 1.5 billion people worldwide. In the USA, the estimated cost of chronic pain is between \$560 billion and \$630 billion per year.<sup>1</sup> Chronic pain is a significant problem affecting one out of every five persons

and is a widespread problem among military service members and veterans.<sup>1,2</sup> Chronic neck and low back pain, headache, knee and hip osteoarthritis, and fibromyalgia are the most common causes of chronic musculoskeletal pain in military service members.<sup>3</sup> Additionally, with post-deployment stressors and combat-related injuries, military populations are at risk for prescription opioid addiction.<sup>4-6</sup>

When returning from deployment, 44% of military personnel reported chronic pain and 15% used opioids. In comparison, 26% of the general population experienced chronic pain and 4% used opioids.<sup>4</sup> Military women experience a higher prevalence and are prescribed opioids for pain at a higher rate than their male counterparts, placing them at a higher risk for prescription opioid addiction.<sup>4-6</sup> Military women have risk factors associated with chronic pain including gender, lower levels of education, mental health disorders, post-traumatic stress disorder (PTSD), traumatic brain

---

\*Hahn School of Nursing and Health Science, University of San Diego, San Diego, CA 92110-2492, USA

†School of Nursing, San Diego State University, San Diego, CA 92182-4158, USA

The views expressed are solely those of the authors and do not reflect the official policy or position of the U.S. Army, U.S. Navy, U.S. Air Force, the Department of Defense, or the U.S. Government.

doi:<https://doi.org/10.1093/milmed/usac134>

© The Association of Military Surgeons of the United States 2022. All rights reserved. For permissions, please e-mail: [journals.permissions@oup.com](mailto:journals.permissions@oup.com).

injury (TBI), and prior physical or military sexual trauma (MST).<sup>7-9</sup>

Military women comprise approximately 17.2% of the active duty force and 21.1% of the Selected Reserve force; therefore, women are a minority population within the military service.<sup>10</sup> Over 300,000 military women were deployed to Iraq and Afghanistan supporting Operation Enduring Freedom, Operation Iraqi Freedom, and Operation New Dawn.<sup>11</sup> Following deployment, military women were at risk for chronic pain, substance abuse, MST, and/or mental health disorders.<sup>11,12</sup> In one study, 77.8% of women reported chronic pain conditions that contributed to poor health.<sup>12</sup> Another study revealed that women reported a higher prevalence of chronic pain when compared to men in the first year after deployment.<sup>13</sup>

Furthermore, military women suffered substantially more mental health problems than their male counterparts.<sup>14</sup> Military women who experienced MST developed PTSD nine times more often than those without MST; 32% of military women reported experiencing MST during their career service.<sup>15</sup> A recent study linked PTSD with chronic pain as well as higher rates of psychiatric and substance use disorders.<sup>16</sup> Additionally, women who were active duty and National Guard reported being hurt, injured, wounded, and/or assaulted while serving in Afghanistan and Iraq.<sup>17</sup> Witnessing tragic events in combat and other stressors had profound, long-term consequences on women's mental health.<sup>17,18</sup>

To address the increased incidence of chronic pain and opioid use in the general military population, the Department of Defense and the Veterans Health Administration (VA) established a comprehensive and standardized approach to optimize the treatment of acute and chronic pain as well as to address the opiate crisis.<sup>19</sup> Currently, complementary and integrative health approaches can be found in 83% of military treatment facilities and over 90% of VA facilities to decrease chronic pain and opioid abuse, enhance patient outcomes, and reduce health care costs.<sup>20</sup> Traditionally, chronic pain and other military-related disorders have been treated utilizing traditional Western medicine and psychotherapy. Recently, complementary and alternative therapies (e.g., acupuncture, acupressure, auricular acupuncture, massage, Tai Chi, yoga, and mindfulness-based stress reduction) have been added as treatment modalities.<sup>21</sup> Outcomes in the use of nonpharmacological strategies for chronic pain among active duty military women and veterans have been published with promising results.<sup>22</sup>

Although the Department of Defense and VA have implemented programing for chronic pain and opioid use in the general military population, the majority of the studies focused on the male population. The purpose of this qualitative study was to describe the lived experience of military women with chronic pain. This study (1) explored a typical day with chronic pain and (2) examined meanings through the life experiences of each military women diagnosed with chronic pain. Understanding the medical needs of military women

is vital for full integration into the military. While these predisposing risk factors to chronic pain have been well documented, there is a paucity of research on the daily lived experiences of military women.

