ETHNOGRAPHY OF CHRONIC PAIN EXPERIENCES OF ENLISTED WOMEN

By

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ABSTRACT

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The American Pain Foundation reported in 2006 that 32% of military men and women with chronic pain reported that military culture is a barrier to pain care and receiving pain care jeopardized their career. Pain management required a series of understandings about pain in the military that motivated enlisted women's pain perceptions, pain behaviors, and pain relief strategies. The seen and unseen factors were ever-present in military life and contributed to the chronic pain experiences of enlisted women but to what degree was largely unknown.

This ethnographic approach produced brief illustrations of pain beliefs, attitudes, and behaviors that enlisted women understand to be true. This research represented the reality of enlisted women's chronic pain experience using semi-structured interviews of 14 enlisted women who ranged between 28 and 59 years of age and represented the Army, Air Force, and Navy/Coast Guard. The female health care providers included two physicians, one women's clinic coordinator, and three staff nurses. The themes included Mission First, call out the weak, customs & courtesies, pride, seeking care, stigma, guilt, pain management, decisions, and control. Providers themes included pain is complex, deteriorating potential, seeking care, pain management, communication.

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CHAPTER 1

INTRODUCTION

Background and Significance

Chronic nonmalignant pain is common in women (Kerssens, Verhaak, Bartelds, Sorbi, & Bensing, 2002). In fact, Berkley (1997) established in her review about one-half of 78 pain conditions affected women disproportionately than men. Dobie, et al. (2004) documented that women identified with posttraumatic stress disorder (PTSD) were two times more likely to report pain. Evidence supports that among 236 military women, 77.8% report chronic pain conditions (Haskell, Heapy, Reid, Papas, & Kerns, 2006). Frayne et al. (2006) found military women with a serious medical condition exhibited a marked increase in bodily pain compared to women receiving care in the private sector. In this same study, military women were found to generally exhibit poor health.

Since most chronic pain conditions are prevalent in women, one might expect that the high prevalence of chronic pain conditions in enlisted women is a consequence of being a woman (King, 1999; Marmot, 2004). Women with a high prevalence of chronic pain are more likely to be of lower socioeconomic status, poor, and have little control over their lives (King, 1999; Chibnall & Tait, 2005; Marmot, 2004). In fact, contextual factors arbitrate the extent an illness has on function (Frayne et al, 2006). For example, the social context in which pain patients live, work, and how they perceive their social support, all influence the ability to manage chronic pain.

Little is known about the effect of military culture and exposure to this culture on enlisted women's health and health behaviors. Notwithstanding, the psychosocial and cultural aspects that influence health are largely interwoven within the context of military life that influence enlisted women's' health and their health behaviors. Enlisted women's increased risk of chronic pain is likely due to living and working conditions that are similar to civilian women experiencing chronic pain compounded by extreme conditions within military culture that are not experienced by civilian women. Enlisted women are experiencing some reported, and probably underreported, factors contributing to their inability to control their environment and therefore their health. The seen and unseen factors that are ever-present in military life are likely contributing in the ability of enlisted women to manage their chronic pain but to what degree is largely unknown.

Since no studies were found inviting enlisted women to disclose what they believe and know to be true about the influence of military culture on their personal chronic pain experience, the factors that influence the chronic pain experience in enlisted women remain unknown. Therefore, enlisted women are at risk for ineffective pain control and poor pain outcomes. Pain treatment and delivery approaches have been developed from predominantly male samples and women service members have been historically overlooked due to small numbers and exclusionary practices. Women service members have reported a 77.8% prevalence of pain that contributes to poor health of these women and merits investigation (Haskell, Heapy, Reid, Papas, & Kerns, 2006).

Women are an emerging minority in the Department of Veterans Affairs (Washington, Yano, Goldzweig, & Simon, 2006). In 1973, 55,000 women in active duty made up 2.5% of the armed forces and by 2005, the number of women quadrupled to exceed 202,000 or 14% (Department of Defense, 2005; Klein, 2005). Active duty includes military nurses, officers, and enlisted personnel. The total number of women veterans numbered 1, 744,580 of the total veteran population of 23.5 million in 2007 (Department of Veteran Affairs Center for Women, 2007). Women serving in the armed forces will continue to rise from 1.6 million in 2000 to 1.8 million and 1.9 million in 2010 and 2020, while the white male population is projected to decline from 24.8 million to 16.2 million during the same period (Department of Defense, 2005; Office of the Actuary, 2004). In 2005, 14% of the active duty personnel are represented by women and of those represent 5.5% of the 25 million veterans (Department of Defense, 2005).

Anticipating the increase in women serving in active duty, the Department of Veteran Affairs identified the urgent need to underscore the importance of planning resources and health care needs of women serving in the military (Klein, 2005). According to the U.S. Census Bureau (2007), 30% of these women were more likely to identify themselves as minority. Based on these growing numbers, the Department of Defense and Department of Veterans Affairs targeted women's health as a research priority (Perlin, Mather, & Turner, 2005; Veterans Health Initiative, 2005). This study will focus only on enlisted women because of their military duties, which include exposure to hazardous conditions including war.

Women veterans represent 10% of Department of Veteran Affairs consumers in 2010 (Goldzweig, Balekian, Rolón, Yano, & Shekelle; US General Accounting Office [GAO], 1999). In 2006, the top diagnostic categories for women treated in VA facilities were PTSD, hypertension, and depression (Department of Veteran Affairs, 2007). As an emerging group of Veteran Health Care consumers, gaps remain in providing gender-specific care to women (Defense Women's Health Research Program (DWHRP), 1994; Washington, Yano, Goldzweig, Simon, 2006; GAO, 1999). In 2004, the VA Women's Health Research Planning Group identified research priorities in women's health and, in April 2005, a solicitation targeting research studies assessing chronic illnesses of women included pain (Fihn, 2004; Meehan, 2006; GAO, 1999; Yano et al, 2006).

Hence, it is the contention of this researcher that a larger proportion of factors exist within the context of the military culture that, despite the mediating individual characteristics of enlisted women, are more likely to contribute to the increased prevalence of chronic pain in women in the United States military. Until enlisted women identify these factors, pain will continue to be prevalent, remain under treated, and lead to chronic pain conditions, which have the potential to continue in civilian life, negatively affecting quality of life for these women (Skevington, 1998).

Philosophical Perspective

Ethnography allows the voices of enlisted women to be heard (Thomas, 1993). Every culture has designed a system for explaining experiences in meeting the demands of everyday living. These shared ideas and experiences take shape in the form of beliefs and ideas about chronic pain. Enlisted women experiencing chronic pain hold pain beliefs that are communicated to other individuals with whom they interact. Enlisted women in pain observe pain behaviors in other enlisted women and these behaviors are transferred to other enlisted women members. These pain beliefs and behaviors become routine in the sense that the behaviors long outlive these women in the biological sense (Anderson, personal communication, 2008). These beliefs are in play in everyday living and are likely to have become the norm for women without realizing the impact they have on their chronic pain experience.

Pain management requires a sequence of understandings about the meaning of pain in the military, which because of these pain meanings, motivate enlisted women's pain behaviors, and pain relief strategies. These beliefs and perceptions about pain were discovered so that successful pain relief treatments for these women were revealed. The contention of the researcher is that ethnography is appropriate to capture the nuances that enlisted women encountered while living with chronic non-malignant pain that lasted at least three months (APS, 2008).

A long-established, biomedical approach dominated the pain research domain for decades and included physiological and medical domains of understanding and explaining pain. The hallmark of the biomedical approach is that the patient is analyzed as merely an object. Pain researchers in medicine, nursing, and psychology agreed there was a need to adopt a comprehensive approach to pain and in particular chronic pain. In response to this consensus about the understanding of pain, researchers decided to merge the biomedical, psychological, and social realms in a matrix model that resulted in a biopsychosocial approach to pain. A biopsychosocial model, which encompasses a holistic view of chronic pain, offers hope for chronic pain patients in their pursuit of pain relief. The hallmark of chronic pain treatment is based on the biopsychosocial model of pain (Gatchel, Peng, Fuchs, Peters, & Turk, 2007).

This researcher proposes to use the biopsychosocial model of pain because of the importance that culture is given in the pain model. A cultural component is highlighted in the social realm of the model that indicates that cultural factors influence the pain experience. The biopsychosocial model of pain will provide the underlying theoretical perspective for this proposal. Chronic nonmalignant pain will be defined in this study as pain that exists for three or more months (Bonica, 1990; Clark, 2007; Gatchel, personal communication, 2007). The conceptual model for this proposed study will highlight the social dimensions of the biopsychosocial model within the context of military culture. Since the chronic pain trajectory is influenced by the sum total of bio, psycho, and social dimensions of the biopsychosocial model of health and illness, it is unknown what factors within the context of military culture influence enlisted women’s chronic pain experiences.

Ethnography is appropriate for this research problem because ethnography can uncover the aspects of military culture and life that structure enlisted women’s chronic pain beliefs and perceptions, which in turn influence pain behaviors and pain care. Ethnography is a method that can reveal the characteristics of military culture that are understood as truths by enlisted women, and once revealed can determine for providers enlisted women’s’ motivations for pain behaviors and pain care. These beliefs about pain and pain care can be useful in that providers will be able to better assess and manage chronic pain care for enlisted women when they finally decide to seek pain care.

Purpose

The aim of this study is to give voice to enlisted women and their chronic pain experiences by describing those experiences after serving in the military. Additionally, this study will describe the perspectives of the health care providers who care for enlisted women in pain.

Assumptions

The assumptions are based on the researcher's review of the literature and professional working experience as an oncology nurse in pain management and include the following:

1. The cultural environment influences the chronic pain experience as much as the psychological and biological aspects of a person.
2. Military women's' chronic pain experiences are influenced by military life and culture.
3. Chronic pain experiences are influenced by beliefs about stoicism, war, and service in the United States military.
4. Pain management is influenced by the control military women believe they have over life.
5. Pain management is an active process involving patients and providers leading to positive or negative pain outcomes.

Summary

Enlisted women comprise an essential faction within the United States Armed Services, yet little is known about their unique health care needs and more importantly, their chronic pain care needs. Because enlisted women are under studied, ethnography is an ideal method to reveal the enlisted woman's' depiction of her experiences surrounding pain that motivates her pain behaviors and pain care. Ethnography is an appropriate method for uncovering the meaning that motivates enlisted women to organize their behaviors, understand themselves and other enlisted women, and to make sense out of the military world in which they lived (Spradley, 1979).

Enlisted women have acquired a set of cultural principles for acting and interpreting pain and pain care through a shared experience as enlisted women. Only they, as a unique group of service members, know these experiences about chronic pain and pain care. Therefore, enlisted women, through ethnography, can define for researchers their unique meaning that chronic pain has for them as enlisted women and what they believe to be true about chronic pain. Ethnography can discover cultural themes, which enlisted women use to connect the domains of their culture. The themes that are uncovered are “a postulate or position, declared or implied, and usually controlling behaviors or stimulating activities, which is tacitly approved or openly promoted in a society” (Opler, 1945, p 148).

CHAPTER 2

CRITICAL REVIEW OF THE RELEVANT LITERATURE

Introduction

This chapter will describe the population of enlisted women, a comprehensive review of the literature in pain, pain assessment, pain management, medical, psychological, and nursing perspectives on pain, chronic pain, gender and pain, chronic illness, culture, cultural meanings of pain, under treatment of pain, and military culture. The synthesis of the literature will include the existing scientific knowledge of the research problem and identify the gaps in the knowledge base.

Review of the Relevant Literature

The states with the largest numbers of enlisted women are California, Texas, Florida, Virginia, and Georgia (Department of Veterans Affairs, 2007). Anticipating the increase in women serving in active duty, the Department of Veteran Affairs identified the urgent need to underscore the importance of planning resources and health care needs of women serving in the military (Klein, 2005). Based on these growing numbers, the Department of Defense and Department of Veterans Affairs targeted women's health as a research priority (Perlin, Mather, & Turner, 2005; Veterans Health Initiative, 2005).

Research about enlisted women is of particular concern because of the vast numbers entering military service. The first national Veterans Women's Health Research Agenda, sponsored by the Veterans Administration Office of Research & Development, mapped women's research priorities and the Rehabilitation Workgroup recognized six priority research conditions; chronic pain being the second after arthritis (Yano et al, 2006). Unruh (1996) demonstrated that women have more pain than men and a more difficult time recovering from pain. Enlisted women rather than women officers and nurses are more exposed to severe weather conditions and trauma in the military that predispose them to painful conditions (Gatchel, personnel communication, 2008).

Survey findings about pain in veterans that included enlisted women reported ineffective pain management. More revealing was the fact that (32%) of those that responded reported, that military culture is a barrier to pain care and receiving pain care jeopardized their career (American Pain Foundation [APF], 2006). A robust review of the literature has resulted in no studies giving voice to enlisted women's chronic pain experiences (NIH Pain Consortium, 1998). Enlisted women's chronic pain experiences are dissimilar than men but these experiences are unknown and unexplored.

Pain Definitions

The word pain originated from *poena,* the Latin word meaning penalty, fine, or punishment (Taber's Cyclopedic Medical Dictionary, 2008). The International Association for the Study of Pain [IASP] (2008) defines pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage" (Merskey & Bogduk, 1994). Pain includes not only the perception of an uncomfortable stimulus, but also the response to that perception. Pain is a subjective experience and composed of numerous dimensions, which determine individual appraisal and expression of pain (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007; McCaffrey, 1968).

Physicians categorize pain using one of two classification methodologies (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007). One is based on the underlying pathology and is either nocicieptive or neuropathic. The American Pain Society states that pain is to be categorized as acute or chronic (American Pain Society [APS], 2008). The categorization of pain initiates the first step in pain assessment and treatment (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007). Comprehensive pain assessment and reassessment is the hallmark of effective pain management for every pain condition (Clark, Bair, Buckenmaker, Gironda, Walker, 2007).

Pain can be defined as acute, chronic, or cancerous. Cancer pain can be acute, chronic, or intermittent and is a result of a defined etiology related to a tumor or treatment of a tumor (APS, 2008). Cancer pain is caused by compression of the tumor, substances released from the tumor, and from cancer treatments, that each interferes with normal functioning. Acute pain is defined as pain that has a sudden onset and lasts for short periods (APS, 1999). Chronic nonmalignant pain is a result of non-life threatening causes, and can lasts for one's entire life (Wall & Melzack, 1999). This study will focus on chronic non-malignant pain.

Pain Assessment Variables

Since pain is a multidimensional experience, numerous variables must be assessed in order to determine an individuals' pain experience. The variables involved in pain assessment include physiologic, cognitive, behavioral, affective, and sociocultural dimensions (Fillingim, 2003; Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007). The physiologic includes the underlying genetic and physical determinants of pain and influence how an individual will recognize and describe pain. These physiologic dimensions are known as pain mechanisms and involve processes at the molecular level, known as nociception.

Nociception is composed of transduction, transmission, perception and modulation (Lewis, Heitkemper, Dirksen, O'Brian & Bucher, 2007). Pain characteristics include elements such as the site or sites, onset, duration, typical patterning, intensity, quality, factors aggravating or decreasing pain, and co-morbidities (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007). Physical dimensions vary despite similar medical diagnosis, which suggests that there are other contributory influences that affect intensity and response to treatments.

The cognitive dimension includes pain memories, beliefs, meaning, and coping styles and are influential on pain treatment responses (Jensen, Turner, & Romano, 1994) and adjustment (Jensen and Karoly, 1991; Jensen, Turner, Romano, & Lawler, 1994). Pain cognitions are the focus of pain psychologists and unfortunately often are delayed due to reimbursement issues. Cognitions include past pain experiences learned, whether or not to express pain, and the outcome if one freely expressed their pain. The meaning of pain is different for individuals and is a reflection of one's reality (Kleinmen, 1988). The meaning of pain can influence pain beliefs and attitudes predicting pain treatment outcomes (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007; Sterns, 1998).

The behavioral dimension refers to the observed actions and behaviors that are unique to individuals when experiencing pain. Individuals describe pain in terms of restrictions in activities or in terms of a pain management strategy to decrease pain intensity (Lewis, Heitkemper, Dirksen, O'Brian & Bucher, 2007). For example, one might employ frequent rest periods or modify their environment so pain will not worsen. Pain behaviors are commonly measured using observation and self-report (Labus, Keefe, & Jensen, 2003). Although both are commonly used by providers to measure pain intensity, the correlation is greater if the individual is experiencing acute pain and when pain intensity is measured right after the observation of the behavior and composite measure of pain is used (Labus, Keefe, & Jensen, 2003). Males are less likely than women to report pain and use alternative modalities for pain control (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007). Observation alone is unreliable in the assessment of pain.

The affective dimension is known as the emotional response to pain. The affective response to pain is defined as the degree of unpleasantness (Price, McGrath, Rafii, & Buckingham, 1983). Examples of emotional responses in pain patients are fear, hopelessness, helplessness, anger, anxiety, and depression (Turk, Swanson, & Tunks, 2008; Vlaeyen, Kole-Snijders, Boeren, & van Eek, 1995). Using the cognitive-behavioral representation of chronic pain disability, Vlaeyen, Kole-Snijders, Boeren, & van Eek, (1995) posited that pain intensity is a result of disability and depression, leading to fear of movement and thus decreases in activity. Fear, avoidance, and hyper vigilance behaviors become common in order to lessen the consequences of pain, and one such distortion is increased physical damage (Gatchel, Peng, Fuchs, Peters, & Turk, 2007).

The long-term effects of the emotional responses to pain are suffering and poor quality of life. Treating depression can improve suffering and reverse the long-term effects of pain if the intervention is swift and effective (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007). In actuality, symptoms of PTSD and depression increase the risk of a heightened pain experience and must be addressed simultaneously with pain to improve pain outcomes and decrease disability (Roth, Geisser, & Bates, 2008). Men and women differ in each of these variables and, therefore, providers must be aware of these differences in order to accurately assess patients in pain (Roth, Geisser, & Bates, 2008).

The sociocultural dimension of pain affects the experience of pain, particularly pain-related attitudes and beliefs, pain expression, and quality of life (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007). Examples include age, gender, demographics, social roles, socioeconomic status, resources, and social support systems (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007). In fact, the sociocultural variable can diminish or amplify the chronic pain experience (Derbyshire, 2008). Review of the literature reveals that research about the social context in which an individual experiences chronic pain is insignificant (Hopkins-Chadwick, 2006). Keefe, Rumble, Scipio, Giordano & Perri (2004) purport changing patterns in the social environment can improve psychological pain treatments but merits further investigation.

Pain Assessment

No laboratory or neurophysiologial tests quantify pain (APS, 2003). Diagnostic findings along with a physical examination complete the multidimensional assessment of an individuals' pain. Direct observation is imperative to the initial assessment of the patient in pain (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007). A complete assessment is initially conducted to determine the use of previous and current pain management strategies. Simultaneously, the assessment must include what strategies were effective and which strategies were not effective. Nurses, especially in acute care settings, primarily conduct pain assessments and pain assessment tools include each of these elements (McCaffrey and Pasero, 1999). Visual analog scales, numeric scales, and verbal descriptor scales are commonly used for assessing acute pain (Acute Pain Management Guideline Panel, 1992).

Pain assessment standards have been established in accordance with core principles recognized by pain organizations (APS, 2006; APS, 2008; Joint Commission on Accreditation of Health Care Organizations [JCAHCO], 2001, 2003). Most health care facilities have adopted specific pain assessment tools and standards of pain care which are required by accreditation bodies. Quantitative measures determine the amount of pain, qualitative measures differentiate etiologies, and distress measures appraise interference (Clark, 2007). Quantitative measures use patient self-reports about the characteristics of pain, whether pain is intermittent or constant, and triggers which cause the pain to worsen or improve. Distress measures provide how pain interferes with an individual's life (Clark, 2007). Chronic pain, however, is difficult to assess unless the measures capture each of these dimensions.

Pain assessment measures that include the multidimensional aspects of pain are readily accessible to health care providers. The more common multidimensional pain assessment tools are the Brief Pain Inventory (BPI) and the McGill Pain Questionnaire [MPQ] (Daut, Cleeland, & Flanery, 1983; Melzack, 1975; Melzack & Torgerson, 1971). The BPI is a widely used and validated numeric rating scale (NRS). The instrument measures severity of an individual's pain on overall function and has been validated on both cancer and chronic pain patients (Daut, Cleeland, & Flanery, 1983; Tan, Jensen, Thornby, & Shanti, 2004). The MPQ is a widely used numerical intensity scale.

The MPQ measurement consists of three classes of words in three categories: sensory, affective, and evaluative and capture a patients' pain experience through self-report. The tool also contains a measure of intensity and severity to determine the descriptors of the pain experience. The MPQ has been developed to measure variations in pain quality and intensity before and after an intervention. The review of the literature found nine of the nineteen studies utilized this instrument over the last twenty-five years including three studies in nursing. This tool has probably been the one that is most used in measuring qualitative and quantitative pain. The instrument is considered a multidimensional measure of the pain experience.