## **THEORETICAL MODEL**

The theoretical model underpinning this study is the biopsychosocial model. This holistic framework integrates the whole person with a mind and body perspective.<sup>23-25</sup>

## **METHODS**

### **Study Design**

A qualitative design was used for this study utilizing van Manen's approach to investigate the stories of military women with chronic pain. This study was accomplished through focused, open-ended questions about chronic pain and asking, "What is it like to live with pain?" Military women described a typical day in their lives, including the factors associated with their pain and how their quality of life has been affected. When appropriate, probing questions were used to achieve a richer description of life with chronic pain. The experience of living with chronic pain was the phenomenon of interest.

Phenomenology is rooted in philosophy, psychology, and education and is used to understand human experiences or phenomena of interest.<sup>26-28</sup> Phenomenology is a descriptive, reflective, and interpretive method; an inquiry into the essence of an individual's perception at the moment of the experience.<sup>29,30</sup> This study utilized van Manen's phenomenological approach of analyzing data by gaining a deeper understanding of the essence of living with pain.<sup>30,31</sup>

### **Inclusion and Exclusion Criteria**

The inclusion criteria for participation in this study were active duty, retired, or veteran women, age 18 years and older, and experiencing chronic pain for more than 3 months. The exclusion criterion for this study was a terminal illness.

### **Setting and Recruitment**

After obtaining approval from the Institutional Review Board at the University of San Diego, potential participants were identified by using a recruitment flyer in collaboration with the Foundation for Women Warriors, a nonprofit organization. On June 28, 2020, the recruitment flyer was sent electronically throughout the USA.

Once participants expressed an interest in participating in the study, they received an announcement letter, informed consent form, and demographic data survey via email. Consents and the demographic data survey were returned using the university's email account, except for two participants who mailed their consent letter and demographic data survey to the researcher's home address due to a lack of electronic support. Participants received a copy of the consent form for their files,

and a Zoom meeting was scheduled at their convenience with a specified date and time.

Thirteen participants met the inclusion criteria: active duty, retired, or veteran woman experiencing chronic pain for more than 3 months. Study participants comprised a diverse group who served in the Army, Navy, Air Force, and Marine Corps and resided in various locations across the USA.

**Data Collection**

After written informed consent was obtained, semi-structured, digitally recorded Zoom interviews were conducted and demographic data surveys were completed by the participants. The data survey included age, race, ethnicity, religious affiliation, marital status, military service, military status, work assignment, highest education earned, duration of pain, medications, nonpharmacological therapies, and number of deployments. From July through September 2020, Zoom audio-recorded interviews were conducted in the participant’s own home environment, except for one who participated from work. The interviews took between 30 and 60 minutes to complete. Participants responded to the research question, “What is it like to live with pain?” They were also asked probing questions such as “What does the pain feel like? Can you describe how a typical day feels with pain? What is a good day? What is a bad day? Is there anything else you would like to share about your experience living with pain?”

Interviews were professionally transcribed. To ensure accuracy, the researcher compared the written transcriptions to the audio-recorded Zoom interviews to verify that the interviews had been transcribed verbatim. The researcher then examined the transcripts to uncover the structural descriptions of the personal life story and to analyze the essence of the experiences. Confidentiality was protected by removing the participants’ names from the transcripts and using only a study ID code with a number (e.g., participant 1). The size of the sample was sufficient to achieve saturation.

**Data Analysis**

Immediately following the interview, the researcher’s impressions were recorded for subsequent analysis as contextual information. The method focused on exploring what military women had in common as they described the wholeness of the individual experience with pain. Data were composed of field notes, reflections, and analytic memos. The transcripts and data were analyzed for major themes and the essence of the lived experience of chronic pain. Manual methods (e.g., highlighters and Post-it notes) were utilized as well as using NVivo qualitative software (ORS International, 2020).

The thematic analysis for organizing data into themes followed van Manen’s six-step methodological framework. The procedural steps for phenomenological research were to (1)

describe the lived experience of chronic pain, the phenomenon of interest; (2) investigate the lived experience of pain as we live it; the state of mind including the feelings, the mood, and the emotions; (3) characterize essential themes through reflection; (4) write and rewrite about the pain experience for thematic representation; (5) relate the essence of the pain experience within the framework of the study question; and (6) interpret and reflect on the transcripts in segments and balance that with the totality of the pain experience.<sup>29</sup> Transcripts were reviewed multiple times, comparing their reflections with eight essential themes of pain that provided a detailed description representing the phenomenon of interest.

**RESULTS**

**Sample Demographics**

Participants ranged in age from 31 to 65 years, served in the military from 4 to 34 years, and had up to nine deployments overseas. These military women had various occupations (e.g., health care, aviation, intelligent officer, transportation, mechanic, truck driver, drill instructor, and electronic

**TABLE I.** Demographic Information for Study Participants

Category	N	%
Race/Ethnicity		
Black or African American	4	31%
Hispanic or Latino	1	8%
Asian-American/Pacific Islander	1	8%
White or Caucasian	7	54%
Marital status		
Single	4	31%
Divorced	4	31%
Married	4	31%
Widowed	1	8%
Religion (self-report) <sup>a</sup>		
Catholic	3	23%
Christian (other)	3	23%
Spiritual	1	8%
Jewish	1	8%
Baptist	2	15%
Mormon	1	8%
None	2	15%
Highest education level		
Some college	4	31%
College degree	9	69%
Rank		
Enlisted (E1-E9)	6	46%
Officer (O1-10)	7	54%
Military service		
Army	2	15%
Air Force	1	8%
Navy	6	46%
Marines	4	31%
Military status		
Active	6	46%
Retired	5	38%
Veteran	2	15%

<sup>a</sup>Baptist, Mormon, and Christian (other) are all Christian religion.

technician). Please refer to [Table I](#) for further demographic information.

**Themes**

The military women in this study provided rich descriptions of their experiences with chronic pain. Eight key themes emerged from the participants’ experiences: (1) living with chronic pain is frustrating, persistent, daily, and an hourly struggle; (2) resilience in living with chronic pain is the new

normal; (3) mission first and the impact of invisible pain; (4) self-care management and the internal locus of control in using nonpharmacological therapies; (5) pain accepted and managed to improve quality of life; (6) coronavirus disease (COVID-19) diminished social interactions; (7) pain of sexual trauma is not reported; and (8) disparities in health care due to self-perception of provider bias as pain is not understood. Examples of exemplar quotes for each theme are listed in [Table II](#).

**TABLE II.** Themes and Exemplar Quotes from Qualitative Analysis

Theme	Exemplar quotes from military women living with chronic pain
1. Chronic pain is a Frustrating, Persistent, Daily, and an Hourly Struggle	<ul style="list-style-type: none"> <li>● “A constant internal battle, managing pain is done or experienced on an ongoing, daily basis.”</li> <li>● “It’s pretty frustrating because you – well, you’re one person 5 years ago and you’re a totally different person now.”</li> <li>● “It is more constant than intermittent. On average, it sits at a 5/6. It can get to an 8 at night.”</li> <li>● “Frustrating, stressful, sometimes depressing, aggravating. You just want to scream.”</li> </ul>
2. Resilient in Living with Chronic Pain is the New Normal	<ul style="list-style-type: none"> <li>● “I love to run 5 miles a day, and I cannot do it anymore. So, I tried to say that even though I was in pain at times, I tried to be as active as possible. I still do. I push myself. I try to ignore the pain and keep going.”</li> <li>● “I’m on the Team [Name]for the Warrior Games and Team USA for Invictus, an adaptive sports program for people in the military who’ve been injured. It’s so beneficial for me mentally, emotionally, and physically to be a part of this team that coming together to heal and learn how to adapt to the injuries that they’ve sustained.”</li> <li>● “I’ve learned to live with it. Tough it out and it becomes your new normal, being in pain.”</li> </ul>
3. Mission First and Impact of Invisible Pain	<ul style="list-style-type: none"> <li>● “Do your job and deal with the pain. It’s a struggle – be strong and do your job; no one wants to talk about it. You learn to live with it.”</li> <li>● “Trying to work out as much as I can. I do not want to be on extra medications. So, you avoid talking about it as much as possible and play it all down.”</li> <li>● “The military teaches you, ‘You need to tough it out and do what you need to do.’”</li> <li>● “I push myself. I try to ignore the pain and keep going.”</li> </ul>
4. Self-Care Management—The Internal Locus of Control in Using Non-pharmacological Therapies	<ul style="list-style-type: none"> <li>● “The first two hours of the day, I take care of myself, and I’m good for the whole day. I manage it through yoga, stretching, and walking.”</li> <li>● “Maintaining movement—“Motion is lotion.”</li> <li>● “You need to work out to maintain a sense of life.”</li> <li>● “The secret to life is mobility.”</li> <li>● “I try to maintain a positive attitude, develop coping strategies, and eat a gluten free diet to mitigate the pain.”</li> <li>● “First thing in the morning, I already expecting pain. So, another one of my routines is, I use Bio freeze for my lower back.”</li> </ul>
5. Pain Accepted and Managed to Improve Quality of life	<ul style="list-style-type: none"> <li>● “I’m not as depressed as I used to be, but that pretty much gone. So, it’s just, wake up, workout, don’t force yourself, take your time, so, it’s better.”</li> <li>● “Because you have to learn how to function with it, I have to learn how to still be a full-time mom. Get my degree. Volunteer. Try to work.”</li> <li>● “It is definitely something I live with every day. I would say on average my pain is a 6 or a 7. Well, it’s debilitating, I spend many hours of my day trying to mitigate the pain.”</li> <li>● “I walk on cement a lot because I am a warehouse supervisor. So, I wear supportive boots, steel toe boots. Those boots provide support for my lower back. So, if I’m cooking or going to be on my feet, I wear my boots.”</li> </ul>
6. COVID-19 Decreased Social Interaction	<ul style="list-style-type: none"> <li>● “I retired in April. Because of COVID-19, getting a doctor appointment is hard because I’m a new patient. I have been taking less medication than I normally want to take, so I can make sure it lasts for a longer period of time in case I can’t get a prescription.”</li> <li>● “I do a lot of things to mitigate the pain, ...With COVID-19 all the things shut down like physical therapy, massage, or acupuncture, but luckily I was able to get me a TENS unit prescribed, and they send me new pads once a month and that helps just alleviate that chronic tension.”</li> <li>● “I prefer to keep it [gatherings] to really three or less, including myself because that just seems a bit more manageable for me than a lot of people. COVID-19 has been great for me because it gives me an excuse to be anti-social.”</li> </ul>