The test retest reliability of MPQ was found to be very strong among back pain patients at .85 (Love, Loeboeuf & Crisp, 1989). The MPQ was intended for clinical settings and has since been replicated over the last three decades in clinical, research, inpatient, hospice, and pain clinic settings. Recent interest has been given to the instrument in measuring pain variation over time and to measure effectiveness of alternative modalities for chronic pain treatment (McCaffrey & Freeman, 2003). The MPQ has been used to evaluate the pain experience in different cultures (Bates, Edwards, Anderson, 1993; Gaston-Johansson, Albert, Fagan, & Zimmerman, 1990; Johnson-Umezulike, 1997; Kvaren & Johansson, 2004; Todd, Samaroo, Hoffman, 1993).

Although pain assessment is a critical step in pain management, quantifying pain using pain tools often proves deficient (DeSouza & Frank, 2000). Researchers identified only 13 of 29 descriptors of pain in the MPQ that were sufficient to describe patients' pain. Relying on pain assessment tools that are widely used might be inappropriate for contemporary patient populations and an important implication to practice. These findings underscore the limiting nature of using one pain measurement tool and the difficulty researchers entail in quantifying pain.

Pain Management

The Institute of Medicine Report (1999) found that disparities occurred in pain management that included the failure to recognize and successfully treat pain in women and minorities. The goal of pain management is to treat pain and emotional distress (Tunks, Weir, & Crook, 2008). Prognosis depends on alleviating both pain and emotional distress. Pain medications are the first-line treatment for alleviating pain and include non-opiods, opiods, and adjuvant drugs (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007). Physicians begin with non-opiod treatments followed by opiods if pain continues to be unrelieved. The non-opiods include aspirin, acetaminophen, and nonsteroidal anti-inflammatory drugs (NSAIDs) which produce an analgesic effect. Individuals without a prescription can purchase these drugs. These drugs also are designed to inhibit the COX-1 enzyme. Pharmacologic advances recently introduced the COX-2 inhibitors such as celebrex and vioxx to the marketplace (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007).

Research study findings in chronic nonmalignant pain patients with mixed pain syndromes, neuropathic pain, phantom limb, and musculoskeletal pain compared pain intensity using morphine (Maier, Hildebrandt, Klinger, Henrich-Eberl, Lindena, 2002; Raja et al, 2002), oxycodone (Watson et al, 2004), codeine (Dhaliwal, et al, 1995; Peloso et al, 2000), and tramadol (Harati et al, 1998) found clinically significant findings that included a reduction in approximately 20-40% or 2 points in a 0-10 point pain scale. Watson et al (2004) reported that combining opiods and adjuvant medications for pain relief did not produce adverse effects, which did not preclude continuing opiod treatment long term.

The guidelines for opiod management include assessment and documentation of analgesia, dose, adverse effects, activity, and side effects (Jovey et al, 2003). These guidelines evade the risk of substance abuse of opiods (Von Korff & Deyo, 2004). However, Moulin, Clark, Speechley, Morley-Forster (2002) and Boulanger, Clark, Squire, Cui, Horbay (2007) found that 35% of primary care physicians surveyed reported that they would not recommend opiod therapy as a third choice for chronic nonmalignant pain patients.

Although accreditation standards on pain management and mandates have been in place for years, benchmarks for treatment outcomes, system problems, reimbursement challenges, and lack of consistent use of reliable assessment tools, impede consistent pain assessment and management for persons in pain worldwide. The Agency for Health Care Policy and Research (AHCPR) has developed evidence based pain management guidelines for acute, cancer, and pediatric pain that are easily accessible and free (AHCPR, 1992). Pain tools are population precise and many lack cultural specificity affecting pain assessment cross-culturally (Bird, 2003).

On one hand, plethoras of pain instruments are designed to measure one dimension of the pain experience, which is inadequate for a multidimensional experience. On the other hand, there is an equal number of assessment tools that are based on the multidimensional aspects of pain, but are lacking when it comes to the evidence needed to convince providers that one approach is better than another approach rendering the measures inadequate for use in treatment.

Bird (2003) conducted a systematic review of the literature between 1992 and 2002 and reviewed 63 articles of pain measurement tools that included verbal rating scale (VRS), visual analog scale (VAS), numeric rating scale (NRS), MPQ, BPI, and Wong-Baker (Wong et al, 2001) face scales and concluded no one tool commands a level of psychometric permanence. However, self-reports and psychological measures are valid on chronic pain patient populations (Dworkin et al, 2005; Turk & Melzack, 2001; Turner & Romano, 1984).

Medical Perspective on Pain

Descartes determined that “perception in neither an act of vision, nor of touch, but only an intuition of the mind” (Descartes, 1637). Descartes described the reflex arc and was pejorative in his belief that sensory signals are reflected onto the pineal gland in the brain and arced back to the motor nerves. In essence, he proposed a sensory- motor organization system responsible for bodily movement away from stimuli. Soon thereafter, Melzack and Wall (1965) developed the Gate Control Theory of Pain and provided the foundation for the conception of pain. Melzack and Wall (1996) outlined that the theory explained the following: 1). non-noxious stimuli can produce pain; 2). relationship between pain and injury; 3). variation between location of pain and tissue damage; 4); temporal nature and location of pain over time; 5). pain is a multifaceted experience; 6). pain is persistent long after healing and 7). pain treatments are lacking.

Melzack and Wall (1965) Gate Control Theory of Pain was pejorative of the specificity of pain pathways and argued in favor of a patterned explanation of pain spurring a substantive amount of mechanisms of pain research over 40 years (Table 1).

Table 1. History of Mechanisms of Pain Research

Pain Topic	Authors	Year
Gate Control Theory of pain Neuro matrix model of pain	Melzack & Wall Melzack & Casey	1965 1968
Inflammatory pain of experimental arthritis	Schaible & Schmidt	1985, 1988a,1988b
Neuropathic pain/spared root Peripheral neuropathic pain	Loeser & Ward Kim, Yoon, & Chung	1967 1997
Advancing phantom limb pain	Katz & Melzack Hunter, Katz & Davis	1990 2005
Association of stress to pain reactivity in homeostatic	Selye Korte, Koolhaas, Wingfield, & McEwen La Graize, Borzan, Rinker, Kopp, & Fuchs	1950 2005 2004
Increasing cortisol and contributing to maintaining chronic pain conditions	McEwen	2001
Cancer pain /injection of taxol	Apfel, Lipton, Arezzo, & Kessler	1991
Genetics including modulation	Price, Snyder, & Welch Price, et al	1996 2000; 2001
Deletion of the CGRP gene	Zhang, et al	2001
RNA interference	Luo et al	2005

The neuromatrix theory proposes that pain is a multidimensional experience produced by a neurosignature of a brain neural network (Melzack 2001, 2005). The concepts of the model include aspects of sensory discriminative, cognitive-evaluative, and motivational-affective components, which in turn are introduced into the body-self neuromatrix (Melzack & Casey, 1968). Outputs from this process determine pain perception, coping behaviors, and physiological stress-regulation (Melzack, 2001). According to Melzack, stress, cognitive, and sensory events modulate both the neurosignature of the body self-neuromatrix. This process underpins chronic pain conditions and, together with homeostasis and allostatsis, provides an explanatory framework for the biopsychosocial model (Gatchel, Peng, Fuchs, Peters, & Turk, 2007). This model provides an explanatory framework for phantom limb pain in which pain sensations long outlive pain stimuli in a biological sense (Katz & Melzack, 1990; Hunter, Katz,

& Davis, 2005). The neuromatrix model produces output patterns that require no sensory input in response to stress or injury.

The neuroscience of pain focuses on the pain processing systems simulating inflammatory, neuropathic, and cancer pain (Gatchel, Peng, Fuchs, Peters, & Turk, 2007). Neuropathic pain involves damage to the peripheral nerves and central system regions producing burning, stabbing, and electric shock pain (Gatchel, Peng, Fuchs, Peters, & Turk, 2007). Schaible & Schmidt (1985, 1988a, 1988b) simulated inflammatory arthritis pain in the laboratory using injections of kaolin and carrageenan. Loeser & Ward (1967) specifically researched the spared root paradigm while Kim, Yoon, Chung (1997) focused on peripheral neuropathic pain. Apfel, Lipton, Arezzo, & Kessler (1991) research focused on the chemotherapy induced neuropathy model using the injection of taxol to simulate cancer. Peripheral fiber response can be evaluated during acute and chronic phases of pain thereby identifying treatments to improve quality of life for patients. Research in this area led to the discovery of analgesics resulting in improvements in pain management. Today, research continues in post herpetic neuropathy involving the varicella-zoster virus and the simulated diabetic neuropathy pain model using, for example, insulin resistant mice (Gatchel, Peng, Fuchs, Peters, & Turk, 2007).

Pain is viewed by some researchers as a threat to homeostasis causing long-term negative effects to the body (Selye, 1950). Since pain creates a threat to the body, a motivating functioning is to return the body to a state of homeostasis (LaGraize, Borzan, Rinker, Kopp, & Fuchs, 2004). Evidence supports the long-term effects of stress on the body systems. Some of these long-term changes are the increase in cortisol which ignites the pituitary to secrete adrenocorticotropic hormone signaling the adrenal gland to secrete cortisol (Gatchel, Peng, Fuchs, Peters, & Turk, 2007; McEwen, 2001). Prolonged periods of stress are linked to pathological states including chronic pain (Gatchel, Peng, Fuchs, Peters, & Turk, 2007; Korte, Koolhaas, Wingfield, & McEwen, 2005). According to Melzack (2005), this consequence of prolonged stress modulates the neuromatrix signature incurring explanatory implications of chronic pain conditions.

The mapping of the human genome is rapidly advancing the link between cellular expressions to biological functioning (Jansy & Kennedy, 2001). Genetic modulation (Price Snyder, Welch, 1996; Price et al, 2000; 2001) is evidenced to play an important role in pain transmission. The process of pain transmission requires certain molecules for protein synthesis that include neurotransmitters and enzymes functioning at each individual step. Some examples of neurotransmitters and enzymes include histamine, serotonin, norepinephrine, protoglanding E, and capsaicin (Gatchel, Peng, Fuchs, Peters, & Turk, 2007). Research targeting how gene expression modulates pain offers the potential for gene specific pain interventions (Luo et al, 2005; Zhang et al, 2001).

The clinical goal when dealing with pain is pain relief, averting comorbidities, and managing coping and adjustment (Tunks, Weir, & Crook, 2008). Chronic pain is managed using pharmacologic and psychological treatment. Evidence purports the addition of anti-depressants and anticonvulsants, which are useful in neuropathies, fibromyalgia, post herpetic neuralgia, and other painful conditions (Maizels & McCarberg, 2005). Medical pain treatments commonly include medications, dorsal columns stimulator, braces, electrical stimulation therapy, physical therapy, surgery, nerve blocks, steroid injections, and patient controlled analgesic pumps (Clark, 2007). In actuality, traditional medical approaches such as surgery are no more effective than the combinations of psychological interventions and alternate therapies such as acupuncture, massage, and chiropractic care and without the increase risks of surgery (Gatchel, 2006). In fact, the correlation between physical findings such as medical resonance imaging or x-ray results and patient self-reports of pain is only at 40-60% (Clark, 2007). This low correlation between the physical proof of pain and psychological and emotional reactions called on researchers to expand the biomedical model to a biopsychosocial model.

Pain is the most predictive of complementary and alternative medicine use (National Center Complementary and Alternative Medicine [NCCAM], 2008). Complementary and alternative medical approaches are heralded as modern day approaches to disease and currently 36 million adults are using complementary and alternative medical approaches. Although alternative treatment approaches for chronic pain are reportedly on the rise, the increases in numbers do not necessarily indicate effective pain management. However, alternative approaches are routinely offered in pain treatment clinics today as these treatment options are routinely sought after by those in pain. Self-management is key to adjustment in chronic pain and augments biopsychosocial treatments (Turk, Swanson, & Tunks, 2008).

One model was developed that merged the biomedical and cultural models together to explain pain beliefs and behaviors in different ethnic groups. This biocultural model of pain perception was developed by Bates (1987) integrating the gate control theory (Melzack & Wall, 1965) with social learning (Bandura, 1977) and social comparison theory (Festinger, 1954). There is one underlying problem with the Bates Biocultural Model. It does not take into consideration the differences in neurobiology of individual members nor does it take into account individuals' pain perception and response patterns learned from observing others in an organized institutional culture in which one is embedded. The culture where an individual member trains, lives, and works along with one's ethnic origin both influence the pain experience (Bates, 1987; Bates, Edwards, & Anderson, 1993).

Psychological Perspective on Pain

A major turning point in chronic pain research is the seminal work of Fordyce, Fowler, Lehman, DeLateur (1968). They are credited with the development and testing of behavioral and cognitive treatments to chronic pain care. As pain research exploded, and newer treatment approaches to pain were adopted, the biomedical approach to pain lacked the plasticity to explain all of the factors in play to adequately address the multidimensional pain experience (Table 2).

Table 2. Psychological Research in Relationship to Pain

Pain Topic	Authors	Year
Sensory and affective associations such as mood	Fernandez Turk & Monarch	2002 2002
Anxiety	DeGroot, Boeke, van den Berge, Duivenvoorden, Bonke, & Passchier	1997
Anxiety sensitivity	Asmundson, Wright, & Hadjustavropoulos	2000
Depression	Gatchel	2005
Anger	Schwartz, Slater, Birchler, & Atkinson Okifugi, Turk, Curran	1991 1999
Perception of danger	Cipher & Fernandez	1997
Psychological stress	Melzack	2005
Psychological distress	Derogatis	1977

Pain is not only a physical sensation, but includes an emotional component (Merskey, 1986). There exists an inordinate amount of evidence supporting the interactive roles of sensory and affective components of pain (Fernandez, 2002; Turk & Monarch, 2002). An important conclusion about the emotional responses to pain is that most responses are negative and include depression, anxiety, anger, anxiety sensitivity, stress, and distress (Asmundson, Wright, & Hadjustavropoulos, 2000; DeGroot, Boeke, van den Berge, Duivenvoorden, Bonke, & Passchier, 1997; Fernandez, 2002; Gatchel, 2005; Okifugi, Turk, Curran, 1999; Schwartz, Slater, Birchler, & Atkinson, 1991; Turk & Monarch, 2002).

Research findings demonstrate the negative consequences of these emotional states to the pain experience. In fact, the consequences of pain are associated with negative mood states, an important component to sustaining the chronic pain experience, thereby, exacerbating the suffering (Gatchel, Peng, Fuchs, Peters, & Turk, 2007). Findings uncovered a myriad of factors influencing pain and in turn, guided the movement away from viewing chronic pain as a homogeneous state (Wahlgren et al, 1997).

Another impetus for the expansion of the biomedical model was that pain psychologists, replete with evidence, offered equal if not better pain outcomes, and after decades of chronic pain research, a myriad of biopsychosocial approaches are in use for chronic pain with much success. Based on substantial evidence, chronic pain patients who partake in a multidisciplinary pain clinic significantly improve both their physical and psychological functioning (Gatchel & Okifuji, 2006; Jensen, Turner, Romano, 2001; Jensen, Turner, & Romano, 1994). Evidence suggests that medicine has overlooked the impact of the environmental and psychosocial influences on chronic pain (Bonica, 1990; Turner, Holtzman, & Mancl, 2007). In actuality, failing to address psychosocial barriers to pain care increase the likelihood of chronicity (Gatchel & Gardea, 1999; Gatchel, Polatin, & Mayer, 1995; Linton, 1995; Sullivan, Turner, & Romano, 1991).

Keefe, Rumble, Scipio, Giordano, and Perri (2004) concluded that pain researchers need to develop and use comprehensive pain models and pay attention to the social aspects of pain. Turk and Rudy (1992) reviewed seven chronic pain outcome reviews and concluded that chronic pain outcome research is overly optimistic because of neglected factors in the conduct of the research. Referrals, failure to enter treatment, and attrition fail to substantiate accurate conclusions about treatment successes and the researchers identified that benchmarks needed to be established and reported for comparisons to be made (Jensen, Turner, & Romano, 1994).

Nursing Perspective on Pain

Nursing has taken a more holistic approach to chronic pain as compared to medicine and psychology. Coinciding with medicine and psychology renewed interest in pain research, Saunders pioneered the hospice movement in 1967 in London, which formalized the use of opiates for cancer pain relief. McCaffrey (2000, p. 2) personalized patients' pain when she defined pain as “whatever the experiencing person says it is, existing wherever he or she says it does” and emphasizes the importance of the subjectivity of pain through a patient’s self-report, the “gold standard” of pain intensity (McCaffrey, 2000). Heralding the role of patients in the pain trajectory and the hospice movement, standards were established for using patient self-reports in the assessment of pain and opioid use for pain management in cancer (Acute Pain Management Guideline Panel, 1992; American Pain Society, 1995). McCaffrey & Ferrell (1994) link under treated pain to a decreased quality of life

Breen (2002) conducted a conceptual analysis of chronic pain using an evolutionary approach of chronic pain within a social context. Studies from 1961 through 1999 were collected and 142 references were found in the nursing literature. An important outcome of the analysis was that chronic pain is described as a syndrome simply because of the multiple nursing diagnoses needed, and more than one nursing intervention was identified for the care of chronic pain patients. Suffering was the most important aspect of chronic pain and earlier identification in assessing pain is imperative, to avert long-term suffering. Breen identified, however, that in some cultures chronic pain is a normal phenomenon by some individuals and not viewed as suffering. Breen concluded that nurses evaluate patients holistically, and whatever term is used, the patients’ perspective is the most poignant description of chronic pain and suffering and to what degree is defined by chronic pain patients themselves. Nursing views pain as unquantifiable and pain management requires a holistic approach (Pasero & McCaffrey, 2004).

Nurse researchers have proposed a hybrid model integrating the pain affect model (Price, 2000), Johnson’s Self-Regulatory Theory, and Lazarus’ stress and coping model (Smith & Lazarus, 1990). The hybrid model fused pain intensity, psychological distress, and pain related distress to guide practice (Wells & Ridner, 2008). The goal of the authors was to adopt nomenclature familiar to nurses to reclassify the seemingly contradictory results in pain research findings to be easily compared, acting as an algorithm for practice (Wells & Ridner, 2008). This model was considered as a theoretical perspective for this study but this model does not include a cultural component in the model framework or focus on contributory influences in pain management beliefs and practices. Therefore, the hybrid model was not used as a theoretical framework.

Chronic Pain

Chronic pain changes lives and remains elusive to medical understanding. In fact, chronic pain serves no clear biological function (DelVecchio-Good, 1994; Sterns, 1998). In 1994, The IASP defined chronic pain as a distinct condition. Chronic non-malignant pain research includes an inordinate body of evidence (Table 3).

Table 3. Overview of Chronic Pain Research

Pain topic	Authors	Year
Socioeconomic impact	Saastamoinen, Leino-Arjas, Laaksonen, & Lahelma	2005
Epidemiological implications	Elliot, Smith, Penny, Smith, & Chambers Tunks, Weir, & Crook	1999 2008
Relationship of pain to anger	Fernandez & Turk	1995
Relationship to anxiety	Asmundsen	1999
Relationship to depression	Romano & Turner Gatchel	1985 2005
Relationship to emotional distress	Fernandez & Turk Turk & Monarch	1992 2002
Functional disturbances and disability	Romano, et al	1995
Coping	Jensen, Turner, & Romano	2001
Self-efficacy	Keefe, Rumble, Scipio, Giordano, & Perri	2004
Adherence to treatments	DiMatteo	2004
Workplace appraisals of pain	Gatchel & Epker	1999

Chronic pain research findings substantiate both the epidemiological and socioeconomic implications to society worldwide such as loss of work productivity and disability (Elliot Smith, Penny, Smith, & Chambers, 1999; Saastamoinen, Leino-Arjas, Laaksonen, & Lahelma, 2005; Turks, Weir, & Crook, 2008). Investigators identified the relationship of chronic pain to anger, anxiety, depression, and functional disturbances impacting hospitalizations, tolerance of pain, and cognitive appraisals of pain, predisposing and sustaining acute pain episodes, self-efficacy, and adherence to pain treatments (DiMatteo, 2004; Gatchel & Epker, 1999; Keefe, Rumble, Scipio, Giordano, & Perri, 2004; Romano & Turner, 1985).