(continued)

TABLE II. (Continued)

Theme	Exemplar quotes from military women living with chronic pain
7. Pain of Military Sexual Trauma is Not Reported	<ul style="list-style-type: none"> <li>● “I really wanted to stay in and retire, but I was harassed. It was just too bad, I got out. I was the only woman in that field at the time in my shop, and the men did nothing but harass me.”</li> <li>● “I can deal with the TBIs, the neck and back pain, the nerve pain from all the injuries from the job because I knew that I was willing to give my life when I signed up for the military, but what I can’t handle is what I’ve gone through mentally, emotionally, and physically when it comes to being raped by your own ‘brothers.’ . . . I stored it all down; it took its toll and all the pain.”</li> <li>● “I was sexual assaulted, but I do now want to talk about it.”</li> </ul>
8. Disparities in Health Care due to Self-perception of Providers’ Bias as Pain is Not Understood	<ul style="list-style-type: none"> <li>● “Being an African American person, I don’t get treated medically the best I could be, is my opinion. I tell them I have this pain, and they do an X-ray or MRI, but I don’t see anything. Something is wrong with me.”</li> <li>● “I am a female, and a minority and when I say I’m in pain, how I am viewed just like with the unconscious bias - as I said – because I’m a very small segment of a pretty large population.”</li> <li>● “I’ve seen the difference on active duty, and I see the difference now. My husband gets better health care than I do. It’s like I have to fight and push to get better care.”</li> <li>● “Women get discounted because they are too sensitive. And so, many of my concerns regarding the pain, is really for the care after I get out. But often times, female-specific pain is overlooked.”</li> </ul>

**Theme 1: chronic pain is frustrating, persistent, daily, and an hourly struggle**

A key finding of the participants’ lived experience with chronic pain was identified as, “living with chronic pain was frustrating, persistent, daily, and an hourly struggle.” All 13 participants described their stories of living with pain, how pain had changed their lives, how they coped with pain, and how they used strategies to manage their discomfort every day. Participants also shared their struggle with the psychological factors associated with chronic pain (e.g., depression, anxiety, sleep disturbances, PTSD, TBI, migraines, and MST).

**Theme 2: resilience in living with chronic pain is the new normal**

All 13 participants acknowledged living with and managing chronic pain. Participants accepted their chronic pain, managed life accordingly, and worked to improve their quality of life. They gave examples of how they had to mitigate the pain by staying active through walking, yoga, eating a restrictive diet with intermittent fasting, and using multimodal and complementary and integrated health therapies. The participants reported positive characteristics of optimism, purpose of life, and acceptance with pain as the new normal.

**Theme 3: mission first and the impact of invisible pain**

Participants described the essence of “ignoring pain to push through;” no one wanted to be viewed as weak. Complaining about pain was stigmatizing. Women who were still serving in the military were focused on the mission first and ignored the pain. Participants stated that they did not want to be viewed as weak or labeled with the stigma of complaining about pain as they would be looked down upon by peers and leaders. Participants also stated, “You are in the military and are supposed to be strong.” Several participants stated that they feared being

discharged or medically retired when they could no longer support the mission due to chronic pain.