Pain beliefs and appraisals are predictors of adjustment to chronic pain (Turner, Jensen, and Romano, 2000). Simultaneous interventions that address maladaptive beliefs are critical to improve adherence and pain outcomes (DiMatteo, 2004; Gatchel, 2005). Self-efficacy improves as individuals improve the control they have over their life (Jensen & Karoly, 1991). Participating in cognitive behavioral and self-management interventions, chronic pain patients improve functioning and psychological adjustment (Keefe, Rumble, Scipio, Giordano, & Perri, 2004). Methodological limitations of these studies include sampling issues, social responsiveness, and inconsistent documentation about inclusion and exclusion criteria. Therefore, comparisons are difficult and accurate conclusions are few (Tait & Chibnall, 2005).

An inordinate amount of chronic pain research, systematic reviews, and a substantive knowledge about the etiology and treatment efficacies exist, but inconsistent outcome benchmarks make synthesis of findings difficult. Since sample selections are inconsistent and outcome measures are varied, chronic pain researchers have recently called for a more systematic approach to chronic pain research.

A consensus meeting was assembled by the Initiative on Methods, Measurement, and Pain Assessment in Clinical Trials (IMMPACT), inclusive of prominent pain researchers, to establish core pain outcome domains and clinical importance of changes in outcomes statement for use in clinical trials. The underlying idea espoused by the pain researchers is that the patient decides whether the pain outcome he or she experiences is consequential (Dworkin et al, 2008).

Qualitative Research

A recent surge of phenomenological research has been dedicated to chronic pain and includes chronic pain in women with fibromyalgia (Raheim & Haland, 2006), chronic pain (Thomas, 2000), chronic pelvic pain (Butt & Chesla, 2007), and chronic musculoskeletal pain (Gullacksen & Lidbeck, 2004). Common themes about suffering and emotional distress were evident while paradoxical evidence to describe the pain experience is equally being reported in the same samples of women. Researchers define the importance of the findings to nursing to improve their cultural understanding of body language, cultural interpretation, and meanings of pain in marginalized groups acculturating into societies.

Similar conceptualizations about pain have been reported in women and in particular older women, in the most industrialized nations worldwide including the United Kingdom, the United States, and among those in less industrialized cultures including tribes such as the Navajo Nation in which dissimilar socioeconomic conditions exist (Hancock, personal communication, 2008). Older Navajo women experiencing pain describe a decrease of function in their roles as caregivers, weavers, participating in ceremonies, and seasonal pinion picking, because of pain.

Hispanic patients in pain learn about pain beliefs and behaviors from their families (Juarez, Ferrell, & Borneman, 1998; Sherwood, McNeill, Palos, & Starck, 2003). Both studies concluded that cultural beliefs about pain and pain behaviors are imperative in assessment of pain. Pain beliefs and behaviors are learned from families through observing the responses from family members when one is in pain. Health care providers need to understand pain in a cultural context before successful pain management can be achieved.

Brown & McCormack (2006) conducted an ethnographic study to examine pain management practices with older people admitted to a colon rectal unit of an acute facility in Belfast, UK. Underpinning the aim, the researchers were seeking to identify factors that could be perceived as barriers or contributors to successful pain management. Researchers' identified the colon rectal unit as the culture. Three themes emerged: pain assessment and practice, knowledge and strategies to deal with unrelieved pain, and organization of care. Overall, complex and competing factors are present that impact pain management practices highlighting that nurses are unaware of how significant spending time with elderly patients can impact adequate pain care.

Compounding miscommunication are limiting factors in older patients such as hard of hearing and reluctance by patients to disclose pain needs leading to believing that nurses can alleviate pain in patients. Limiting factors included lack of education about analgesics and uses in patients and in families underscoring the importance of education before and after surgery. Organizational limitations such as lack of pain relief alternatives and inadequate documentation by nurses in assessing and reevaluating pain contributed to patient's inadequate pain control.

Similar findings were found in the chronic pain of Norwegian women's lived experience of fibromyalgia and a narrative account of women and partners experiencing chronic pelvic pain from endometriosis (Strzempko-Butt & Chesla, 2007). Participants used words to depict time as a rhythm of the day and "powerlessness" and "treacherous body" described the experience of chronic pain (Raheim & Haland, 2006, pp. 747 & 750). Living with chronic pain was an emotionally and physically debilitating experience with periods of "doubt and unpredictability" (Strzempko-Butt & Chesla, 2007, p. 575). Women with chronic pain use paradoxical metaphors to communicate the chronic pain experience. The words "together but alone" conveys to others the cyclical nature of chronic pain. Each of these nurse researchers concluded that the biomedical model in chronic pelvic pain (Strzempko-Butt & Chesla, 2007), and in chronic pain limits the understanding of the world of chronic pain in women. Relational, political, and ideological contexts are important to women during the cycle of chronic pain (Thomas, 2000).

All articles described pain using physical intensity, emotional, and psychological aspects that result in decreasing world experiences. Despite variations in pain, pain is a human phenomenon experienced by all human beings and varies depending on individual cultural, social, psychological, and emotional components influencing pain-life experience. Review of the qualitative literature on pain resulted in both similarities and differences in pain patients. Similarities included that pain is defined as an individual experience with multidimensional aspects that transcend the patient to a present reality that in the experience of pain is limiting and narrowing. Pain in patients can be a reflective or engaging process defining duration in terms of time and life points in pain as references.

Pain outcome measures have been developed with negligible input from patients and no studies were found that established benchmarks using patients' input. Turk et al. (2006) cited outcome measures historically have been developed with no input from patients. Few research studies address the social and cultural context of chronic pain, and none to date addresses the factors that influence the chronic pain experience of enlisted women. Research is necessary in order to fully integrate understanding about what outcomes really matter in the lives of these women into their care. We cannot rely on outcomes that were developed with no input from enlisted women. Secondly, enlisted women and women in general have been overlooked in chronic pain research and warrant investigation, as data from male samples is outmoded (NIH Pain Consortium, 1998).

Chronic pain treatment evidence is based largely on research studies whose participants were exclusively men. Although chronic pain research is replete, women have been largely overlooked in research studies at large, and enlisted women's perspective in research has been plagued with under representativeness. Some more recent qualitative studies have included women, but to date no qualitative studies about the chronic pain experience include enlisted women. Since research about civilian women depicts paradoxical affective responses, one would surmise enlisted women would disclose similar paradoxical states; but until disclosed by these women, this conclusion is far from certain.

Gender Differences in Pain

Gender differences exist in the perception and experience of pain (Fillingham, 2000 International Association for the Study of Pain [IASP], 2008). Women are more likely than men to develop chronic pain syndromes and are especially so, when exposed to trauma (Unruh, 1996). Early research in the 1990s found conflicting evidence in differences between men and women, but in those that did, found women feel pain more intensely, more frequently, and of longer duration than men (Hoffmann & Tarzian, 2001). Approximately one-half of the research found no differences between men and women at least in the experimental settings (Hoffman & Tarzian, 2001).

Biological differences between men and women are found in opioid receptors, mechanisms of nerve growth, and sympathetic nervous system function (Berkley, 1997). One interesting fact seems to link differences to pain sensitivity based on female hormone levels, particularly among women with temporomandibular and joint disorder (Glaros, Baharloo, & Glass, 1998). Many theories are being discussed for the differences. Decreases in hormones are more likely to cause an increase in pain and inflammation because the hormones act as a modulator in the release of nitric oxide, which causes vasodilatation (Dao, Knight, & Ton-That, 1998). Estrogen may interact with other mediators heightening sensation (Dao, Knight, & Ton-That, 1998).

Differences have been found in one specific gene in female mice that include stress-induced analgesia that is not found in males (McEwen, Alves, Bulloch, & Weiland, 1998). Researchers found differences between physiological pain differences and these differences were mediated by the differences in cognitive and emotional responses (Hoffmann & Tarzian, 2001). The underlying challenge with the physiological evidence is that, although differences do exist, men and women respond in similar ways to pain and conclusions cannot be drawn based on physiological inferences alone. Unruh (1996) concludes that women have biological differences that contribute to more pain and a more difficult time recovering from pain, but does not dismiss the influences of cultural and psychological factors in pain perception and behavior.

Not surprising, research that describes conditions under which pain beliefs and behaviors play the strongest role in adjustment are overlooked, especially in the chronic pain experience (Jensen, Turner, Romano, & Lawler, 1994). Women, on one hand, are socialized into a communal way of relating to the world and freely express emotions (Davidson & Freudenburg, 1996). Men, on the other hand, are less likely to communicate their emotions and both styles contribute to differences in communicating to each other and their pain to providers (Derbyshire, 2008; Hoffmann & Tarzian, 2001). An example of these behaviors indicates women can describe their pain and are more willing to do so than men. Women are more likely to describe their pain using contextual information and metaphors while men use descriptors (Unruh, Ritchie, & Merskey, 1999).

The evidence is conclusive that pain management differences exist between males and females. McCaffrey and Ferrell (1992) found that, in a sample of 300 nurses surveyed, the nurses perceived pain differences between men and women in pain expressions, reports of pain, sensitivity to pain, and exaggerated pain. The nurses' perception was that women were more tolerant, and more likely to express their pain than men were. More troubling was the fact that nurses planned more analgesic administration time for men than for women without any evidence supporting this contention. Nurses have expectations about men and women's ability to cope with pain that might not be accurate (Chibnall & Tait, 1995; McCaffrey & Ferrell, 1992).

McCaffrey and Ferrell (1992) infer that providers see the appearance of coping with pain as tolerating pain. Another explanation offered by the authors is that men are more likely to be referred for treatment than women because of their perception by nurses of men's provider status. These conclusions are not founded in evidence since women are juggling many roles including the head of the household and childrearing responsibilities and need aggressive treatment early on for pain. Women are somehow communicating that their pain is tolerable or health care providers are uncaring and detached when women enter the health care system (Hoffman & Tarzian, 2001).

Pain reports, reported rest, and distress measures were found to decrease in both males and females following interdisciplinary pain treatment but only women reported a return to pre-treatment pain levels post-treatment (Keogh, McCracken, & Eccleston, 2005). This evidence suggests that men and women do differ in their response to treatments. One suggestion accounting for the variations was sociocultural distinctions among the participants (Keogh, McCracken, & Eccleston, 2005). Human beings continually sense and form judgments about their physical environments which, while remaining static, create meanings about the experience as a result of brain activity, perception, past experiences and gender, to name a few.

Prior evidence suggested gender may play a role in psychological pain interventions (Hanson, et al, 1993; Jensen, Turner, & Romano, 2001) but inconsistencies in the study designs and methodological issues prevent conclusions from being drawn. There is evidence to suggest there are biological differences between the sexes but there are other contributing factors that mediate pain perceptions and responses among the sexes. Women are more apt to perceive pain and respond to pain using contextual descriptions and therefore are viewing the pain experience as altering behaviors and relationships in some ways and willing to report these changes in the context of their social and cultural reality (Kleinman, 1988).

Gender difference in the response to pain treatments is questionable with the exception of the use of opiods (Fillingim, 2003). Women appear to benefit most from the use of opiods. Fillingim's (2003) review of the literature suggests that psychosocial mediators of pain such as negative affect is strongly associated with pain in men, while cognitions such as self-efficacy is more strongly associated with pain in women. Gender differences in pain responses will no doubt be used to tailor pain treatments algorithms that benefit both men and women, and thereby improve pain management in both (Fillingim, 2003).

Chronic Pain: A Chronic Illness

Chronic conditions are all costly and difficult to treat. Chronic pain treatment costs far exceed the annual costs related to heart disease, respiratory disease, and hypertension (McCarberg in Sipkoff, 2003). Chronic pain patients are five times more likely to utilize health care services and approximately 58% of patients experience anxiety or depression, co-morbidities that require health care intervention (McCarberg, in Sipkoff, 2003). Chronic pain treatments that employ targeted resources early on remain the best approach to pain relief, and better when multidimensional approaches include a cultural and social context component to pain care.

Three important characteristics that chronic pain exhibits are similar to the characteristics of chronic illness. First, there is an increase risk of chronic pain and illness among women, and in particular aging women (Giddings, Roy, & Predeger, 2007; Kerssens, Verhaak, Bartelds, Sorbi, & Bensing, 2002; Thorne & Paterson, 1998). Secondly, there exists a similar illness trajectory in all chronic conditions. Chronic pain and chronic illness have periods of relapse and remission and patients who suffer from these conditions are continually influenced by various extrinsic factors that influence either state (Paterson, Russell, & Thorne, 2001). Finally, chronic illnesses and chronic pain conditions are influenced by biopsychosocial and socicultural factors, which contribute to chronicity (Gatchel, 2006).

Chronic illness is common throughout the world in populations of women because women across the globe are living longer. In actuality, women are living an average six years longer than their male counterparts and 25% to 50% report pain (American Geriatric Society

[AGS], 2002; National Institutes of Health Gender & Pain, 1998). The most common chronic condition is osteoarthritis which affects 16 to 23 million Americans older than 60 and is the most costly and debilitating condition in the United States (Center for Disease Control and Prevention [CDC], 2007; [NIA] 2008). Arthritis and rheumatic conditions cost $127.8 billion, which include medical care and lost earnings (CDC, 2007). Chronic illness research in women, like chronic pain research, is of recent interest to researchers.

Chronic illness research findings can be useful in chronic pain research studies involving social and cultural contexts (Thomas, 2000). The context of a woman's life is one of the most influential factors during transitional phase of aging in life, and living with one or more chronic conditions affects activities of daily living and quality of life (Kralik, 2002; Rowland & Yancik, 2006). Since illness and pain can both be chronic in nature, findings about chronic illness were compared and contrasted to chronic pain findings.

A qualitative meta-study of chronic illness was undertaken in which studies were reviewed to describe the chronic illness experiences of patients over a 15-year period (Thorne & Paterson, 1998). Themes of burden and loss were identified in the early 1980's' and shifted to themes of transformation and illumination by the late 1990's. The early 1980's focused on knowledge development of chronic illness and the biomedical model provided the framework with which the findings were compared. The 1990's qualitative literature included themes such as finding meaning, transformation, and discovery (Moch, 1990; Schaefer, 1995) moving to individual competence (Kaprowy, 1991), skilled self-care, (Roberson, 1992), and professional-client partnership (Callaghan & Williams, 1994) which were different from the earlier findings about chronic illnesses.

Arguably, Thorne & Paterson (1998) conducted a meta-analysis of chronic illness research findings in which the authors conceived a broader perspective about chronic illness, which illuminated differing conceptual themes, and referred to these differences as "shifting perspectives". Thorne & Paterson further summarized the tapestry of findings by indicating that the social and cultural perspective was an integral piece of the whole of living with a chronic illness. A contextual perspective about chronic illness portrays a point in time on the trajectory of chronic illness and needs to be included with the findings. Cultural context is rarely mentioned, so comparisons to future studies will prove difficult.

This parallels Bonica's (1979) synthesis about pain research and Breen's (2002) conceptual analysis about chronic pain, which was described as an arduous process of synthesizing findings. Thomas (2000) identified that, in future research, social and cultural contexts need to be acknowledged for comparative purposes. Findings in both the chronic pain and chronic illness research included psychosocial factors and their relationships to treatment outcomes. Abuse, employment, poor coping, depression, using analgesics, psychological interventions, and prevention of disability need to be treated concurrently in order to positively affect treatment outcomes in chronic pain and illness (Gatchel, 2005; Tunks, Weir, & Crook, 2008).

Socioeconomic literature indicated those at risk for both chronic pain and chronic illness were twice as likely to be older women who were of lower economic, occupational, and educational status (Saastamoinen, Leino-Arjas, Laaksonen, & Lahelma, 2005). One theme was ongoing vulnerabilities, which described aging womens' experiences when they are faced with the daily challenges associated with a chronic illness. Although pain is different, generalizations from ongoing vulnerabilities and shifting perspectives could be applied to the chronic pain experience without difficulty (Giddings, Roy, & Predeger, 2007; Thomas, 2000; Thorne & Paterson, 1998).

Older women who are at risk for chronic pain are more likely to be diagnosed with chronic illness and conversely those who are at risk for chronic illness are more likely to be diagnosed with chronic pain. Demyttenaere et al. (2007) described cross-national comparisons of mental conditions in 42,000 individuals with chronic neck or back pain in Europe, Asia, Middle East, Africa, South Pacific, and the Americas. Findings indicate that those individuals with chronic neck and back pain are at increased risk for mental conditions and that the risk is not associated with either ethnic culture or health care delivery system.

Munce and Stewart (2007) demonstrated in 131,535 persons in chronic pain that the prevalence of depression in women was twice (9.1%) that of men (5%). The prevalence of depression was 11.3% in individuals with chronic pain conditions as opposed to 5.3% without and women reported significant disability related to both conditions (Munce and Stewart, 2007). Gansky and Plesh (2007) found that in 1334 women (ages 21-26) the association between pain and depression was higher in African American than in Caucasian women experiencing fibromyalgia. African American women reported more pain that is widespread and Caucasian women reported more tender point pain. Findings indicated that both groups with pronounced pain reported a decreased socio economic status (SES), reported poorer overall health, and increased premenstrual symptomolgy.

Pain is the most culturally significant variable associated with a chronic medical condition (Linn, Hunter, & Linn, 1980). In examining the perceptions about health, function, and arthritis among Caucasians, Cubans, and Blacks, researchers found greater pain and disability among Blacks. The health status of older Blacks experiencing pain is associated with their perception of function and performance of important life tasks (Baker & Whitfield, n.d.). However, Johnson-Umezulike (1999) compared chronic pain in older Caucasian and Black patients and found Blacks reported less (47%) pain compared to Caucasians (53%). Older Blacks are reporting less pain, yet consider pain serious enough to relinquish activities of daily living.

This paradox in communicating pain with regard to a decrease in function suggests that pain is considered more or less serious based on the ability to perform activities in daily life and important to older Blacks experiencing chronic pain. Pain tolerance is not necessarily pain control in these older Blacks; performance of essential activities of daily living is a measure of their chronic pain management. Hadjistavropolous and Craig (2002) discovered similar findings in that behaviors indicating pain include limiting daily activities, resting, and taking medications in some individuals and in others communicating “I hurt”.

I would argue that research findings differ because of the worldviews of the researchers, the scientific evidence available, and the research genres in fashion, which influence the research focus of the author and their conclusions. The findings represent different shades of the same color which, are all important aspects of describing one aspect of the same phenomena; pain.

Culture

Culture is defined as a tacit set of rules and standards determined by a society as a means to shape acceptable behaviors and deter deviant behavior (Helman, 2007). Culture is a process of socialization in which individuals adapt to an organized way of life, which creates a group identity. Cultural norms are learned and transferred from generation to generation and become unconscious or routine. Members of society outside of the group see the routine as a way to organize behavior and thinking in order to maintain control or order within the group. Occasionally, some routines no longer serve the greater good of the group and in order to survive change is perfunctory and becomes the order of the day. Cultures are dynamic and ever changing depending on resources, technology, adaptation to the environment, and outside influences. Culture is defined as the norms, values, and assumptions that guide behavior (Wilson, 2008). Culture therefore is a screening mechanism that rules out options and therefore, has an impact on health.

Culture plays a defining role in the pain experience and involves different aspects of sociocultural, affective, cognitive, and behavioral dimensions (Bates & Rankin-Hill, 1994; de Wit, van Dam, Litjens, Abu-Saad, 2001; Skevington, 1998; & Twycross, 1994; Zborowski, 1952). Culture influences health behaviors, illness, and responses to illness. Excellent examples of cultural influences on health are exercise patterns, attitudes to illness, diet, rituals, coping strategies, social supports, and interactions with others (Helman, 2007). One study by White and Thompson (2003) found that the age adjusted point prevalence of fibromyalgia in a group of male and female Amish adults was greater than a group of non-Amish rural and urban controls in Ontario, Canada. There are unknown factors within the Amish culture that results in adults living in that culture to experience an increase prevalence of fibromyalgia that the population in general. Some aspects of culture are seen and others are hidden from view and the unseen influences can cause discernible actions (McFarland, 2005).

Pain is characterized as biphasic; the first phase perceptual and the second one is reactive (Bonica, 1999; Hama, 2001). Cultural orientation is integral in learning how to perceive and express pain. An essential method for learning about pain is from observing others. Members learn the meaning of pain from observing other members behavior and gauge the amount of pain behaviors and what kind of behavior illicit what affects (Harper, 2006). Although the stimulus of pain that alerts an individual something is wrong is identical for humans, perceptions about pain vary between societies (Free, 2001). One central mediator in the appraisal process of pain is culture.

Culture is recognized as a major determinant in how individuals perceive and react to pain despite similarities in physical, emotional, and pain characteristics (Green, Ndao-Brumblay, Nagant, Baker & Rothman, 2004). Pain behavior, which is voluntary, is influenced by psychological, cultural, and social factors (Helman, 2007). Differences in pain diagnosis and treatment are influenced by these factors, which affect the response to pain and treatment (Bates, 1987; Stearn, 1998).