**Theme 4: self-care management—the internal locus of control in using nonpharmacological therapies**

All 13 participants were managing their chronic pain with self-care management strategies and treatments. They identified a variety of positive coping strategies. Participants shared that they did not want to take opioids for fear of how it made them feel, preventing them from doing their jobs. All participants were involved with self-care management, their internal locus of control, and maintaining movement. As one participant put it, “Motion is Lotion.”

Participants learned varying techniques to help manage pain. For example, participants were proactive with complementary and alternative techniques, using nonpharmacological and non-interventional pain therapies. Techniques included meditation, massage, spinal manipulation, chiropractic, acupuncture, yoga, gentle stretching, walking, low-impact aerobic exercise, physical therapy, transcutaneous electrical nerve stimulation (TENS), and heat-and-cold therapies (e.g., Bio freeze, heat, Icy Hot, topical balm, and hot shower).

All participants used over-the-counter pharmacological therapies such as Tylenol and nonsteroidal anti-inflammatory drugs. The muscle relaxant, Flexeril, was used as a last resort when pain was intolerable. Opioids were reserved for severe pain (e.g., 7-10 on the pain scale); however, use was limited due to the fear of addiction, having a young child or teenager around, or waiting to get access to the VA health care system after retirement. Some participants were also using anticonvulsants and antidepressants to help manage their chronic pain. All but four participants were seen in a pain clinic. In addition, multimodal strategies were used by the participants. Eleven participants used targeted injections

(e.g., trigger-point and epidural steroid) and one participant also had radiofrequency ablation.

### **Theme 5: pain accepted and managed to improve quality of life**

Another key finding was that the participants recognized they were living with chronic pain and were motivated to improve their quality of life through a variety of strategies. Musculoskeletal injuries (e.g., lower back and neck) were identified as a prevalent cause of pain, resulting in chronic pain conditions such as migraines, torn labrum, osteoarthritis, scoliosis, endometriosis, and fibromyalgia that negatively impacted their quality of life. As participants accepted living with chronic pain, they sought to find strategies to help them reduce their pain levels. Many made an effort to stay active in their daily routine by stretching, engaging in exercises (e.g., walking and low-impact exercise), complementary medicine (e.g., meditation, acupuncture, spinal manipulation therapy, yoga, and massage), non-opioid drugs, physical therapy, and surgery.

The majority of participants were reluctant to use opioids to reduce their pain levels due to fear of addiction and the potential negative side effects of medications that could impact activities of daily living. Instead, participants used pharmacological therapies such as over-the-counter acetaminophen and ibuprofen, which improved pain levels and contributed to reduced opioid use. Two participants had hip surgery that decreased pain improving their quality of life. Another two participants used TENS unit to decrease and manage pain levels. For one participant wearing supportive boots was helpful. The participants acknowledged that living with chronic pain was a lifelong condition.

### **Theme 6: COVID-19 diminished social interactions**

The COVID-19 pandemic compounded already decreased social interaction associated with chronic pain, making it difficult to access health care. All participants reported managing their pain during the pandemic by using alternative approaches like physical therapy exercises with or without a TENS unit and stretching at home. Two participants managed their pain with medications during their transition to the VA health care system since access was limited after retirement. Two participants installed hot saunas in their home during COVID-19 to help with pain management. Several participants either worked from home or recently retired from military service.

### **Theme 7: pain of sexual trauma is not reported**

While on active duty, four participants acknowledged being sexually assaulted and did not report it. They relayed that reporting MST would lead to stigma, lack of confidentiality, discharge, or end their military career. The pain of MST was compounded by their chronic pain/PTSD from military

injuries and combat experiences. Participants described their experience dealing with chronic pain and the impact a rape had on their mental, emotional, and physical health. One participant described her debilitating pain as a “6” or “7” and spent hours each day trying to mitigate pain using meditation, yoga, physical therapy, a restrictive diet, and intermittent fasting to decrease inflammation. She also did artwork, made jewelry, gardened, and walked her dog. In addition, the participant remained active through adaptive sports that helped her mentally, emotionally, and physically to heal. Another participant explained her challenges of dealing with chronic pain, severe PTSD, depression, anxiety, migraines, stress, obesity, sleep disturbance, and nightmares, as well as fibromyalgia. The participant was on active duty during the interview but later was medically retired. She received a referral to the pain psychologist at the VA. Her pain was evident, but she was able to decrease it by practicing daily meditation and mindfulness as well as focusing on self-care.

### **Theme 8: disparities in health care due to self-perception of providers’ bias as pain is not understood**

The participants reported unconscious gender bias, health disparities, and the lack of health care professional awareness. In other words, chronic pain is not understood in military women. Six participants living with chronic pain stated their perception of health care providers’ bias in race and gender. Three of these six participants were African American, two were Caucasian, and one was Asian-American. Six military women felt that they were poorly understood and that their pain was not taken seriously by their health care provider. Two participants stated their husbands received better health care and that they had to fight to get better care. Two other participants explained that they were getting ready for retirement from the service and were taking a more active role in seeking better health care.

## **DISCUSSION**

The findings of this study described the lived experience of military women with chronic pain and examined a typical day in their lives. This study is unique and offered robust descriptions by 13 participants. Their stories provided an important understanding of the phenomenon of chronic pain. All participants described the deeper meaning and essence of their lived experiences with chronic pain as frustrating, persistent, excruciating, debilitating, constant, daily, and an hourly struggle. Literature supported their descriptions illustrating pain as “an unpleasant sensory and emotional experience associated with, resembling that association with, actual or potential tissue damage.”<sup>32</sup>

The results of this study are consistent with previous research studies conducted on chronic pain in military and veteran women populations and reveal that the most common types of chronic pain were musculoskeletal conditions (e.g., back and neck), osteoarthritis, and fibromyalgia.<sup>3,33</sup>

Research studies also documented a higher prevalence of women reporting pain than men.<sup>8,12</sup> Similar to this study's findings, several studies reported that chronic pain was associated with depression, anxiety, headaches, migraines, sleep disturbances, fibromyalgia, PTSD, TBI, obesity, substance use, alcohol abuse, unreported MST, and sexual harassment in military women who were on active duty and/or served in the wartime theater (e.g., Gulf War, Operation Enduring Freedom, Operation Iraqi Freedom, and Operation New Dawn).<sup>6,8,9,33</sup>

Research studies indicated that sexual abuse continues in the military branches, with 25% of women reporting sexual assaults and as many as 80% being harassed.<sup>33</sup> These findings are consistent with statistics showing that sexual assault has been reported in 32% of women during their military career, including deployments to Iraq and Afghanistan.<sup>15</sup> The Navy and Marine Corps women had the highest rates of MST compared to other service branches.<sup>15</sup> Four participants in this study acknowledged MST but did not report the abuse. One described sexual harassment but did not label it as such. For some, the fear of reporting sexual trauma would lead to stigma, lack of confidentiality, distance by colleagues, discharge, or reputation damage that would end one's military career.<sup>33</sup> The pain of MST compounded with PTSD and depression from combat injuries were risk factors.<sup>17</sup> These findings supported the importance of screening/destigmatizing disclosure for MST and could help in understanding military women's chronic pain experience.<sup>33</sup>

Participant observations were also supported in the literature: (1) disparity of treatment, (2) provider bias regarding gender and/or ethnic minorities, and (3) an unwillingness of the provider to listen to their concerns.<sup>34,35</sup> The study findings have clinical implications for health care providers as well as military and civilian nursing in understanding military women's chronic pain, improving patient-provider communication skills, and advocating for diverse and culturally sensitive health care for military women.<sup>35</sup>

Chronic pain is subjective and requires a holistic approach. Therefore, the biopsychosocial model served as the holistic framework for this phenomenological study. This study provided new research inquiry to understand pain from the military women's perspective, gain insight into the pain experience, and manage chronic pain appropriately.<sup>29-31</sup> The adapted biopsychosocial model included biological, psychological, and social factors that integrated the whole person with the mind and body from the military women's perspective.<sup>30-32</sup> Understanding the unique medical needs of women is vital for full integration into the military, and chronic pain experienced by service members is poorly understood. Furthermore, awareness of chronic pain and gender-specific health care is essential to military operational readiness and improving long-term health-related quality of life with multiple deployments.

## **Study Strengths and Limitations**

This study's pursuit was to reveal the meaning of the phenomenon of chronic pain in military women warriors. The researcher developed a personal connection with the participants to facilitate conversation and to make each participant feel comfortable before the Zoom interview, despite restrictions on personal contact during the COVID-19 pandemic. This study's strength was a process starting with a simple demographic survey that allowed the researcher to gain a trusting relationship before the interview commenced. Other strengths in this study were that the researcher was a female and had served as a Navy nurse in the military. Military women also appreciated the opportunity to share their stories. A notable strength of this study was the participants. These military women represented all major branches (i.e., Army, Navy, Air Force, and Marine Corps), included both enlisted personnel and officers from diverse races/ethnicities, and all but two participants experienced deployments into combat zones; as many as nine deployments. Additionally, this qualitative study addressed the paucity of research of military women's lived experience with chronic pain.