Pain is a personal experience and contextually situated (Bates, 1987; Harper, 2006; Helman, 2007; Kleinman, 1988). Some perceptions and reactions combine to form individual pain perception and involve culture, learning experiences, pain beliefs, socialization and past pain experiences (Bates, Edwards, Anderson, 1993; Stearns, 1998). Culture and pain can be reduced into several pain categories: a culture of pain and a culture in pain (International Association for the Study of Pain [IASP], 2002). A culture of pain is defined as that way in which the general public configures the meaning and management of pain. A culture in pain is defined as the means in which a particular culture configures one's perception, expression, coping, and meanings attributed to pain (IASP, 2002). Pain behavior becomes culture-specific.

Pain is understood as a condition that communicates to others a series of beliefs, behaviors, and functional disabilities all of which interplay and create personal meaning of pain (Kleinman, 1988). Language is a universal method members use to convey meaning about experiences within a society. Communicating pain however, can prove language derisive. Language to describe pain varies, as does an individuals' understanding of medical terms and bodily functions. All influences one's ability to describe their pain experience (Davidhizar & Giger, 2004). Pain behaviors can be verbal and non-verbal and communicate pain to others (Engle, 1977; Fordyce, 1976). An example of verbal behaviors is, "I hurt". Non-verbal pain behaviors such as groaning and grimacing can be seen in individuals with dementia and the cognitively impaired (McCaffrey & Ferrell, 1992).

Engel (1977) describes the reaction to pain as two-fold: an involuntary and voluntary reaction. Interestingly, the reaction to the painful stimuli can produce pain behaviors and conversely, in some individuals the same painful stimuli will result in avoidance of the display of pain behaviors. Engel clarifies the differences between these two states as private and public pain. Private pain is communicated to others by verbal and non-verbal behaviors. Pain that results from injuries allows others to "see" the source of pain. Pain arising from inside an individual is less obvious and, unless communicated, remains elusive to others. In this case, the pain becomes isolating and remains a private affair. Pain behavior such as this is considered stoic, results from, Anglo-Saxon response to hardship (Helman, 2007). Therefore, the absence of pain behaviors does not necessarily indicate the absence of pain.

Public pain is defined as the interaction of an individual to others during a pain experience (Engel, 1977). The way that the culture judges acceptable pain behaviors is part of larger societal values and can be displayed as either extravagant or underplayed. Acceptable standards of pain behavior usually coincide with the amount of attention that is received (Zola, 1966). Pain behavior and societal values become intertwined over time (Engel, 1977). Pain assessment is a social snapshot in which values, conventions, and attitudes of a society are appraised and inferences are made with regard to treatment (Chibnall & Tait, 2005).

Pain and suffering vary from culture to culture and include considerable differences in meanings even within the same culture. Reasons for these differences remain unclear (IASP, 2002; WHOQOL Group, 1998a). Methodological limitations of earlier period studies led to the increased attention by funding agencies to explore the sociocultural influences that influenced medical conditions. One medical condition in particular that was under consideration was pain and the result was an impetus to turn to qualitative research to uncover the association between cultures and pain (IASP, 2002).

Cultural Meanings of Pain

Chronic pain is a paradox of similar occurrences but results in different pain meanings. Through the unearthing of artifacts, medical containers, instruments, tools, and living quarters, scientists have learned a great deal about pre-literate societies. Findings indicate that there is a wide variety of idioms and categories among different cultures related to the existence and treatment of painful conditions (Free, 2001). One example is in the practice of cranial trepanation, which was an important cultural practice to the Paracas and Cuzco Indians from

Southern Peru (Andrusko & Verano, 2001; Free, 2001). The Indians perforated the skull to release pressure. This practice was predicated on the idea that this was a way to release evil spirits that inhabited the skull. This condition might seem painful, but culturally this practice was performed to alleviate the evil spirits from members of the tribe.

The medical literature in India, China and Islamic cultures describe the etiology of and treatments for pain (Free, 2001). Pain has a distinctive status in societies. Bodily mutilation and torture by some societies are a measure of worthiness and loyalty (Hama, 2001). A high tolerance to pain is considered enviable, especially within a religious context. In contrast, rural African Americans consider pain due to illness is not fortuitous, signals evil spirits are the culprit, and that pain is inevitable with aging (Hama, 2001). These individuals will refrain from seeing a medical professional because this is considered a normal occurrence of aging.

Northern Europeans appear to be less responsive to pain than Mediterranean whites while American Jews have a clinical view of pain, are more vocal about pain, and therefore, lean toward medical intervention for pain relief (Hama, 2001). Greenblum (1974) measured pain thresholds in Americans of Jewish decent and documented lower thresholds in Euro-Americans. Following a second measurement, the Europeans remained unchanged and Jewish Americans threshold increased, signifying a challenge to Jewish interests evoking a behavior change of solidarity and group identity. Cultural influences on pain perception are implied, but genetic predispositions might be in play and are the subject for future research, but remain unclear.

Recently, Chickering (2006) found that one of the most challenging aspects of delivering care to female patients in a remote area clinic in Guatemala is to interpret cultural and situational factors caregiver's use in their decision-making in the treatment of patients. Pain is the most common reason that these patients come to the clinic because women in Guatemala live hard lives and often come to the clinic with complaints of pain. A taxonomy of pain terminology with translations was developed in order to assist providers with the information needed to make treatment decisions because most patients present with pain when in fact the word "pain" constitutes an array of medical conditions (Chickering, 2006). The contention is that while different cultural influences affect pain assessment, treatments, and behaviors, individual pain behavior typically mirrors that of a group (Free, 2001). Although pain is an individual experience, pain behavior is largely a function of group attitudes and norms.

Culture determines whether pain requires solicitous behaviors from others or not, and individuals communicate varying degrees of bodily discord across cultures (Chickering, 2006). Accordingly, pain and pain control are culturally and socially construed. Kerssens, Verhaak, Bartelds, Sorbi, & Bensing (2002) found that physicians in 35 Dutch general practices, reported patients from North African countries who presented with the complaint of chronic pain regardless of varying degrees and etiologies of symptoms the patients described. The physicians almost inevitably diagnosed the patients' medical condition as something other than pain. In essence, both studies provide evidence to support the contention that beliefs about pain mimic group norms and practices.

Pain prevalence, however, and associated outcomes are relatively similar cross-culturally. As a result of a position paper on the subject of pain management written by the European Federation of Chapters of the International Association for the Study of Pain, pain prevalence studies have been conducted in Asia, Africa, the Americas, and Europe (Breivik, Collett, Ventafridda, Cohen, & Gallagher, 2006; Catala, Reig, Artes, Aliga, Lopez, Segu, 2000; Gureje, et al, 2008; Leclerc, Chastang, Ozguler, & Ravaud, 2006; Miró et al, 2007; Richmond et al, 2006; Ramage-Morin, 2008; Saastamoinen, Leino-Arjas, Laaksonen, & Lahelma, 2005; Schmidt, et al, 2007; Scudds, Li, & Scudds, 2006). This expanded view of pain and worldwide prevalence statistics has led to a move by the World Health Organization (WHO) to eradicate pain. During the Global Day Against Pain, the (WHO), the International Association for the

Study of Pain (IASP) and the European Federation of (IASP) released a consensus statement that treatment of pain should be a human right (Lynch et al, 2007).

Under Treatment of Pain

The health encounter is the foremost point where treatment for illness disparities occur (Institutes of Medicine of the National Academy of Science, 1999: 2003). Under treatment of pain is well documented and occurs frequently among women and ethnic minorities (Bond, Brevik, & Niv, 2004; Cepeda & Carr, 2003; Donovan, Dillon, & McGuire, 1987; Ferrell, Ferrell, & Osterweil, 1990; Hoffmann & Tarzian, 2001; Kaasalainen et al, 1998; Lynch, et al, 2007; Pasero & McCaffrey, 2003; Sullivan & Engel, 2005; Tait & Chibnall, 2005).

There are negative physiological and psychological changes as a result of untreated pain including increased blood pressure, increased heart rate in susceptible patients, delayed gastric emptying, constipation, increase in stress hormones, antidiuretic hormones, glucose elevation, delayed wound healing, anxiety, impaired cognition, depression, and sleep deprivation (Ekman & Koman, 2004; Pasero & McCaffery, 2003). Negative patient outcomes that accompany untreated pain include decreased function, increased agitation, and possibly an increase of mortality (Geda & Rummans, 1999; Joint Commission on the Accreditation of Healthcare Organizations [JCAHO] 2001, 2003). Untreated pain can manifest in negative economic, psychological, and physiological outcomes, which in turn have quality of life implications (Baker & Green, 2005; Ferrell, Ferrell, & Rivera, 1995; Gatchel, Peng, Fuchs, Peters, & Turk, 2007; Green et al, 2003; Sherwood, Adams-McNeill, Starck, Nieto, & Thompson, 2000; Skevington, 1998).

Nurses' knowledge and attitudes about pain and pain management directly affect whether individuals will receive effective pain management (McCaffrey & Ferrell, 1997; Stratton, 1999). The Nurses' Knowledge and Attitudes Survey Regarding Pain (McCaffrey & Ferrell, 1992) is a validated tool to assess pharmacological and nonpharmacological pain interventions and attitudes on pain management. Nurses knowledge and understanding of pain and pain management provides evidence that nurse pain researchers cite as an important component in alleviating the under treatment of pain (McCaffrey & Ferrell, 1992). Nurses reported differences in men and women in reporting pain, expressing pain, tolerating pain, and exaggerating pain, but the perceptions by nurses do not necessarily coincide with what patients in pain believe to be true.

Pain is always assessed through a direct patient-provider interaction and one of the main reasons for under treatment is the subjective nature of pain (Tait & Chibnall, 2005). A little known perception of pain patients is that patients are often satisfied with their pain care and although counterintuitive, simultaneously report unrelieved pain. Another interesting finding is the more perceived control patients had over their pain; the more satisfied patients were with their caregivers and with their pain care (Jamison et al, 1997; Pellino & Ward, 1998).

Conceptualizations or beliefs about the meaning of pain define the degree of variability in individuals experiencing pain and affects function. Since individuals in pain vary in perceptions and responses, research that focuses on gaining an understanding of an individual's pain beliefs and perceptions is imperative to successful pain management. Jensen, Turner, and Romano (1994; 2001) found an improvement in functioning and a decrease in health related visits were associated with changes in pain beliefs including control over pain and coping as a results of cognitive behavioral intervention from multidisciplinary treatment of chronic pain patients. Connections between beliefs and experiences can offer insight about designing pain management strategies and improving pain outcomes (Sherwood,Adams-McNeil, Starck, Nieto, & Thompson, 2000).

Assessment of pain is critical before treatment. Unless pain is promoted as the fifth vital sign, assessment is inconsistent and treatment cannot be evaluated effectively (Veteran Association National Pain Management Directive, 2003; McCaffrey & Pasero, 1999). Pain assessment and management are essential if national standards are to be met (Dufault & Sullivan, 1999; JCAHO, 2001; 2003). Accreditation bodies are now requiring evidence that health care providers understand the impact of culture on behavioral responses to illness (Williams & Kruse, 1999).

Chronic pain patients would benefit from outcome measures that they believe are important and necessary for partnerships to form and healing to begin (Health Services Research & Development National Meeting, 2008). Robinson et al.'s (2004) findings demonstrated there was a correlation between depression and anxiety in chronic pain patients, but only anxiety played a role in lower treatment compliance. Patients with the highest compliance ratings included treatment options that follow a medical model such as medications and follow-up visits. Patients were found to be less compliant when recommendations were psychologically based and incongruent with individual beliefs about pain etiology, beliefs, and treatments. Compliance is critical to positive pain outcomes and conversely, when treatments are incongruent with pain patient beliefs, pain management is often jeopardized because of non-adherence to medications and treatments.

Military Culture

Military culture imparts a collective consciousness between individuals so that a collective goal or mission can be achieved. Members are trained to use force and do so (Wilson, 2008). One excellent example of an organized institutional culture is the United States Armed Forces. Almost all cultures regard war and fighting as a domain for men (Sherrow, 2007). The profession of arms has heralded that male soldiers bond with each other and relinquishes all things feminine. Military culture has a longstanding belief that civilians and women are weak (Burke, 2004).

Women in the military are a subject of wide controversy among Americans, scholars, historians, and military leaders. There is a consensus among senior military leaders that, as

USAF Colonel Kennett's is quoted, "the United States military has historically been unappreciative to women". Female pilots in WWII were pushed aside only to be replaced with male pilots at the end of the war and, even more importantly, the Air Force senior leaders denied veterans' benefits to these female heroes. General Norman Schwarzkopf was quoted to say women were integral to the success of the Gulf War outcome (Gusterson, 1999).

The Virginia Military Institute's hesitancy to admit women prompted a surge in articles and books such as *In the Men's House: An Inside Account of Life in the Army by One of West Point's First Female Graduates* (Barkalow, 1990). As a former United States Naval Academy professor contends, the transition from boys to men in the military is based on the principle of the marginalization and degradation of women (Burke, 2004). The culture of rules and regulations by their nature promote a warrior mentality, which works against success of women in the military. Therefore, women who currently serve in the military are outside the mainstream military culture (Burke, 2004).

Several organizations covet traditional gender roles including the military and police forces. They have objectified and marginalized women using sexual harassment and assault (Dougherty & Smythe, 2004; Taylor & Conrad, 1992). One example of certain marginalizing behavior is that of sexual harassment. Findings indicate that invisible threats of sexual assault warrant the same physiological and psychological threats to the women's' psyche as actual threats because 95% of known perpetrators are male and well known to the women (McClosky & Raphael, 2005). This vigilant watch for the perceived threat that is likely to manifest is known as white noise (Wilson & Thompson, 2004).

Shell shock and later post PTSD were well known to combat soldiers but only taken seriously post-Vietnam when PTSD was classified as a mental illness (Foy, Ruzek, Glynn, Riney, & Gusman, 2002). Former sexual assault in both the military and civilian lives of women predisposes these women to more serious pain conditions. Co-occurring conditions, including psychiatric disorders and PTSD, are shown to increase primary and emergent health visit utilization, and in general poor health. The cultural message in the armed forces has been long-standing, beginning in combat "to take it like a man"; stoically.

Women service members experience the same consequences of assuming traditional male roles in civilian society (Poth, 1996). Military clothing and equipment were designed with men in mind and proved unfit for women's physique. Rations were nutritionally inadequate and high in calories for woman's routine weight requirements. Another example of military unprepared for the deployment of women reported that 22% of women received an annual gynecological examination, 23% of women lacked their brand of birth control pills and 44% received no gynecologic care because of lack of access (Thomson & Nielsen, 2006). Women soldiers reported the lack of understanding among commanders and embarrassment as barriers to receiving gynecological care (Thomson & Nielson, 2006). Although the military has made inconceivable strides in the equal treatment of women and minorities, unreported stressors are likely to still be prevalent for women and go unreported. These stressors potentially affect pain management.

History of Military Culture

Military historians are well acquainted with military culture. Historians consider military culture among the most important variables in understanding and studying warfare (Harari, 2007). All members of the military have one primary mission, which is to be ready to fight to win America's wars (Army Training Manual, 2005). Training is a crucial preparatory step toward this goal and military readiness is the fundamental goal of the United States Armed Forces. Historically, if women are to truly become full citizens, full military participation must precede citizenship (Woolacott, 1998). One can equate military service with citizenship, pension, and educational benefits, recognized as a political block in elections, and having a national dominion as a full and equal citizen. Since the post-Vietnam era and the civil rights era, the military has expanded the positions and recruitment of women to meet quotas and rebuild the numbers in the military to pre-war levels.

War is culturally constructed and in some cases, soldiers fighting the wars might consider war insignificant. The point here is that the emphasis is on external factors rather than the inner thoughts and feelings of the combatants as depicted in most military memoirs. Military memoirs include rich descriptions of the understanding of war through the eyes of the combatants and these memoirs contribute to the strategy and outcomes of war. A central component of military socialization is depicted in the memoirs of combatants who outline details of the war experience as operating "under a pile of cultural obstructions" (Harari, 2007). They concluded that the pile was an important filter through which the combatant viewed war and themselves (Harari, 2007). One could argue that the group consciousness about women service members and their pain is viewed and acted upon under a pile of cultural obstruction as well.

Cultural Awareness in the Military

"To wage war, become an anthropologist" (Porter, 2007 p. 45). At all military levels, from The Academy to the Pentagon, know thy enemy is the genre of the day. The United States Army War College "Know Before You Go: Improving Army Officer Sociocultural Knowledge" is one of the courses required in the Masters of Strategic Studies degree to prepare culturally competent military leaders of the 21st century (Laughrey, 2008). The idea of cultural dexterity is long overdue and examples are poignant throughout military history. Examples of United States military cultural collisions with other countries are frequently studied.

The President and the military leaders often disagree about which military strategy will accomplish swift victory and offer a clear and timely exit strategy. Military agility matters at all levels, military and government leaders can attest, and often leads to a narrow version of war and victory. Because of the unanticipated setbacks in Iraq, the United States military strategists argue in favor of a cultural revolution from the strategy used in 2003 during the invasion of Iraq (Peters, 1999). Not surprising, the stress experienced by military personnel is mediated by a nation's attitude towards the military. There exists an inverse relationship between casualties and morale. When morale is high, casualties are low, and when morale is low, casualties are high (Labuc, 1991). Pain can take on altered meanings depending on the view society places on the military and war.

An institution exhibits three characteristics including member identification, symbols to separate their members that exist to interact among themselves, non-members, and collectively with others (Wilson, 2008). One way to shape a culture is known as the Resource-Dependency Model. This ideology emphasizes the environment, while using the internal process of the culture to function. If resources are scarce, the environment restricts selection. Rational Choice Theory views the organization as goal directed and shaped by a mission. Institutions can stratify economic classes and powerful interests. Finally, the Institutional Model highlights patterns of behavior that are able to selectively guide development in a certain fashion. All of these approaches follow normal pathways and confront similar issues. Each institution follows a mission, defines its purpose, and decides on the relationship of itself to society.

For the purpose of this research study, military culture will be defined as an institution, which includes identification through its members, requires identifying symbols distinguishing members from non-members, and requires interactions internally, externally, and collectively with other institutions (Wilson, 2008). The cohesiveness of the military as an institution is integral in determining to what degree its personnel think and act in certain ways that are unique to its culture and important in determining the cultural characteristics of each military unit (Wilson, 2008). Institutions require a social basis for successful recruitment of members into its society. Individual members are indispensable and substitutability is maintained through recruitment, replacement, and promotion (Wilson, 2008).

Cultural knowledge is a core value in the United States Army counterinsurgency manual. Culture is mentioned 88 times and calls for culturally judicious leaders. Colonel H.R. McMaster developed the successful “clear, hold, and build” in Tal Afar and later the surge strategy (Porter, 2007, p. 38). He holds a PhD in military history with an emphasis on Vietnam counterinsurgency, and his chief strategist for counter-terrorism has a PhD in anthropology. Senior military leadership has an appreciation and an understanding of sociocultural knowledge, which have increased the effectiveness of the United States armed forces.

Senior leadership is aware that technology is the single most transformational change taking place worldwide which cannot be avoided in any organization; even the military. Technology is a powerful influence, which is unique in that the top down decision-making is forced by external influences and digital changes to compete for talent on a playing field with historically civilian resources including women. However, this task is unpredictable and unprecedented. The cultural influences of women in the military are intensifying and exerting internal and external pressure on the military system and the military culture at large. Cultural influences interact with individuals, power imbalances, and unanticipated circumstances that are not simplistic; but can be useful in preparing contemporary agendas for proposed change in institutions that are slow to respond to internal demographic changes and are out of step with the soon to be majority groups.

Internal Structure

The internal structure of the military is defined in terms of complexity, formalization, and centralization. This provides a framework for the internal processes of power and leadership and change can function during buildup (Hall & Tolbert, 2004). As armies expand, so do their regiments, divisions, and corps. With expansion, resources, information, and personnel are managed through written rules that pervade all levels of the organization. The levels are highly ordered and key decisions are made at the highest level and orders are transmitted down to the lower ranks to be carried out. While rules and regulations are part of the formal processes, informal processes such as loyalty cannot be regulated through normal channels. Many examples of senior ranking officials taking liberties existed throughout history and were conducted discreetly. Examples throughout history included upper ranking military officials accused of pocketing soldiers pay or stealing soldier rations or supplies which are military and civil offences today. Desertion has a colorful history and is largely based on the inability of military armies to provide for its own.

The underpinning of military culture is that there exists discreet, ongoing actions that routinely occur within the institutions of military life that and have been ingrained as normal occurrences. These routines become opaque in that the members at all levels cannot determine that the culture is not functioning up to standard (Wilson, 2008). Greenberg (2007) identified organizational stigmas in the military culture that create barriers to seeking and obtaining mental health care and require a “cultural shift” in the eyes of the military leaders. A cultural shift would include a system of support to the lower ranking service members in seeking mental health services without the fear of career repercussions.

More recently, underpinnings of racial harassment have been reported in the military. In 1996, 65% of military personnel surveyed reported experiencing racially threatening behaviors (Antecol & Cobb-Clark, 2008). Group identity is easily defined by race; however, those outside the target group conduct identification by using a variety of means. Personnel form identity among themselves, making decisions about attributes that others will use to categorize them. Examples include clothing, symbols, and mannerisms, which result in clear-cut boundaries between the group and the social order of the military organization. Once the boundaries are established, persons easily conform to the groups and make easy targets by those competing for similar resources creating friction among the groups (Fryer & Jackson, 2004).

There is evidence to support a clear association between psychosocial risk factors and acute and chronic pain. Saastamoinen, Laaksonen, Leino-Arjas, and Lehelma (2005) surveyed blue and white-collar men and women (N=5819, 66% return, 80% women). The associations of all psychosocial risk factors that, including bullying, organizational injustice, work-family interface, and job strain, on acute and chronic pain. Their findings indicated that all but work-family interface was associated with chronic pain among men, and all factors were associated with chronic pain among women.

The highest association was with high job strain and low justice. The odds ratio for high job strain and chronic pain was 2.52 to 1.94 among women when adjusted for by other factors. The authors included in the analysis their examination of eighteen continuous confounding variables such as lighting, noise, and solvents in the physical environment contributing to workplace strain (Saastamoinen, Laaksonen, Leino-Arjas, Lehelma, 2005). The same risk factors are frequently present in the military. Particularly for low-ranking, enlisted personnel, they may frequently have high job strain with no personal power, which limits their choices.

Group expectations change overtime as social and economic changes take place (Kleinman, 1988). Zobrowski (1969) concluded that the group expectation is important in defining pain as a clinical problem with a clinical solution, or whether pain is accepted as a part of serving in the military. One notable change within the military is the decreasing numbers of Caucasian men entering military service. One might imagine the language of pain and distress is changing as those suffering from pain are taking on the appearance of minority women who are inherently representative of today’s emerging military numbers and require pain care. Simultaneously, women service members’ report of a high prevalence of pain and these statistics are likely to increase as the numbers of women enter military service increases.

Recently, survey results of 753 military members indicated that 96% reported they were in pain and 54% reported pain of more than 10 years in duration (APS, 2006). Of those reporting pain, veterans pointed to military culture is a significant barrier in seeking relief from chronic pain and these perceptions about military culture, as a barrier to pain management remains unexplored to date (APF, 2006). Simultaneously, these same results found that the perception of service members was that military training and the culture of the military required service members in pain to be “stoic”. Although this belief is held by (32%) of the service member respondents, this belief might not be held by all service members in pain. Modern warfare, high survival rates, and failure to consistently treat pain contribute to chronic pain conditions resulting in long-term costs for the military and society.

Pain research demonstrates that attitudes and beliefs mediate pain behavior although these constructs in response to treatments (Jensen, Turner, Romano, & Lawler, 1994) and in adjustment to pain (Jensen, Turner, & Romano, 2001; Jensen & Karoly, 1991) relatively new (Tait & Chibnall, 1996). What is more troubling is that the APS survey results also indicated that 96% of service members in pain were experiencing significant daily unrelieved chronic pain, which is indicative of private pain. According to Engel, private pain is dependent on a signal from an individual that pain exists. Private pain behavior is deliberate and depends on the social, cultural, and psychological context (Helman, 2007). Therefore, these factors will define whether private pain translates into pain behavior, the form the behavior takes, and where the behavior occurs.

Chronic Pain in the Military

Chronic pain is reported in 700,000 veterans annually and is associated with varying degrees of disability (AGS Panel on Persistent Pain, 2002; Kazis, et al, 1998). Pain of veterans is reported as significantly worse than the public at large because of exposure to injury and psychological stress (Arnstein, Cadill, Mandle, Norris, & Beasley, 1999). Aging veterans with co-morbidities and chronic illness are bound to experience increased peripheral neuropathies and arthritis (APS, 2006). Concurrently, pain in veterans is influenced by homelessness, substance abuse, physiological and psychological war injuries, and post-traumatic stress disorders (Crosby, Colestro, Ventura, & Graham, 2006). Shipherd (2007) recently found that 66% of 90 male veterans diagnosed with PTSD revealed a problem with chronic pain. In fact, Villano et al (2007) found that 24% of veterans met the criteria for PTSD and chronic pain and were more likely to be older, have at least one chronic condition, report higher degrees of psychiatric distress, a history of sexual abuse, and a lower overall confidence to cope

Pain outcomes that are determined by the patient to have meaning for them are by far, what really matters to patients in pain. Survey results indicated that over 68% of veterans reported pain and were taking medications and 48% of these veterans considered the medication ineffective (Crosby, Colestro, Ventura, & Graham, 2006). Barry et al (2004) reported similar findings with coping strategies of older adult male veterans in New England. A large percentage (78%) of these older adults reported using analgesic medication and 48% stated this strategy was quite effective in relieving pain. When combined with other strategies such as exercise (35%), cognitive coping (27%), religious activities (21%), and limiting activities (20%), treatment proved useful in relieving pain. A total of 15 coping strategies were in use and a detailed taxonomy illuminated the range of pain relief strategies used by older adults (Barry et al, 2004). One important finding reported 52% of these patients used three or more strategies to relieve pain concluding that multimodal strategies will likely improve pain outcomes and functional status in aging veterans. Evidence favors multimodal pain management treatment programs because they are cost-effective and improve pain relief but inconsistent methodological adequacies, referral patterns, representativeness, and inconsistent exclusion criteria prevent conclusions from being drawn (Gatchel & Okifuji, 2006).

The significance of pain and whether to seek medical attention is culturally defined. An exemplar in the military is evidenced by a recent survey reporting that one-third (32%) of veterans reporting pain felt that asking for pain treatment jeopardized their military status or career in the military and one-half (48%) indicated military training to be stoic was a barrier to pain treatment (APS, 2006). Sherwood, Adams-McNeill, Starck, Nieto, and Thompson (2000) reported that some patients believed that pain was inevitable and needs to be tolerated. The variance in this belief depends on the cultural context and background of the patient and should be taken into consideration during the pain assessment and pain evaluation phases.

Harper (2006) demonstrates another more recent exemplar of this occurrence where new recruits in the Royal Air Force were led into the stronghold of military service by suppressing emotions and remaining stoic through painful training endeavors. The “no pain, no gain” belief is a tradition that new recruits soon learn from other seasoned recruits to exhibit during training exercises. This behavior, known as distraction, is a proven method to decrease pain sensitivity (McCaffrey & Pasero, 1999). Military leaders are known for employing distraction as a method necessary to mimic conditions of war and include exhaustion, harsh climates, and lack of sleep while preparing for war (Beecher, 1946). These findings indicate that if health care providers rely on the observation of pain behaviors in service members to determine the existence of pain, discrepancies in pain assessment can occur. Survey findings indicate veterans report pain as prevalent and remains under treated, yet self-reports are the hallmark of pain assessment (McCaffrey, 1968).

A review of the literature on pain behaviors research indicates that individual groups who perceive pain as more intense and debilitating are individuals of lower social and economic status in society (Baker & Green, 2005; Chibnall & Tait, 2005; Koster, Bosma, & Kempen, 2004; King, 1999; Marmot, 2004). For example, African Americans report greater levels of pain than whites for such conditions as glaucoma, acquired immune deficiency syndrome (AIDS), migraine headache, jaw pain, postoperative pain, myofacial pain, angina pectoris, joint pain, non-specific daily pain, and arthritis (Breitbart et al., 1996; Edwards, Doleys, Fillingim, & Lowery, 2001; Edwards, Fillingim, Keefe, 2001; Karus, et al., 2005; Pasero & McCaffrey, 2003).

African Americans report a higher incidence of pain severity and disability related to pain, and a greater incidence of pain determinants (Chibnal & Tait, 2005; Edwards, Doleys, Fillingim, & Lowery, 2001).

Evidence suggests that Hispanics and Blacks received fewer analgesics in inpatient, outpatient and emergency room settings than non-Hispanic whites (Sullivan & Eagel, 2005: Todd, Samaroo, Hoffman, 1993). Cleeland, Gonin, Baez, Loehrer, Pandya's (1997) research concluded that Hispanic patients reported more inadequate pain relief than Black patients. Bonham (2001) conducted a systemic literature review on inequality in pain management and suggested the need for cultural awareness and better assessment of pain as solutions to improving these disparities. Solutions to disparities in pain management far exceed biological research and need to include the effects of gender, ethnicity, and behavior of both provider and patients (Sullivan & Engel, 2005).

Arguably, vulnerable groups of individuals with low status and social influence have poor heath and perceive restricted control over their life (Marmot, 2004). A social hierarchy exists within organized cultures in which assumptions, images, and stereotypes, are formed to sustain notions about certain groups, which are perceived by all members to be operating as truths (Hawton et al, 1999; McFarland, 2005). Enlisted women are of lower social status and have little control over their own life, which contributes to an increased sensitivity to pain and poor pain management (Bates, 1987; Chibnall & Tait, 2005; King, 1999; Marmot, 2004). Unfortunately, pain research has not readily addressed the socio economic status, social, and cultural influences on pain management in minority groups, specifically enlisted women (Chibnall & Tait, 2005).

Pain in Enlisted Women and Men

Pain remains a significant problem in veterans at large and is one of the leading causes of short and long term disability among active and retired military personal (Military Pain Care

Act, 2008; APF, 2006). The Veterans Health Administration (VA) National Pain Management Strategy (2003) provided the impetus for promoting pain research opportunities along with priorities in pain management. The plan also provides a system-wide model of care to reduce preventable pain among veterans (Kerns et al, 2006; VA Office of Inspector General (OIG); VA Pain Management Initiative, 2003). Another result is an increase of 27% of funding in pain related research from 2005 through 2007.

The VA is credited with mandating pain as the fifth vital sign, bringing awareness to the suffering among veterans center stage, but pain management remains elusive for many veterans (APS, 1995; McCaffrey & Pasero, 1997; APF, 2006; Veterans Health Administration National Pain Management Strategy, 2009). Despite focused research efforts and pain initiatives, veterans continue to experience moderate to severe pain on a daily basis and a notable high prevalence of pain especially among women veterans (APF, 2006; Frayne et al, 2006; Haskell, Heapy, Reid, Papas, & Kerns, 2006).

Acute Pain in the Military

Pain continues to be reported as one of the most frequently occurring symptoms among veterans returning from overseas military engagements (Gironda, Clark, Massengale, & Walker, 2007). Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) have intensified the health care needs of returning veterans placing a chasm between health care resources for veterans currently receiving care and a surge of veterans returning from overseas needing care.

Persian Gulf veterans report significantly higher pain than those veterans who did not serve in the Gulf indicating the likelihood of increasing pain syndromes among veterans returning from recent military engagements. Persian Gulf veterans (N=15,000) report high prevalence of headache, joint, back, muscle, and abdominal pain than those who did not serve in the Gulf (Stuart, Murray, Ursano, Wright, 2002). Gulf War Veterans’ joint pain adversely affected daily functioning and their quality of life. Chronic pain is no doubt a likely outcome if acute pain remains at high levels with under treatment in both men and women alike.

Veterans returning from OEF and OIF will continue to increase in numbers and require multidisciplinary pain care that is unparalleled (Clark, Bair, Buckenmaier, Gironda, Walker, 2007). The blurring of boundaries in combat zones has made combat and non-combat areas less distinct, placing women under fire and in harm's way. About 37,000 American women served in OEF and OIF some of whom died, were wounded, or taken prisoner (Gusterson, 1999). Pain will be a serious consequence of recent war and will likely result in an increased prevalence of chronic pain conditions in women service members at large.

Pain in Enlisted Women

Women service members are at increased risk for pain (Goldzweig, Balekian, Rolón, Yano, & Shekelle, 2006). Women service members (N=-218) receiving primary care services reported a high prevalence of pain 78% and between 64.3% - 89.5% indicated pain levels over the past 3 months in at least three bodily sites (Goldzweig, Balekian, Rolón, Yano, & Shekelle, 2006). This high prevalence of pain in women service members is a concern to health care providers (Goldzweig, Balekian, Rolón, Yano, & Shekelle, 2006; Haskell, Heapy, Reid, Papas, & Kerns, 2006; Military Pain Care Act, 2008).

There is evidence that women service members are at risk for PTSD (Dobie, et al, 2004) and sexual assault (Hankin, et al, 1999), that when combined with other risk factors such as gender and ethnicity predispose these women to chronic pain conditions (Goldzweig, Balekian, Rolón, Yano, & Shekelle, 2006). Dobie et al. (2004) found that 22% of women veterans were diagnosed with PTSD and were twice as likely to suffer from bodily pain. Another study found in 3632 women veteran patients, 23% reported being sexually assaulted while in military service and reported a higher prevalence chronic pain conditions (Hankin, et al, 1999; Walker, Katon, Roy-Byrne, Jemelka, & Russo, 1993).

Of 219 veteran women, 78% reported ongoing pain with a mean of 6 years in the areas of lower extremity (68%), shoulder (48%), and low back (63%) pain with older women (>66) reporting fewer pain treatments. The highest pain prevalence was in the 36-50 age groups (Haskell, Heapy, Carrington-Reid, Papas, & Kerns, 2006). Women who reported pain also reported an increased number of both mental and medical health visits than those without pain (Haskell, Heapy, Reid, Papas, & Kerns, 2006; Kaur, Stechuchak, Coffman, Allen, Bastian, 2007). Kaur, Stechuchak, Coffman, Allen, Bastian (2007) found that women experiencing chronic pain and who were diagnosed with a psychiatric condition, including depression, were more likely to seek outpatient care.

Women service members are not only at increased risk for pain, but are likely to experience persistent pain because of co-morbidities. Co-morbidities such as posttraumatic stress disorder, depression, and anxiety interact to produce both negative consequences of pain and result in negative quality of life outcomes (Gatchel, Peng, Fuchs, Peters, & Turk, 2007). Enlisted women are at increased risk for not only pain but also long-term disability, which leads to a poor quality of life. According to the VA Women's Health Program Evaluation Project, 28,000 women veterans reported generally having poor health. Bodily pain was notable highest from 3.2% in the > 75 age group to 26.1% in the 18-75 year old Black age groups and 1.4% to 7% across Hispanic age groups (Frayne et al, 2006). Persistent pain and co-morbidities compromise the health status of these women service members, which results in an increase in health related visits (Haskell, Heapy, Reid, Papas, & Kerns, 2006).

The psychological impact of the social and organizational environments are strong predictors of health and pain (Hemingway & Marmot, 1999; Kaarla, et al, 2005). Women who serve are both living and working in the context of military culture. Within this culture, factors that influence daily decision-making about health are unknown. Gatchel (2008) identified enlisted women as a particularly vulnerable group because of their volunteer status and military rank and identified these women warriors at increased risk for chronic pain conditions (Gatchel, personal communication, 2008). Over 33% of active duty enlisted women are African American (Department of Veterans Affair Center for Women, 2007). The enlisted women would differ from women officers, but to what degree is unknown, especially in the chronic pain trajectory.

It is well known that acute painful conditions, if left untreated, can result in chronic pain conditions and disability (McCaffrey, 1999). Women service members experiencing pain are representative of what constitutes the larger pain population of women who have been identified at risk for chronic pain outside of the military in society at large (NIH Pain Consortium, 1998). There are unknown factors within the culture of the military that impede service members' ability to obtain pain relief. Until these perceived factors are uncovered, pain relief will continue to be elusive and remain pervasive among service members. Although pain prevalence in women service members is well documented, further investigation is necessary in order to move the pain research agenda forward and provide comprehensive health care services to women service members in the assessment and treatment of pain conditions. One approach necessary to accomplish this aim is to include women service members in the research process and allow them the opportunity to disclose the influences that affect their chronic pain experience and, in particular, the factors that influence their ability to manage their chronic pain.

Chronic Pain Risk in Enlisted Women

A culture with a ubiquitous population at risk for chronic pain conditions are enlisted women veterans in the United States Armed Services. Enlisted women comprise 82% while officers comprise 18% of military women. As of September 2008, there are 1, 802, 491 total women in the U. S. military and of those, 1,614, 168 are enlisted women (Department of Veteran Affairs, 2007). Enlisted women encompass 178, 428 of the total 213, 724 women in active duty (DOD, 2005). Currently there are 1.2 million active duty enlisted in the U.S. military (Department of the Census, 2007). Annually, 20% of the new recruits are women and are in the lower ranks of military hierarchy, vastly outnumbered by men. Of these new recruits, 92% are between the ages of 17 and 24 and about one-half are minority women (Hopkins-Chadwick, 2006). The increasing numbers of enlisted women will result in an increase in the numbers of enlisted women residing in the least powerful positions within the military and substantially at increase risk for chronic pain (Hopkins-Chadwick, 2006).

Norwood, Ursano, & Gabby (1997) reported 31% of enlisted women feel stress being a woman in the military. According to Hopkins-Chadwick (2006), research needs to be conducted that considers the cultural (environmental) aspects of military life in the junior ranks of women in the military using Marmot & Wilkinson's (1999) framework for the future study designs. The model incorporates the early life determinants of the women such as genes and culture within the context of work, social structure, resources, and psychological factors to study the effects of factors on the health of a population. Although the model would provide a useful framework for this study, chronic pain has an inordinate amount of research that demonstrates the association between a lower socioeconomic status as predictors of chronic pain.

This study gave voice to enlisted women service members' about perceived ability to manage their pain while living as a soldier vigilantly training for military readiness. Enlisted women in this group are unique in that the social and cultural factors in the context of military culture contribute to the health status of these women, and affect their chronic pain experiences.

Women service members are a unique cultural group in that women who volunteer for military service enlist into a culture that has historically been designed and dominated by men. More importantly, chronic pain research in enlisted women service members is absent (NIH Pain Consortium, 1998). Notwithstanding, women service members chronic pain experiences are different from males but in what ways and to what degree are unknown and unexplored.

Survey findings espoused by service members themselves reported ineffective pain management (APS, 2006). Although culture is usually representative of racial or ethnic origin, organizational cultures are deep-rooted with what group members believe to be operating at all times within the organization and these beliefs can influence health practices and behaviors. The factors that influence the chronic pain experience have not been explored; specifically in women service members experiencing chronic pain.

Summary

The integration of women in the military has been rapid and recent; health care for women has been slow and a low priority. The portrayal of women in the military has been downplayed in military history, but is now a priority in the minds of recent military leaders. The Veterans Administration is leading the way by prioritizing women's health research. Since women suffer from chronic pain syndromes more than men do, factors that exist in the military culture need to be identified so pain can be reported and controlled. This research uncovered the factors that influence the chronic pain experience that are perceived by enlisted women to contribute either positively or negatively to their ability to manage their pain.

CHAPTER 3

METHODS AND PROCEDURES

Introduction

This chapter describes the process of conducting ethnography of enlisted women experiencing chronic nonmalignant pain. The method, rationale, sample, gaining access, VA approval process, setting, data collection method, procedure, rigor, ethical considerations, and data analysis will be discussed. This ethnography describes the factors that influence the chronic non-malignant pain experiences of 15 enlisted women currently receiving or who have received pain care at the James Haley Veterans Health Services Administration Women's Clinic in Tampa, Florida.

Method

Ethnography was used to describe the shared meaning of the chronic pain experience and apprehend the meaning of chronic pain within the context of everyday life for enlisted women (Spragley, 1979). The results that were created from the qualitative inquiry resulted in the discovery of the factors within the context of military culture that influenced pain beliefs and behaviors that are common to enlisted women (Koch, 1993). Ethnography is the guiding methodology that provided the data for this study and the written product itself (Savage, 2006). The researcher took the everyday occurrences and conveyed these occurrences into discriminating events in the context of those that experienced chronic pain (Dixon-Woods, 2003; Hamersley, 1992). The ethnography as product written by the researcher represented the reality of enlisted womens' chronic pain experience in the context of military living (Hamersley, 1992). Accordingly, ethnography was used in understanding linkages of causation which formal methods of inquiry have neglected (Dixon-Woods, 2003).

Rationale

Despite the disproportionately higher incidence of chronic pain conditions reported among women, military women have been historically excluded from chronic pain research (Berkley, 1997). Pain management initiatives and protocols have been designed by health care providers for use by providers and been designed with evidence that was gleaned from samples of male veterans.

Women and men differ in pain intensity and assessment, and health care providers must be attentive to these differences to properly assess pain (Roth, Geisser, & Bates, 2008). No laboratory tests measure pain therefore, physical findings, direct observation, and self-reports of pain are common methods providers use for assessing pain (APS, 2003). Analytical findings along with physical findings complete the multidimensional assessment of an individuals' pain.