One limitation of this study was the internet instability during the interviews in which Zoom would freeze up or there was a poor internet connection between the interviewer and the participant. The second limitation was that the Reserve and National Guard community did not participate in the study.

## **CONCLUSION**

In summary, this qualitative study described women's experience with chronic pain within the military service and addressed the gaps in research. Analyzing the breadth of 13 military women who shared their stories helped in understanding the chronic pain experience and will contribute to military women's health. The most notable highlights in this research are the themes of self-care management, internal locus of control in using nonpharmacological therapies, pain of sexual trauma not being reported, and disparities in health care due to self-perception of providers' bias as pain is not well understood.

The results of this phenomenological study generated new knowledge in Force Health Protection ensuring (1) a fit and operational readiness force; (2) pre- to post-deployment care for women warriors; and (3) access to health care. Future studies should explore mental health implications, as military women reported signs and symptoms of depression, anxiety, PTSD, TBI, insomnia, migraines, and MST associated with chronic pain. This study's findings support previous research and can help direct future research into nursing, medicine, and allied health treatment for military and veteran gender-specific health care, education, and training. Important implications for military and civilian clinicians include incorporating nonpharmacological therapies when treating military women and veterans. Further studies should explore

unconscious gender bias, health disparities, and health care professionals' awareness in understanding military women with chronic pain. Future research needs to address the impact that COVID-19 made on health care access, restricted social interaction, and the ability to be seen by a provider. Findings from this study merit further exploration using other qualitative research methodologies including mixed methods.

### ACKNOWLEDGMENT

The authors would like to thank the Foundation of Women Warriors and the military women who shared their stories about living with chronic pain for this research study.

### FUNDING

None declared.

### CONFLICT OF INTEREST STATEMENT

None declared.