Assessment of pain is essential before treatment (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007). The International Association for the Study of Pain (2002) urge qualitative research on the ways culture shapes the pain experience. Since no research has been conducted to date showing how military culture influences enlisted women service members' chronic pain experience, ethnography was conducted.

A defining culture such as the military has an effect on pain beliefs and pain management for enlisted women with chronic pain. The ethnographic approach produced brief illustrations of behavior that lives within a culture (Geertz, 1973). The hallmark of ethnography is participant observation through fieldwork (Thomas, 1993; Spradley, 1979). Grounded theory was considered, however; since the biopsychosocial model will be used, this study already has a theoretical framework. Therefore, theory development was not the aim of this study.

Phenomenology was also considered, but focused more on the lived experience of chronic pain, which would not highlight the sociocultural variable of pain. Ethnography depicted the everyday life of military women and their understanding of their chronic pain experience in the context of military life.

Chronic pain is a symptom that rarely exists in isolation, therefore, the biopsychosocial model of pain highlights the multiplicity of the pain phenomena and is widely accepted (Kerssens, Verhaak, Bartelds, Sorbi, & Bensing, 2002). Quantitative chronic pain research, using the biomedical model, has dominated the chronic pain literature, focusing on single aspects of chronic pain. Chronic pain research has centered on "causal explanations, prediction, and control discounting individual meaning" (Munhall, 2007, p 10).

Recently, celebrated chronic pain researchers announced that the client is the centerpiece for determining meaningfulness of chronic pain treatment effectiveness (Dworkin et al, 2008). A consensus among these pain researchers recommended that significant statistical findings may not yield clinically significant findings, which rendered significant quantitative findings inadequate (Dworkin et al, 2008). Indeed, few quantitative studies document the treatments that patients' say worsens pain or consider significant differences in treatment outcomes. More importantly, outcome measures have been developed with little input from patients (Dworkin et al, 2008). Therefore, quantitative research findings are lacking when researching a multidimensional experience such as chronic pain.

Qualitative methodologies are gaining momentum because of the disillusionment of questionnaires and survey methods, which document areas of concern but without substance, and have proven to often ask the wrong questions (Verhaak, Kerssens, Dekker, Sorbi, Bensing, 1998). Researchers have established that in addition to these deficiencies, inconsistent definitions of chronic pain contributed to the varying ranges of findings between studies making comparisons difficult and drawing conclusions impossible. A vigorous literature review failed to provide any research studies about military women and their personal chronic pain experience. Pain beliefs and perceptions in the context of military life as a military woman are important in understanding why certain pain care customs are practiced and the inferences about pain that must be in place for these pain care customs to occur.

The culture of military rules and regulations promote a soldier mentality, which works in opposition to the success of military women (Burke, 2004). Therefore, military women are on the periphery of majority military culture (Burke, 2004). This military culture impacts the chronic pain management of military women and is evidenced by a significantly higher pain prevalence (75%) rate than women in the general population (Haskell, Heapy, Reid, Papas, & Kerns, 2006).

Chronic pain in enlisted women is known to be heightened by posttraumatic stress disorder, a serious medical condition, and general poor health (Dobie et al, 2004; Frayne et al, 2006; Haskell, Heapy, Reid, & Kerns, 2006). The sociocultural dimensions of pain have received the least attention by researchers of chronic pain (Hopkins-Chadwick, 2006). In fact, the sociocultural variable can diminish or amplify the chronic pain experience (Derbyshire, 2008). These sociocultural dimensions that is inherent in military culture merited investigation by nurse researchers.

Once we discover what influences an enlisted woman service members' ability to manage their pain, providers have a clearer understanding as to what women experience in daily life. The implications for nursing practice will result in recommendations for pain outcomes and pain self-care in these women that otherwise might have been overlooked. Once women disclose the aspects of living life as enlisted women with chronic pain, women can give meaning to their chronic pain experience. Health care providers can gain an understanding of the personal nature of pain through interaction with the patient (Ebner, 1997).

Sample

The desired sample was enlisted women between the ages of 18 and 59 who were experiencing chronic non-malignant pain for at least three months. Enlisted women included self-identified active duty, discharged, or retired women. Enlisted women between the ages of 18 and 59 were chosen because older women have chronic pain related to aging that may not be related to military life or culture. Officers were excluded because they were not exposed to work duties and hazardous conditions that enlisted women were exposed. Six health care providers were also interviewed in order to gain their perspectives about enlisted women and chronic pain.

The exclusion criteria included anything that interfered with their ability to participate in the interview process because of cognitive, mental, or scheduling limitations, or being an officer. Enlisted women who had an acute medical condition considered by their physician as serious or life threatening were not included. A convenience sample resulted in almost all retired or discharged enlisted women with only one active duty woman. The sample ended up being 15 enlisted women between the ages of 28 to 59 who were experiencing non-malignant chronic pain, either received or was receiving care at the James Haley Veterans Administration Women's Clinic, and 6 health care providers.

Three procedural approval factors influenced the final sample size. The first factor was the quantitative mindset of the Veterans Administration Research and Development Department (VAR&D) committee and the IRB. The proposal stated 15 to 30 women would be sampled, but the IRB paperwork only stated 15. This limited the researcher's ability to include more women. During the initial submission, the VAR&D decided to exclude two of the three data collection methods: field journal and field notes. The committee argued that the VA was not public domain and therefore, observations were not permitted without consent of the participants.

Secondly, the committee excluded the $10 lottery ticket as compensation for the participants' time. The principal investigator and the Co-PI modified the protocol and deleted the field journal, observations, and lottery ticket. The researchers substituted a $10 gift card instead of the $10 lottery ticket.

The second factor was that the research approval process that a non-VA employee was required to follow was lengthy at best. The process that was required to meet the VAR&D and IRB submission requirements commenced seven months prior to the initial submission to the VAR&D. Due to the lengthy time period anticipated and a conversation with the representative on the VAR&D committee, the researchers determined that the sample size ought to be submitted as a fixed number of participants rather than a range. A sample of 21 participants was determined to be the sample size number. This measure ensured the VAR&D allowed the study move to the (IRB). A total of fifteen enlisted women and six health care providers were interviewed about pain and pain care. No demographic data was collected on the providers. One final measure was enacted by the researchers that ultimately determined sample size.

The researcher enlisted the expertise of Dr. Patricia Quigley, PhD, MPH, ARNP, CRRN, FAAN, the VA Co-PI, and Dr. Robert Gatchel, Ph.D., ABPP, a military chronic pain expert, and verified that the enlisted women met the inclusion criteria. Both experts agreed that one participant needed to be excluded from the sample because she had served as both an enlisted women and an officer. A final sample included 14 enlisted women and 6 providers.

Description of the Setting

The city of Tampa is the largest city in Hillsborough County, located on the west coast of Florida. Tampa is the largest port city in the state and the seventh largest port in the nation. The port of Tampa is the busiest in Florida in tonnage and designated home of the ever-expanding cruise industry second only to Miami (Tampa Bay Chamber of Commerce, 2009). According to the U.S. Census estimates in 2007, Tampa is ranked third in population in the state and a population of 382,060. Tampa is home to the number one rated airport in the United States and heralds a thriving business community, which is touted to continue to expand into 2020.

Tampa is ranked third among US metropolitan areas because of low business costs and ranks second by the Tax Foundation study of business friendly tax environments (Tampa Chamber of Commerce, 2009). The largest employers in Tampa are educational services, health care, and social assistance followed by professions in science and administration (U.S. Census Bureau, 2007).

History

The military has had a major role in the expansion and financial development of Tampa. The port of Tampa served as the initial launching point for the soldiers bound for Cuba during the Spanish American War. The twelfth president of the United States, Zachary Taylor, commanded Fort Brooke from 1838 until 1840. Fort Brooke was the first office headquarters of Major General Andrew Jackson, the first provincial governor of Florida. Fort Brooke was built to fend off Native American assaults. The First United Methodist Church was built in 1846 near Kennedy Boulevard and Morgan Street. Stonewall Jackson donated $5 toward the construction of the church while he was stationed at Fort Meade. A partnership with the business community and Mac Dill Air Force Base has resulted in an economic impact of 6.7 billion to Tampa and surrounding areas.

Since 1941, Mac Dill Air Force Base maintains an essential connection with base personnel, the military at large, and the community of Tampa. These alliances provide a vital link to the economic success of the Tampa Bay area. Mac Dill Air Force Base is located on 5,767 acres of land and 906 acres of wetlands eight miles south of Tampa. Mac Dill Air Force Base is a U.S. Central Command (CENTCOM) Center and employs 12,000 military and 1300 civilian personal. This location and celebrated associations is one of the primary reasons both military and retired military persons live and work in Tampa and the surrounding counties.

According to the Census Bureau (2007), Florida ranks fourth in the nation in total numbers of veterans nationwide. Tampa is home to both retired officers and enlisted personal who remain in Florida once they transition into civilian life. These veterans contribute to the success of the economic climate of Tampa Bay and the surrounding area long past military service. Accordingly, large numbers of active duty and veteran women are receiving care at the James A. Haley VA Women's Clinic. Mac Dill Air Base is the current duty station of General David H. Petraeus, Commanding General, Multi-National Force-Iraq and General Lamont, Commander of the Allied Coalition Forces (Smith-Beatty, personal communication, 2009).

The James A. Haley Medical Center is a comprehensive 327 bed tertiary teaching facility that services veterans in Central Florida. The facility is dedicated to providing in-patient and outpatient treatment in medicine, surgery, psychiatry, neurology, and spinal cord injury and rehabilitation services. In August 2007, the Tampa VA received full accreditation by the Joint Commission on the Accreditation of Hospitals and magnate status for nursing excellence.

The women's clinic is located in trailer 62 (T-62) on the James A. Haley VA Hospital campus behind the main hospital building. The women were scheduled to be seen by physicians and nurse practitioners for primary health care visit for most conditions with the exception of prenatal care. The clinic operates from 7:30 am until 4:30 pm Monday through Friday and each provider was scheduled on average about fifteen patients a day. Women arrived as early as 7:00 am and were scheduled to be seen at 30-minute intervals. Women are expected to arrive for their scheduled visit and depending on the type of aftercare; they often spent most of their day in tests and treatments. The parking situation was a challenge because the complex spans about four city blocks. I averted this problem by staying in a hotel that arranged for a shuttle to take me to and from the clinic.

Gaining Access

There were three selection criteria used to select the site: the VA located in the states with the largest women veteran populations, the women's clinic serving the largest numbers of women, and gaining access to the VA as a non-VA employee. The largest numbers of women's veterans were located in California, Texas, Florida, Virginia, and Louisiana. Therefore, the researcher began the selection process in early 2006 and identified three potential sites: The Overton Brooks Veterans Medical Center in Shreveport, LA, the VA North Texas Center in Dallas, TX and the James A. Haley VA Hospital in Tampa, FL.

The second step was to identify the nurse researchers at these facilities and schedule an initial introductory meeting. The interviews were conducted in person or via teleconference. Several facts became known during the initial meetings that influenced the outcome of the selection process; the researcher was not a VA employee and would require a VA researcher to serve as the site contact, and a non-VA employee was required to apply for a Without Compensation appointment to conduct research. Accordingly, a VA employee would be required to serve as the both as the VA principal investigator and the sponsor for the researcher to secure the Without Compensation appointment. This requirement became a decisive factor in the final site selection.

The VA facilities in Dallas and Shreveport were located in close proximity to the researcher, but did not meet all three of the selection criteria. The James A. Haley Veterans Hospital is the site of the largest women clinic in the VA, Florida boasts the third largest numbers of women in the military, and the availability and willingness of a nurse researcher to serve as the VA employee principle investigator.

After the initial introductory meetings, I identified Dr. Patricia Quigley in August 2008, who served as both the Without Compensation appointment sponsor and the principal investigator (P I). I was known as the Co-PI as per VA protocol. Dr. Patricia Quigley was familiar with the procedures that included Without Compensation appointment paperwork, the electronic submission of the proposal to the VAR&D, the electronic submission of the VAR&D approval to the University of South Florida Institutional Review Board (IRB), and the submission of the IRB approval to the Veterans Administration compliance officer. Once all of the approvals were obtained, she authorized the researchers' computer access and scheduled the Veterans Administration computerized medical record passwords and training.

VA Approval Process

Gaining access included several phases: 1) identify a site-specific qualitative nurse and 2) facilitate the contact between the women's clinic coordinator, nurse practitioners, physicians, staff, and patients. The P I provided a level of trust between the VAR&D and the clinic's staff and patients. Institutional Review Board (IRB) approval was sought at The University of South Florida, the IRB for the James A. Haley Medical Center before the study commenced. IRB approval letter and consents were also sent to the University of Texas at Arlington IRB to meet their requirements for students conducting dissertation research before the study commenced.

The Without Compensation appointment application was completed and submitted in January 2009 and the Without Compensation appointment was obtained on February 12, 2009 and valid for 6 months. The appointment was later extended to February 2012 due to the lengthy study approval process. The extension required a background check and was granted in August 2009. Once the appointment was granted, the research proposal was submitted to the VAR&D on May 1, 2009 for the initial review and approved with revisions on June 4, 2009. The study was modified, resubmitted, and was approved by the VAR&D on October 9, 2009.

The University of Texas at Arlington approved the study in November 2009. Finally, the VAR&D compliance officer approved the IRB approved study on November 19, 2009. A new verification process was put into place during this period that was required for all licensed personnel before being allowed to work. This is known as VetPro verification and this paperwork was initiated on December 1, 2009. The compliance officer granted final approval on December 14, 2009, for the Co-PI to actually be allowed on site. The researcher arrived in Tampa on December 12, 2009 and made arrangements to tour the outside of the facility on the weekend with security. I was escorted to the women's clinic trailer (T-62) first, and then the research building. I was scheduled for computer training on December 14, 2009 and afterwards I was scheduled to report to the women's clinic for orientation.

Data Collection

Pain experiences of enlisted women were explored using semi-structured interviews with 14 participants, several key informants, and six health care providers. Participants agreed to be audio taped and to keep pain diaries (Appendix B). The Co-principle investigator explained the study and obtained informed consent (Appendix C). After the participant was consented, the participant completed a demographic sheet (Appendix D).

Demographic information was collected and included age, ethnic origin, branch of military service, era of military service and rank. Co-occurring conditions included history of sexual abuse, mental illness, alcohol or illegal drug use, relationship status, current living situation, employment status, income, current medications, disability index (if applicable) and number of health encounters within and outside of the Veterans Administration in 2008 and 2009.

A series of grand tour questions were used as a guide and the interview was audio-recorded (Appendix E & F). The interviews took approximately 1.5 to two hours. Semi-structured interviews were conducted in order to determine the beliefs and perceptions about pain and pain care that was perceived by these individuals to contribute to the pain experience of enlisted women. All interviews were conducted in a private office assigned to the researcher by the nurse supervisor and confidentiality was protected. Participants and providers at the women's clinic were asked throughout the study to review and verify the preliminary findings.

The data collection flow sheet outlined the process (Figure 1).

The implicit and explicit understanding was apprehended during the data collection and analysis phases. The role of the Co-PI remained fluid and she did not assume any role classification (Junker, 1960). Data that was collected included semi-structured interviews of participants, observations of pictures and drawings of the women's clinic, pain diaries, and document analysis including pain text from printed materials (Wolf, 2003).

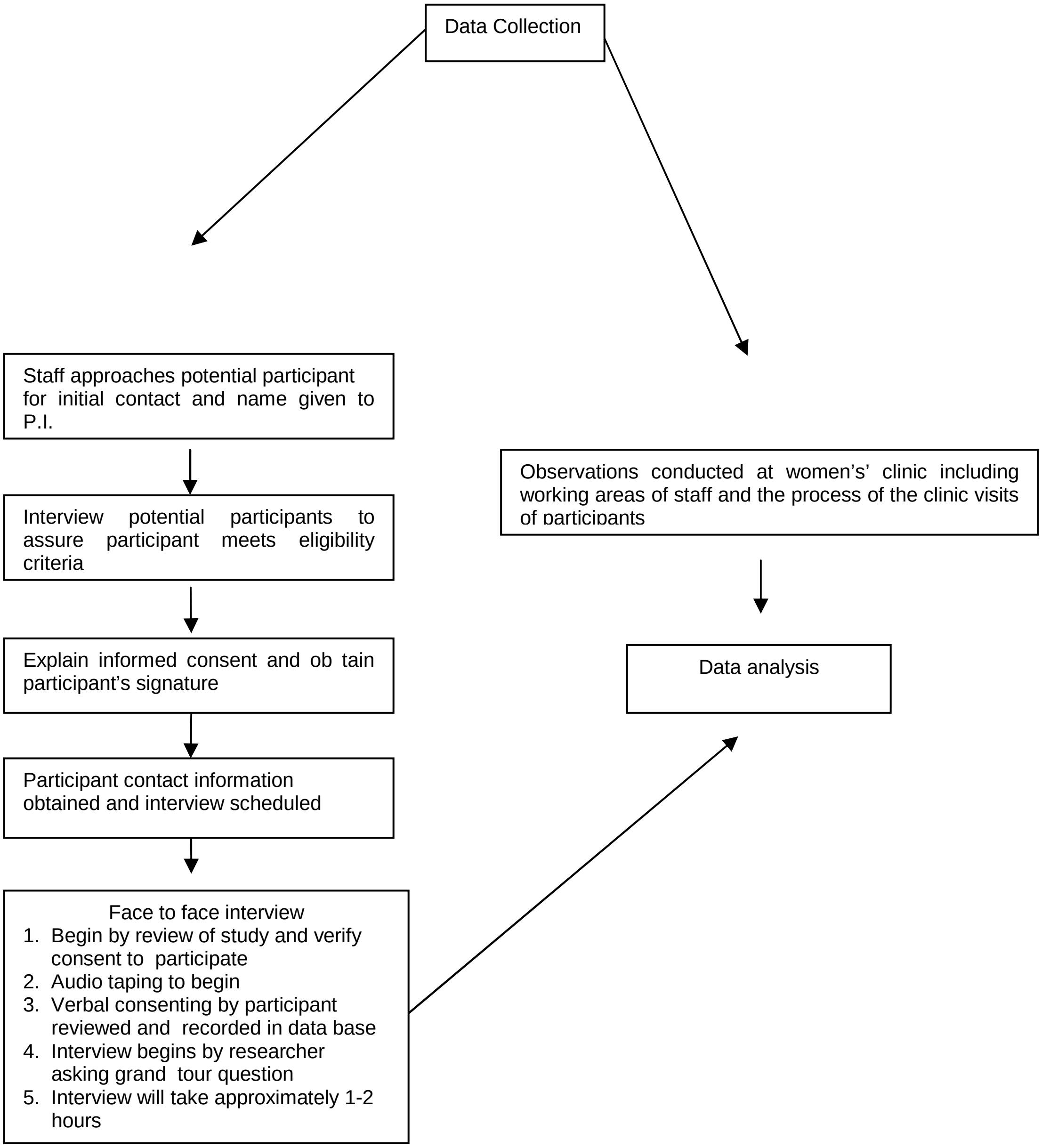


Figure 1. Data Collection Flow Sheet

Procedures

The staff was introduced to the study one week prior to the researcher’s on-site visit. This study initiation meeting gave the physicians an opportunity to identify potential participants early enough for the participants to be contacted by the researcher upon arrival and scheduled to be interviewed sometime during the site visit. The researcher met with the women’s clinic manager initially and was given an orientation to the clinic and the staff.

On the first day of the site visit, the women’s clinic coordinator and researcher decided where to post flyers in order to achieve the greatest visibility by women. A flyer was posted on the wall over the scale where all women were required to be weighed (Appendix G). One flyer was posted in the lobby on the wall over the water fountain. A number of flyers were placed at the sign in desk until the sample size was reached.

The same day, the researcher scheduled a study initiation meeting with the clinic nurses known as a “huddle”, and later, one on one meeting with physicians. Following the meetings, the researcher gave the flyers to all the providers and administrative staff in order to generate interest and invite the patients to participate. The women’s coordinator, physicians, and nursing staff identified potential participants during the site visit. Women self-referred and volunteered to participate either before or after their scheduled clinic appointment.

Most of the women who were invited to participate were scheduled for a clinic visit during the two weeks the researchers was on-site. The women were invited to participate while waiting to be seen by a provider. Providers were given the opportunity to compile a list of names of women for the researcher to contact and invited the women to participate. The majority of women were recruited prospectively, but two participants resulted from the list of names. The researcher was assigned an office and conducted the interviews and this arrangement gave the women an opportunity to enroll in the study at any time before or after their clinic visit. This was convenient for providers who wanted to participate because the researcher arrived one hour early before patients and accommodate providers during off tour of duty hours.

Once the researcher determined that the participant met the inclusion criteria, the researcher began each interview by distributing the VA participation in research brochure, which described the VA research process for all participants to read. The consent was given to each participants and the researcher reviewed the consent with the participant before their signatures were obtained. Secondly, the researcher entered the date and time the participant was consented into the database as per VA policy. A research progress note was completed prior to each interview. The progress note was designed to note the date and time the participant was consented. The purpose of the research note is to alert other researchers at the VA which patients are enrolled in what research study and prevented double enrollment. This was mandated by the VAR&D immediately following the consenting process. The private office included a personal computer in which the researcher could access the VA data base system and provided a locked cabinet where the consents and research records were stored for the duration of the site visit.

Two copies of both consents were made and copy of both consents was given to the participant and the originals and second consent copies remained in the research folder. The researcher gave the enlisted women participants verbal and written instructions about how to complete the pain diary. Next, the researcher instructed the women to write their return address in the return address section of the stamped envelope. Finally, the participants were instructed to mail the pain diary back to the researcher on the day that was circled on the pain log. The researcher made a notation in the folder and in her notes of the kind of $10 gift card the participant would like to have mailed to them. The copy of the consents, envelope, the pain diary, and the instructions were given to the women to take home with them.

The participants completed the demographic information sheet, the completed form was placed with the original, and one copy of both consents was stored in a locked cabinet. The research folder containing the originals and one copy of the picture/audio consent, the VA consent, and the demographic information of the women remained in the locked cabinet in the private office. The consents and the demographic information sheets remained in the office in a locked cabinet during the daytime and were hand carried to the VAR&D at the end of each day that interviews were conducted. The second week of the site visit, the women's clinic coordinator made arrangements with the charge nurse and assigned the researcher another vacant office of one nurse who was off duty during that second week. A total of fifteen enlisted women, two physicians, one women's clinic coordinator, and three staff nurses volunteered to participate and were interviewed. Follow-up telephone calls were made to the participants two weeks after the site visit as a reminder to mail the completed pain diaries back to the researcher. The health care providers were identified and consented in the same manner and received the gift card immediately after their interviews.

The researcher identified the nurse manager as the key informant even before the study was approved and before the site visit. The main role of the informant was to provide the researcher with aspects within the VA system that are unfamiliar to the researcher. The key informant was invaluable to the researcher are in that she provided an overview to the clinic operations, clinic hours, introductions to the staff, identification of the potential participants, assisted in recruiting participants, and established the researchers role while in the clinic. The manager assigned the nurse supervisor the role of assisting the researcher in the use of a private office while on-site. She had the authority to act on the manager's behalf if she was unavailable and assisted the researcher if questions arose and allowed the researcher access to printed pain and pain management information. A secondary role of the nurse manager and supervisor was to review and validate the setting descriptions and to translate military terminology and acronyms when the researcher needed clarification.

The VA nurse researcher served to facilitate the introductory meeting with the women's coordinator, several nurses, a physician, and a clinic supervisor who were invited to participate so they could provide the researcher with their own perceptions and beliefs about enlisted womens' chronic pain during the site visit to ensure rigor and to build confidence in the data collection procedures.

Rigor

Guba and Lincoln (1989) define the rigor of qualitative inquiry using credibility, transferability, and dependability. The credibility of this study was enhanced through the researcher's use of a field journal. The field journal provided the researcher the opportunity to write down reactions and thoughts about the interactions and processes the researcher encountered before the study commenced and after hours during data collection while off premise. The participants and key informants were periodically consulted and asked for their interpretations and input about the journal entries and analysis (Koch, 1993). The field journal was maintained prior to the data collection phase and included six sections: 1) gaining access, 2) experiences, 3) setting, 4) participants, 5) self awareness, 6) reflections and prejudices. The field journal included these six sections and began long before the data collection actually begins. This process was essential so the researcher was prepared for the data collection phase because the researcher would be fully engaged in the process of journaling so the entries provided rich, detailed writing for the analysis.

Transferability was enhanced through the contextual descriptions, which were written into existence by the researcher in the field journal. The contextual descriptions were detailed as a method for the researcher to transfer the results of this study to different contexts and make judgments about the suitability of the transfer. My own personal experiences in terms of professional background, personal history, cultural background, and identity were identified and clarified my biases and concerns. The data was formulated using my perceptions as a valuable component in the meaning making process (Sandowloski, 1989). Arguably, becoming aware of any disconnect between the incompleteness of evaluative measures and survey findings and the realities of practice was one of my motivations for conducting qualitative inquiry (Reman, 1986; Kock, 1993). My prejudices and biases along with my personal and professional experiences served as the verification process of my participation (Koch, 1993).

Dependability was captured through a decision trail (Sandowlowski, 1989). Authentication was achieved by corroborative documents and the original products were maintained which were created during this inquiry and resulted in an accounting of process and products used in data collection (Lincoln & Guba, 1985). The ethnography and the products of the process of the study constituted an inquiry audit (Koch, 1993).

Lincoln & Guba (1985) stressed a number of procedural approaches to improve validity and reliability of the findings. The first strategy I employed was to build trusting relationshps with the women's clinic staff and minimize my presence as a researcher on patient care and work flow. This allowed me an opportunity to interact with the staff in the hallways and in between patients. Discussions with staff were kept to a minimum out of respect for work duties. Therefore, informal discussions and interactions took place during breaks and off tour of duty hours.

Once the approval letters were distributed to the manager, I was immediatley identified as " one of us" and as a result, the staff nurses were agreeable to assist the researcher in scheduling the potential participants. This assistance proved to be invaluable because the nurse manager and the charge nurse together appropriated a vacant office for me to use during the site visit. This decision was seen by the staff as unobtrusive because this office was one of the nurses office who would be on vacation the week of the site visit. The researcher blended into the normal work flow and this leveling of the researcher proved another successful strategy that minimized my presence. More importantly, patients could easily move from their scheduled visit to the interview room without walking more than about 15 feet, which for some of the women was accomplished easily without adding to their pain severity. The researcher donned a lab coat that included her name and credentials embroidered over the pocket which was glanced at by participants sometime before each interview.

Findings and interpretations that were unclear were confirmed by the participants and during informal discussions and daily debriefing meetings with the nurse manager. These meetings provided an opportunity for the researcher to ask questions that were necessary because clarifications about interpretations from observations and commonly used language were not often understood by the researcher due her lack of knowledge about military language and meanings associated with everyday occurrences in military culture. The researcher verified information that was discussed with one staff member and with another member of the group so the data was subject to verification before interpretations could be considered valid.

The key informants were instrumental in introducing the researcher to military personnel and occurrences on many levels throughout the day and on several occasions later in the evening during holiday events. One example of an afterhour's event, the researcher was invited by a key informant to a holiday party at the spinal cord institute. The key informant, who was the nurse manager, was a member of an officer's wives organization "Helping Hands". Our role was to serve drinks to the military families of those wounded warriors who were patients in the facility. This event was celebrated by all levels of military personnel who were stationed at McDilll Air Force Base and members of the military officer's wives of active duty and retired military personnel. The key informant introduced me to many people normally off limits to civilians. I would have been excluded because this was strictly a military member's wives and personnel only holiday event. This limited access became clearer during the site visit. The researcher was limited to the women's clinic and the grounds of the facility. The researcher was required to buzz into the research building and most areas of the facility required card key which I was not given prior to or at any time after my arrival.

Another interesting fact was that I had not met the VA principle investigator in person. I had been corresponding via email and telephone during the course of gaining access. The researcher was scheduled to meet with the VA principle investigator on the last day of the site visit. This too, was a secure building and I would have been unable to access without authorization. There are many other examples of places at the facility I was unable to visit or access without a VA badge. The staff offered to either escort me or give me directions to where I wanted to visit throughout the site visit. On many occasions, the staff prefaced an answer to my request for directions with whether I would require access or an escort.

Taxonomies

Military acronyms and phrases that surfaced during the interviews necessitated the need to develop taxonomies. The researcher questioned unfamiliar words, their meanings, and interpretations with the staff during hallway discussions and oral accounts during the site visit in order to construct accuracy and confidence in the data. Any interpretations that were vague and clarified provided an opportunity to develop taxonomies about military customs, language, and meanings of unfamiliar words or events. The taxonomies developed include common language of service related terminology, military acronyms explaining branch of service rankings, and a legend of common reported and unreported practices experienced in the line of military duties.

Women used many of these military acronyms to describe their beliefs and attitudes about pain, the effects of pain, understanding about tolerating pain, and in the decision-making that constituted their individual pain management strategies including the point at which to seek care. The phrases about pain are common throughout the interviews and included phrases such as “grin and bear it”, broken, call out the weak, mission first, front street, under the microscope, making pain invisible, suck it up, deal with it, and calling attention to yourself. These phrases are defined throughout Chapter 4 with some exemplar quotes that clarify the meanings of these phrases and themes.

Map and Distance

During the interviews, almost all the women mentioned that time spent at the clinic was difficult to quantify. This question required the assistance of the researcher in that when asked to report the number of health related visits they had in the past two years, 33% of the women referred to their calendars. Secondly, the women insisted that I add the number while they counted the areas marked in day timers aloud. The number of health related visits included annual care, lab, diagnostic testing, routine well women visits and tests, physical therapy, pain clinic care, prosthetics, hearing testing, eye testing, mental health, emergency visits, hospitalizations, and other routine follow-up medical care. The campus measured approximately two long city blocks and walking from one end of campus to the other took the researcher about 10 minutes. Women were expected to come early so they could get a parking space, and this fact was mentioned in the interviews by most of the women.

For example, one woman in pain described her monthly visits to the women’s clinic. “We are not treated like everyone else who has pain”. If you are a patient at the pain clinic, then you get to come every three months for a urine test and your prescriptions can be mailed to you”. I have to come here every month and then walk to the pharmacy after my appointment which is off site”. The researcher accompanied this same participant on her walk to the pharmacy right after her interview. The pharmacy was located “off site” and patients often left their appointment and walked to the pharmacy right after their clinic appointment. Our walk took approximately 10 minutes and required us to walk along the main street on a designated walking path. I noticed that she was able to keep her stride even though she walks with a cane and verbalized to me that she was in constant pain. We walked up a small incline and I observed that she struggled some, but continued up the incline at the same pace as the rest of her walk. This walk to the offsite pharmacy is expected at almost all health care encounters if medications are ordered or in this case, re-ordered.

Ethical Considerations

This study was submitted to the VAR&D of the James A. Haley Veteran Hospital for initial review. Next, the VAR&D committee approval letter, protocol, and consent were submitted to The University of South Florida Institutional Review Board (IRB) for approval. The next approval required the research study approval letter to be submitted to The University of Texas at Arlington (IRB) to approve the host IRB for the student researcher and a letter to file was obtained. The compliance officer of the VAR&D obtained final approval once the full board IRB and VAR&D committee approval were obtained.

The researcher obtained authorization from the VA to conduct research and was scheduled for data base training on the first day of the site visit. After the training was completed, the researcher was given approval for data collection. The Institutional Review Board (IRB) is the body within this office that is responsible for the review and approval of the research protocol. The researcher began her original compliance training in January 2009 in anticipation of the lengthy IRB approval process.

Potential Risks

The potential risks were determined to be minimal as the participant and researcher will mutually agree upon the time of the interviews. The consenting process was conducted by the Co-PI, and therefore, I was able to ascertain both verbal and visual clues that the participant was uncomfortable prior to the consent being signed. One participant had a question about the statement in the consent about the potential risk for the provider care changing. The researcher clarified the language for the participant to understand and the participant proceeded with consenting. The process of volunteer consenting was conducted by the Co-P I in a private office prior to any data collection in order to maintain both confidentiality and privacy. Each participant understood what the study entailed and as a result, all twenty-one participants consented prior to scheduling an interview time.

Potential Benefits

There was no direct benefit for participation. The potential secondary benefit to these women and staff was that each participant would be given the opportunity to discuss perceptions and beliefs that are important to them in the chronic pain experience. The right to be heard provided an opportunity to empower women and provide staff with the opportunity to recognize the value of perceptions about pain and pain behaviors that influence health of enlisted women. The participants did receive a gift card of their choice as compensation for their time after all data was received for that participant.

Possible Adverse Events

Participants had the potential to experience psychological distress during the interview process, but no participant experienced any distress. The researcher was prepared to stop the audio taping and allow the participant to pause for a time and either proceed after the interruption or choose to discontinue the interview. The participant was prepared to talk with her health care provider for follow-up after the interview or be given telephone contact numbers or crisis intervention numbers depending on the nature and type of behavioral or verbal responses that might have been displayed by the participant during the interview. The researcher did not observe any incivility or a potential for violence and therefore, all the participant interviews were completed.

Data Analysis

Ethnography required the researcher to be an active participant in data collection and data analysis (Aamodt, 1982). Data was categorized into three categories: numbers of the site and setting including contextual data of the surrounding area and the history, data pertaining to the semi-structure interviews and pain diaries, and demographic data. The data of the site and setting included the numbers on the physical environment of the city of Tampa and its location in the state of Florida and the history of the region. The demographic data includes the sample characteristics of the participants including data from the pain diaries.

The demographic data was recorded in an Excel file and percentages were calculated to describe the sample characteristics of the enlisted women. The data was entered into the file immediately after the participant was interviewed using a consecutive numbering system. The demographic data was entered in the order the demographic questions were asked. The interviews were audio recorded. The transcriptions of each interview began in Tampa, FL., but continued upon my return to Texas due to money and time constraints. The audio tapes were listened to a second time and the transcripts were edited for accuracy.

A second qualitative researcher reviewed these second transcripts. The researchers separated the data into units of meaning codes using a line-by-line analysis (Ayres, Kavanaugh, & Knafl, 2003). The comparisons include contrasts across text to determine themes and sub themes. The researchers compared the data between individual accounts and comparisons of one whole against another whole account to identify overall patterns and meanings.

An iterative process of constant comparison was conducted using cycles of parts of the text and the entire text of both within case and across case comparisons (Ayres, Kavanaugh & Knafl, 2003). This technique is a form of content analysis used in qualitative research. Reflexive thinking occurred throughout the data analysis (Shin, Cho, & Kim, 2005). The participants were given a reminder call about the pain diary two weeks after the site visit. A gift card was mailed to participants after their pain diary was received. The pain diaries were analyzed as they were returned. Seven participants (50%) pain diaries were returned and analyzed in order to verify findings of real time pain levels and to increase rigor (Strauss & Corbin, 1998; Morse & Field, 1995).

Ethnography required the researcher to be part of the process of data collection and data analysis, which requires a focused intent at all times and simultaneously to remain fluid so not to assume any role classification (Junker, 1960). The social worlds of the participants were written into existence guided by the interviews, pain diaries, printed pain materials, and site visit data into themes, categories, codes and memory to produce the secondary narrative in addition to the original data (Mulkay, 1985).

Data analysis included content analysis in which the researcher began with the data and returned to the purpose statement repeatedly during the data analysis process. These abstractions about the behaviors that participants do versus what they say they do are revealed and coded in order to make sense of the data (Mulkay, 1985). The social depiction of the data is outlined in Chapter Four. During the data collection and analysis, there was a continual writing and reading of the notes compiled by the researcher before, during, and after clinic hours. This process allowed the researcher to become immersed in the data and for data collection and analysis to occur simultaneously. Informal meetings occurred frequently with the key informants to clarify observations and interpretations of the data. After multiple readings of the data, the findings of the chronic pain experiences of enlisted women were analyzed.

Summary

This ethnography illuminated the social and cultural aspects of the lives of enlisted women experiencing chronic pain. This chapter described the method, rationale, sample, gaining access, VA approval process, setting, data collection method, procedure, rigor, and ethical considerations. Semi-structured interviews were conducted on-site with fifteen enlisted women and six health care providers about pain and pain care and the findings are presented in Chapter 4.

This ethnography offered a glimpse of the enormity that military training and culture on the chronic pain experiences of enlisted women receiving care at one VA Women's Clinic in the Southeast United States. Military training and life provided a framework for these women in that their attitudes and beliefs about chronic pain and pain care are captured in their pain behaviors and pain care strategies. The "new middle" (Moss, 2000) provided evidence for what enlisted women in chronic pain perceived about their pain and pain care living life in the military and in some cases, civilian life.

CHAPTER 4

FINDINGS

The pain experiences of enlisted women constituted the overarching themes of Mission First, calling out the weak, customs & courtesies, pride, seeking care, stigma, guilt, pain management, decisions, and control. Direct quotes provide exemplars for the emergent themes. Definitions are included using the participants and providers own words. The sample characteristics of women participants are included in Table 4. The participant interviews, pain diaries, and printed materials about pain and pain management provided the data for the analysis.

Results

Sample

A convenience sample included 20 participants: 14 enlisted women, two physicians, three staff nurses, and one women's clinic coordinator. The enlisted women were between 28 to 59 years of age, with an average of 42 years of age. Exactly one-half of the women were married or partnered (50%). Most had children (67%). Twenty-one percent were employed either full-time or part-time outside the military. The majority of these women did not nor had not abused street drugs or alcohol (87%), and of those that did abuse, they did so in the past (18%). Almost one-half revealed they had a history of sexual abuse (43%) and 57% a history of mental illness that included posttraumatic stress disorder, depression, or both.

A total of 93% were disabled and 87% had a service related injury. One participant (7%) disclosed she was not disabled but was in the process of applying for disability. Women served in overlapping eras of military service and included Viet Nam (7%), Post Viet Nam (13%), Post Viet Nam and Desert Storm (7%), Desert Storm (40%), Desert Storm, OIF and OEF (20%), OIF, and OEF (7%), and OEF (7%). These women were taking from 1 to 45 prescribed and over the counter medications on a daily basis. The number of health related visits in the past several years ranged from 2 to 270. The number of pain sites ranged from 2 to 20 and represented the back, hip, knees, foot, head, colon, thigh, joints, shoulders, neck, hand, gut, wrist, jaw, stomach, elbow, and sinus.

Pain diaries

Seven (50%) pain diaries were returned and analyzed. Women reported a pain level that ranged between 3 and 10 on a daily basis. Almost all women reported that their pain intensity worsened at night. Pain was described as constant and women characterized their pain using words such as “achy, broken down, gnawing, stabbing, sharp, extreme, pressure, intense,” and pain is “burning with tingling”. Women described changes in mood as cranky, overwhelmed, irritating, and exhausted. Pain medications required on average between 1.5 to two hours until the medications provided relief. Women described the effects of their pain using such phrases such as “hid my pain all day”, “hit with a hammer”, “I can get my mind off it temporarily”, and “not happy”. Some women included journal entries in which they recorded hourly reports of their pain. One woman stated that she became more aware of the frequency of her headaches when she recorded every time she had a headache and the pain level of her headache in her pain diary.

Enlisted women described their pain using a myriad of pain descriptors. Their pain levels that they reported the weeks following their interviews were on average less than the pain levels they reported during their interviews. In fact, women reported pain level ranges between 7 and 10 during their interviews and ranges between 3 and 10 in their pain diaries. The pain diaries revealed that women continue to function despite pain levels between 3 and 10 and use a variety pain relief measures that included both pharmacologic and non-pharmacologic pain management strategies in order to do so.

The differences between pain levels could have resulted because women were asked in the interviews to recall their pain levels and the pain diary entries were recorded during real time pain events. Pain diaries provided enlisted women with knowledge about the effectiveness of their pain medications and insight about the length of time that it took for these medications to provide pain relief. Pain diaries would offer health care providers a way to assess the effectiveness of pain management strategies used by enlisted women over time in between heath visits. Secondly, the knowledge that pain diaries made available can be used to familiarize providers about other pain relief strategies that provided successful pain relief for enlisted women.

Table 4. Demographic Characteristics of Enlisted Women.

Demographics	Percent	Demographics	Percent
Age		**Illegal Drug Abuse now or in the past**	
20-39	36%	Yes	20%
40-49	28%	No	80%
50-59	36%	**Disabled**	
Ethnicity		Yes	93%
Caucasian	64%	No	7%
Puerto Rican	7%	**Service Related Injury**	
Black	21%	Yes	87%
Black & Native American	7%	No	13%
Era of Military Service		**Marital Status**	
Viet Nam	7%	Single	21%
Post Viet Nam	14%	Married or partner	50%
Post Viet Nam & Desert Storm	7%	Divorced	29%
Desert Storm	36%		
Desert Storm, OIF, OEF	21%	**Living Arrangements**	
OIF & OEF	7%	Spouse or partner	40%
OEF	7%	Child	20%
Branch		Parent or roomate	40%
Army	50%		
Air Force	14%	**Number of Children**	
Navy/Coast Guard	36%	0-1	64%
Rank		2-3	29%
E-3	14%	4-5	7%
E-4	36%	**Employment**	
E-5	29%	Full-time	14%
E-6	14%	Part-time	7%
E-7	7%	Unemployed	79%
Sexual Abuse			
Yes	43%		
No	57%		
Mental Illness Including depression, bipolar, schizophrenia, and PTSD			
Yes	57%		
No	43%		
Alcohol Abuse Now or in the past			
Yes	13%		
No	87%		

Themes of Enlisted Women

Mission First

Mission First means that the primary focus of the military is to instill in service members one goal: to prepare to fight America's wars. Mission First created for these enlisted women the idea that as a soldier, duty to report for unit training and activities required peak performances.