### REFERENCES

1. Center for Disease Control and Prevention: Prevalence of chronic pain and high impact chronic pain among adults-United States. 2016. Available at <https://www.cdc.gov/mmwr/volummes/67/wr/mm673a2.htm>; accessed May 2018.
2. The National Academies collection: Institute of medicine committee on advancing pain research, care education. *Relieving pain in America: A blueprint for transforming the prevention, care, education, and research*. National Academies Press; 2011.
3. Taylor SL, Herman PM, Marshall NJ, et al: Use of complementary and integrated health: a retrospective analysis of U.S. Veterans with chronic musculoskeletal pain nationally. *J Altern Complement Med* 2018; 25(1): 32–9.
4. Toblin RL, Quartana PJ, Riviere LA, Walper KC, Hoge CW: Chronic pain and opioid use in US soldiers after combat deployment. *JAMA Intern Med* 2014; 174(8): 1400–14001.
5. Jonas WB, Schoemaker EB: Pain and opioids in the military: we must do better. *JAMA Intern Med* 2014; 174(8): 1402–3.
6. Schoneboom BA, Perry SM, Barnhill WK, Giordano NA, Nicely KW, Polomano RC: Answering the call to address chronic pain in military service members and veterans: progress in improving pain care and restoring health. *Nurs Outlook* 2016; 64(5): 459–84.
7. Dye JL, Eskridge SL, Tepe V, Clouser MC, Galameau M: Characterization and comparison of combat-related injuries in women during OIF and OEF. *Mil Med* 2016; 181(1): 92–8.
8. Haskell SG, Yuming N, Krebs E, Goulet J, Mattock K, Brandt C: Prevalence of painful musculoskeletal conditions in female and male veterans in 7 years after the return from deployment in Operation Enduring Freedom/Operation Iraqi Freedom. *Clin J Pain* 2012; 28(2): 163–7.
9. Higgins DM, Kerns RD, Brandt CA, et al: Persistent pain and comorbidity among Operation Enduring Freedom/Operation Iraqi Freedom/Operation New Dawn veterans. *Pain Med* 2014; 15(5): 782–90.
10. Department of Defense: Demographic: profile of the military community. 2020. Available at <https://download.militaryonesource.mil/12038/MOS/Reports/2020-demographics-report.pdf>; accessed March 28, 2022.
11. McGraw K, Koehlmoos TP, Ritchie EC: Women in combat: framing the issues of health and health research for America's servicewomen. *Mil Med* 2016; 181(Suppl 1): 7–11.
12. Haskell SG, Heapy A, Reid MC, Papas RK, Kerns RD: The prevalence and age-related characteristics of pain in a sample of women veterans receiving primary care. *J Womens Health (Larchmt)* 2006; 15(7): 862–9.
13. Driscoll MA, Higgins DM, Seng EK, et al: Trauma, social support, family conflict, and chronic pain in recent service veterans: does gender matter? *Pain Med* 2015; 16(6): 1101–11.
14. Maiocco G, Smith MJ: The experience of women veterans coming back from war. *Arch Psychiatr Nurs* 2016; 30(3): 393–9.
15. Parnell D, Ram V, Cazares P, Webb-Murphy J, Roberson M, Ghaed S: Sexual assault and disabling PTSD in active-duty service women. *Mil Med* 2018; 183(9/10): e481–8.
16. Morasco BJ, Lovejoy TI, Lu M, Turk DC, Lewis L, Dobscha SK: The relationship between PTSD and chronic pain: mediating role of coping strategies and depression. *Pain* 2013; 154(4): 609–16.
17. Adams RS, Nikitin RV, Wooten NR, William TV, Larson MJ: The association of combat exposure with post deployment behavioral health problems among U.S. Army enlisted women returning from Afghanistan or Iraq. *J Trauma Stress* 2016; 29(4): 356–64.
18. Strander VA, Thomsen CJ: Sexual harassment and assault in the U.S. military: a review of policy and research trends. *Mil Med* 2016; 81(1, suppl): 20–7.
19. Rhodes C: Addressing chronic pain in the United States armed forces. *Practical Pain Mgt* 2017; 17(8): 1–7.
20. Bolton RE, Fix GM, Lukas CV, Elwy AR, Bokhour BG: Biopsychosocial benefits of movement-based complementary and integrative health therapies for patients with chronic conditions. *Chronic Illn* 2020; 16(1): 41–54.
21. Tick H, Nielsen A, Pettetier KR, et al: Evidence-based nonpharmacologic strategies for comprehensive pain care: the consortium pain task force white paper. *Explore (NY)* 2018; 14(3): 177–211.
22. Lee C, Crawford C, Swann S: Multimodal, integrative therapies for the self-management of chronic pain symptoms. *Pain Med* 2014; 5(Suppl 1): S76–S85.
23. Dueñas M, Ojeda B, Salazar A, Mico JA, Failde I: A review of chronic pain impact on patients, their social environment and health care system. *J Pain Res* 2016; 9: 457–67.
24. Engel GL: The need for a new medical model: a challenge for biomedicine. *Psychodyn Psychiatry* 1977; 40(3): 377–96.
25. Gatchel RJ: The continuing and growing epidemic of chronic lower back pain. *Healthcare (Basel)* 2015; 3(3): 838–45.
26. Creswell JW, Poeh CN: *Qualitative Inquiry and Research Design: Choosing among Five Approaches*. 4th ed. Sage; 2018.
27. Munhall PL: *Revisioning Phenomenology: Nursing and Health Research*. National League of Nursing Press; 1994.
28. Polit DF, Beck CT: *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. 10th ed. Wolters Kluwer Health; 2017.
29. van Manen M: *Researching Lived Experience: Human Science for an Action Sensitive Pedagogy*. Althouse Press; 1990.
30. Lincoln YS, Guba EG: *Naturalistic Inquiry*. Sage; 1985.
31. Errasti-Ibarrodo B, Jordán JA, Díez-Del-Corral M, Arantzamendi M: van Manen's phenomenology of practice: how can it contribute to nursing? *Nurs Inq* 2019; 26(1): e12259.
32. International Association for the Study of Pain: IASP announces revised definition of pain. 2020. Available at <https://www.iasp-pain.org/publications/iasp-news/iasp-announces-revised-definition-of-pain/>; accessed March 28, 2022.
33. D'Aoust RF, Rossiter AG, Elliott A, Ji M, Lengacher C, Groer M: Women veterans, a population at risk for fibromyalgia: the association between fibromyalgia, symptoms, and quality of life. *Mil Med* 2017; 182(7): e1828–35.
34. Maina IW, Belton TD, Ginzberg S, Singh A, Johnson TJ: A decade of studying implicit racial/ethnic bias in healthcare providers using the implicit association test. *Soc Sci Med* 2018; 199: 219–29.
35. Conard PL, Armstrong ML: Deployed women veterans: important culturally sensitive care. *Nurs Forum* 2015; 2(4): 225–31.