> When you are in combat, you have to be able to do what you are trained to do at the time you are supposed to do it.
>
> I've stood watch out in the cold, where I found some masking tape to wrap my fingers to keep the cold from coming through the gloves, which you are holding onto a metal gun, you know strapped on your shoulder, you can't go anywhere to get relief because, you are the only one out there in that little watch station.

Most women agreed that the Mission First was the foremost goal in each of the three branches of the United States Armed Services they represented. These women understood that Mission First superseded any individual personal needs including pain. When a soldier has pain, they ignore or block out the pain because there was nothing more important than the mission.

Military leadership uses Mission First as a crucial aspect of military training to prepare service members' for survival during wartime. A woman who recently returned from Afghanistan understood the meaning of mission first personally. She kept doing her job, her mission, even though she needed medical care.

> I was just in the mind frame of you just keep going. I came home with such a you don't have time to eat, you don't have time to sleep, and there are things that just need to be done. I was just in a mode of full force and nothing is going to slow me down. Finally, I fell a second time and that is when I felt the need [for care].

The centerpiece of military training required an understanding by members that there is above all else a commitment to the mission. A collective consciousness is described as one mind in which these women lived while serving their country.

The principle of Mission First was not unique to enlisted women. What was unique to women was that they believed that in order to succeed in the military, they felt constant internal pressure to be as good enough or better than the men, that served alongside them.

> When it is a woman, you are expected to be tough. For some reason, men are expected to be weak or something like [weak]. A woman is expected to be tough and to suck it up.

One woman, felt fear that if she confronted her unit Commander about where she was supposed to relieve herself while on a boat during her service in the Navy, she would be kicked out of the service.

> When we had to go out on a search and rescue or on a mission, we had three women at the location where I was at, so I had to use the bathroom in a laundry detergent bottle (laughing). I was with a whole bunch of guys. They didn't have that issue that I had and I really didn't want to bring it up because I didn't want to get kicked out.

Oftentimes, women described experiences where they were singled out and treated differently when they sought medical care than the men who sought care were treated.

> There was a male soldier that was sick according to him. There was nothing wrong with him, we all knew it. He was faking it; we all knew he was faking it because he wanted to get off duty. I was truly sick but yet he got a pass to the doctor. I didn't. I was told to suck it up.

Women believed in order to be accepted by their fellow soldiers', they needed to prove themselves.

The association of pain with weakness is unacceptable to the mission of the military. One woman described her chronic pain she experiences was a result of her military duties during her 15 month deployment.

> At first it was a little painful, just the initial couple of days getting past your muscles realizing that they are going to have to build to deal with that weight. After a few weeks of it, then after four or five weeks of wearing that gear I carried what they call cruiser weapons. So we would have to dissemble them,

> clean them move them around, carry bags of ice with all that gear on. Geared up you would have two bags of ice, one on each shoulder and I literally feel as I am walking that sometimes my rib cages were in contact with my pelvis. I think that I was unable to resist the injury that occurred which is now a degenerative disc disease and herniation in my disc.

Many women, however, were disappointed when they could not ignore their pain intensity any longer and articulated some strategies that they employed to keep their pain hidden from others. A women described the behaviors she displayed in order to mask her pain from other soldiers.

> Well I am still in the military, I am a reservist, and when there is military duty I feel though I have to literally made the pain invisible to those around me. I try to lay really low. Just smile, remain positive, and stay really, really busy with work, you know I take on tasks. Number one, a big smile and eye contact then they are not looking at my arm I am holding or flexing my hand and try to draw the attention away from the body parts that are aching or if I am leaning or trying to sit.

A woman understood that this was her reality while serving, but this behavior continued long after their military career ended.

> Like when I have an emergency going on [now], I just tend to go into that mode and I will block everything else out to do that.

Since serving, these women's chronic pain experiences are depicted in the construction of mission first in that the internal structures and understanding of the mission was seen through these women's pain care attitudes and behaviors. Women made choices about their pain and pain care in a limited number of ways, which were influenced by their military training. Women in pain believed that drawing attention away from their pain to avoid being labeled by superiors as weak. Women described their strategies such as distraction, staying busy with other lesser tasks, smiling, direct eye contact, and staying positive, which averted the attention away from the pain being observed by others.

Most of these women (78%) served in recent theaters of war and understood the mission first hand. Wartime heightened the principle of mission first in that, group members' performance is associated with fellow members' casualties. Almost all of these women described experiences that centered on the point in time that they learned the importance of the mission. One woman described how her superiors laughed in response to her acute pain when she sought medical care for her painful blisters on her feet during basic training. A reservist, who recently returned from Afghanistan, articulated that she ignored her torn tendons because she was in that mind set where she "blocked everything else out". For these women, mission first understanding was the initial, overriding, response that resulted from a painful event. Women therefore, regarded pain as temporary, which they believed they were required to overcome.

Calling Out the Weak

Calling out the weak is defined as a strategy used by the military leadership to identify mental, physical, and emotional limitations in soldiers and in turn, make decisions about the weak soldier. One example of a decision that was made was based on the time it took a soldier to complete the physical fitness requirements of his or her job. If the soldier performed the physical fitness requirements closer to the time limits, then the supervisor ordered the soldier to remedial physical fitness training. A woman described that the position and the military unit of service determined her work duties and physical requirement expectations. One woman described that performance standards had to be maintained.

> They kind of tell you suck it up. You pretty much go until it gets to the point where I had to do something [for the pain]. You have time limits you are suppose to complete stuff in and you get closer to those time limits and you don't meet those time limits but you have to run a ½ mile in so many minutes and you can't do it anymore. The people that are running your physical fitness, say you go to remedial [physical fitness training].

Others believed that the group member's successes required a unit that was fully functional and one woman in pain was considered a weak link in the unit. Therefore, women refrained from complaining about their pain so they would not be labeled by the leadership as a weak link. One woman described this idea.

> You are only as strong as your weakest link.

Another woman in pain refused to complain about pain because complaining would bring unwanted attention to her. She stated in her interview:

> Maybe it is self-imposed but you tend to not want to complain. You tend not to bring attention to what is happening so you try to downplay what the pain is or what level the pain is so you don't seem like you are either looking for attention or you know maybe it is not as bad as your saying because it is one of those things that is so I'd say [is] subjective. It is not like a broken arm where it is physical and everyone can see it.

She continued in the interview that she did not want to bring attention to the pain so she downplayed the severity of her pain level. She believed others perceived her pain behaviors as looking for attention or that others did not believe the level of her pain intensity. She continued that since her pain was subjective and others would agree her pain was not that bad, compared to a broken arm, which could be seen by everyone and therefore, justified.

Not surprisingly, active duty women believed that their ability to seek pain care was necessary only when the pain was so severe, that their level of performance in their duties were negatively affected and thus, other members work responsibilities or lives were impacted as a result. Pain was a signal that alerted women that they are in jeopardy of being considered by leadership as not being up to military standards. In fact, pain indicated to one women that she understood that pain was discouraged by military leadership and the consequences that resulted with painful conditions. A quote from this woman in the Air Force:

> [Pain] results in that you are made to feel like you are not a team player, because you can't deploy, you can't participate in flight walks, where like you

> walk the flight line and clean up trash and little things like that if you can't walk long periods of time you are made to feel like nothing. It is kind of discouraged.

Women cultivated behaviors of strength and these behaviors were encouraged by the leadership in order to be accepted as an integral member of unit culture. Thus, one woman believed that her pain was a result of the punishment that her body was expected to perform in the military.

> I think it [military] increased my chances of some joint pain and because of it, all the punishment your body takes on the commitment that you're expected to perform in the military.

Pain and pain behaviors are discouraged at the unit level because units competed among each other for recognition. A weak link was considered detrimental to the success of the unit and in turn, the military tradition had procedures in place for the weak to be identified. Thus, there is a custom among members that soldiers treated painful conditions by taking Motrin or to "just try to work though it" [pain].

> Well, the standard pill that was used for a headache is Motrin. So basically, when I was in the military I needed Motrin, but most of the time, I just tried to work through it. I am not one to go around complaining about pain.

> I used to treat pain with over the counter medications like Tylenol PM, Advil and my pain was ok. Then I noticed the pain started increasing and I still didn't really run to the doctor, I just increased the dosage.

Thus, pain initially was viewed as a condition that was temporary and women believed their mental and physical strength would overcome it. Women believed that they had a mental acumen and, were conditioned to push their bodies to perform at the level of expectations, which, were pre-determined by the leadership in order to succeed as a soldier. These standards were transparent to all members of the group and designed to ensure the unit's performance outcomes were lived up to in terms of the units' standards.

Customs and Courtesies

Customs and courtesies were defined as a set of written and unwritten rules and regulations that constituted the traditions, behaviors, customs, and beliefs in the military. An example illustrated womens' understandings of some customs and courtesies that women personally encountered as truisms. She described how she had a problem with customs and courtesies.

> I didn't want to listen to them, so I had a problem with the customs and courtesies sometimes. My decisions about seeking medical pain care came to that because I am going to do what makes sense, but you're telling me what to do. This is military culture.

Another described the unwritten custom of silence in the following quotation;

> It is that untold act that you just don't come out and say things and plus I was worried that umm it [pain] would harm my reputation for how much I had built up over the years.

One woman described that despite her injuries, she was required by her supervisors to return to her work duties. She stated she did not want to ask her supervisors for additional time off from work to recuperate because she knew her supervisors would not approve of her time off. She was convinced that taking additional time off would be detrimental to her military career.

> But then it was like, [she snaps her fingers] get them back to work, you know! They didn't do anything for my head injury, they didn't have the knowledge back then, plus, it was the Army, I mean you go back to work! I mean it was my first job and you know I didn't want to blow it.

Another woman stated that when she fell down 10 feet of stairs as duty cook, she broke her nose on the steel bulkhead and her supervisors recommended she report right back to work.

> I just hit the bulkhead going down to the bottom part of the ship and the next thing I knew I hit the steel bulkhead and broke my nose. It wasn't suggested that I take time off. I just went right back to work.

Customs and courtesies are one way that the military maintains order. Several women described these “untold rules” are prevalent in the military. One of these customs and courtesies was described as an act of silence. A woman described that you just don’t say certain things, remained silent, and did not ask her commanding officer how she would relieve herself on board ship. The main reason she gave for her silence was because she did not want to lose everything she had worked for up to that point.

Another women described the phrase to “do as I tell you” was pervasive and that she had a problem with this courtesy and therefore she had a problem with her supervisors. She stated that she did what made sense, not what they told her to do or not to do. She described in her interview how she made the decision to seek pain care despite the pressure from her supervisors not to do so. Later, in her interview, she stated she would be labeled a trouble maker and as not being a team player or worse being ostracized from the unit activities like flight walks, because of her pain.

Women learned early on that there are customs associated with when to seek pain care and what resulted if you sought care. Women believed that being a good soldier required a keen insight into how you are perceived by other members of the group and responded accordingly. All of these women described in their interviews that their experiences taught them that there are many well-known unwritten rules, which became ingrained in the minds of these women. A phrase used repeatedly by almost one-half of these women was “you just grin and bear it; that is the way it is in the military”. As a result of this custom, women discovered that self-care was the best way to treat acute pain in the military.

Women agreed that despite the fact that they were determined by others to be weak and a minority, that their individual military career accomplishments were a source of pride.

Pride

Pride was defined by women as being smart about their ability to perform their work duties despite routine exposure to hazards, extreme conditions, and in some cases harassment. Women describe their acumen as a source of pride. Women believe their physical prowess sustained them throughout their military careers. Despite exposure to extreme and hazardous conditions, women chronicle in detail examples of how they overcame adversity.

> But one supervisor that was just a machinist before the combined career fields couldn't certify: absolutely could not weld and really had an issue with a women that could, weld. I loved welding. I could tell he didn't like having a female in "his" shop.

Women believed they were talented and prided themselves in persevering until they choose not to continue. Fighting to overcome weakness was perceived by women as an obstacle to overcome. This belief became second nature to women and thus, when they were confronted with pain, and they responded to pain and used their training and engaged the enemy [pain] and "pushed through pain". This woman articulated her belief about women and pain.

> I think women tend to work through their pain; men tend to be big babies when pain is alive!

One woman described her pride and demanded that people who work at the VA know the kind of pain women experienced, but also that civilians be informed about the experiences and sacrifices made by women.

> I would like the results to be distributed so that not only the people here would know what military women experience and the kind of pain they experience, but people on the outside would know what we experience; I think that sometimes they don't and I think that they don't know what we go through as women and what we give up as women when we enter the military. I hope that it will give people the opportunity to know you know what we are experiencing and to understand as women who have served.

Another source of pride was that women were referred to by providers, who had cared for other male career military soldiers, as career soldiers. A provider commented to one woman that he recognized that she was career military by the condition of her body that had been subjected to the rigid physical therapy programs requirements. This example depicted this idea.

> A Naval doctor called my shoulders: old soldiers' shoulders" and he said he saw a lot of career military like me from the Army and Marines because of the rigid PT programs.

Women believed that they earn the right to be a proud member of the military when they exhibited behaviors that promulgated the embodiment of a good soldier.

Women who served do so for many reasons that are beyond civilian understanding. As gender integration continued in the military, women described that their service was often influenced by stressful aspects of military culture. An excellent example was described by one women related to her military career as a welder. She chronicled that her welding excellence drew to her quite a bit of harassment from her supervisor and from the other welders in her unit. This harassment resulted from the fact that the other male welders could not certify. She described the realization that her success as a welder was the source of pride for her and stated that she "loved welding" but was discriminated out of the military as a result of her welding excellence. She stated her chronic pain was correlated to her exposure to jackhammers and lifting heavy rods during her military welding career. A twenty-eight year old woman, who was disabled and walked with a cane, stated that she wanted civilians to know what women like her give up when they chose to serve.

Seeking Care

Pain intensity, pain duration, location of pain, powerful others, and consequences were the primary factors that motivated women to seek pain care. A painful condition for these women resulted in a primary set of pain beliefs. Women initially believed pain was temporary and almost all of these women believed that pain that lasts more than a couple of months, warranted medical care. These women relinquished the idea that pain is a warning mechanism and that they may have injured themselves, never occurred to these women until much later.

Pain intensity

Pain intensity was defined as a physiological dimension of pain also known as pain severity. Women described pain intensity using descriptive words and numeric pain levels. For example, enlisted women described pain as "debilitating, constant, consistent, humbling, miserable, and persistent". Women described their pain levels between seven and nine before they sought pain treatment. Pain intensity was likely to be, unbearable before women decided to seek care. When asked when she decided to seek pain care, a woman responded with the following quotations.

> I had made a second fall. I was falling, losing my balance, because I wasn't walking right because me knee was kind of I don't know the word they used but it was my knee caps were not in place; my knee caps would grind, and I was always limping a little bit and I fell on some ice. The first time I hit my head and I just didn't go anywhere for that you know. Here I had a bump on my head the second time.

> When I couldn't stand the pain anymore and states her pain level a 9 pushing a 10.

> So it took for the pain to be at a level and for almost to dictate activities before I went.

> Because I fell and the next day, as I walked into work and sat down, I realized my ankle hurt so bad I am not going to be able to go to the bathroom and I just couldn't stand up. I need to go to the emergency room and we are going to the VA. I tore all the tendons in both sides of my ankle.

> My pain had to be at a certain level for me to seek pain care. I guess especially being in the military. You don't want to be seen as not fulfilling your role or responsibility and stuff. So, I mean, you almost feel like you can't move actually during the pain in order to go through it [pain].

Therefore, pain intensity alone was not sufficient for women to seek medical care. One exception to seeking care was women who initially believed pain was associated with the aging process. This belief diluted the need to seek care.

> Some of it [pain] could be that I am just getting older and the weather seems to make it worse.

Pain duration

Pain duration was another one of the other primary reasons for seeking care. Pain duration was defined as the length of time that pain persisted. The longer the pain persists, the more likely women will seek care. If women believed that chronic pain resulted from injury, then this belief motivated woman to seek care, but not until a period of time passed. Coupled with this belief is the fact that their pain was not a temporary state and therefore, if both of these conditions presented, these women are seriously motivated to seek pain care. Several women described this belief and stated:

> I couldn't hold something, when it fell out of my hand or when I couldn't open a pop bottle but that was with the hands. But when I was walking, I didn't have a car and I was walking and then I couldn't take any steps [because] I had ripped a planter fascia so I couldn't step. [Pain] it wouldn't go away and a month went by and I thought I stepped on something and it was an embedded piece of glass or something. I decided to go to primary care.

> Every time I injured myself within two or three weeks, it is healed, done, over with. This [pain] tells me I messed something up.

Location of pain

Location of pain was defined as the site in the body where the pain was situated. The location of the pain motivated one woman to seek medical care. One woman sought care because she had pain and lost control of her bowels and as a result, she was so distressed she enlisted the assistance of medical providers.

> My thing is when I feel my colon contracting and causing pain, I know this is going to happen. I don't know when it is going to happen, so sometimes let's say I am in a conference and I am with people and I don't want to dart out of the room and be gone for 45 minutes or an hour, so I wait until the very last minute and then leave and up until that point I am sick, because I am trying really hard to stay as long as I can at whatever I am doing.

This woman's distress was so severe, that she sought medical intervention despite the fact that her highest pain level was only a six. Therefore, her pain, as a result of her unpredictable contractions in the colon motivated her to seek medical intervention for both the pain and the colon condition.

Powerful others

Powerful others influenced a womens' decision to seek care. Powerful others included supervisors, health care providers, and authority figures. Supervisors acted upon pain behaviors that are revealed because up until that point in time, these women have camouflaged pain behaviors. Women recognized when they arrived at this point in time, "grinning and bearing it" had become fatiguing. As women exhausted themselves from hiding their pain, they become distressed and at that moment, they decided to give into their pain and displayed pain behaviors, powerful others questioned the legitimacy of their pain.

> That it [pain] hurts and you know sometimes people don't believe you that it hurts but you wish that people were inside for some reason, you have to be in a wheelchair, with your face all pale and almost dying. They [others] don't understand it is not like that.
>
> They [women] don't feel believed. They feel if you are not in a wheelchair or missing a leg, you are not taken seriously. It is taken like you can suck it up and keep walking.

An example was given from a woman who described a health care provider's behaviors as skeptical about her seeking pain relief:

> There is a presumption from what you present outwardly is how you are judged, unfortunately. I have gone to see other doctors within the VA and when you go it is like what you said, maybe the way you walk in or from what they see, they are almost skeptical about the level of pain and you almost feel like you [are] having to justify why you need treatment.

Because they tolerated pain at high levels, women were discouraged that they were not believed once pain behaviors were displayed in the presence of others. Other women stated that providers questioned the legitimacy her pain.

> I think the biggest complain I have is just trying for people to understand that you are in pain.
>
> When I say I have pain to the providers, the biggest challenge with pain for you because MRI's and X-Rays and all the facts don't necessarily add up.

Compounded with this disbelief, the military leadership misunderstood that these young women were affected with chronic pain. In fact, the supervisors of these young women believed that the women did not want to be in the military. She described that the reason that her supervisor did not believe that she could have suffered from her severe back pain was simply because of her age. As she described her back pain and the perceptions of her supervisors about her pain that, she experienced in her early twenties:

> You know people always think, to be so young, well my thing was when I started having back pain, a lot of people did not believe me in the military. My superiors, and that is why I had conflicts with them; to be that young and have back problems on the scale I was speaking of, a lot of people thought I did not want to be in the military.

Women, whose pain behaviors were noticeable by powerful others, were ordered to seek care. One woman suffered from undiagnosed Lyme disease that progressed until she was ordered to seek care because she complained of pain, became psychotic, and exhibited life-threatening symptoms. These symptoms were observed by her supervisors who determined that the symptoms warranted immediate medical intervention.

> I was throwing up blood, my face got paralyzed, and my joints were paralyzed. They [supervisors] said I was dying and they didn't know what it was. They were the ones that had me sent to the hospital because I was not functioning anymore.

One woman was ordered to seek medical intervention for her pain by a civilian walking program director.

> I started a walking program at the mall and I remember telling the one that was in charge about it and it was staring to hurt all the way down my ankle, all the way down, and they're like "Well you are not going to be able to continue on with this walking program until you get seen" and then I went to pain management and got injections and stuff.

Family members and significant others recognized pain in women long before they recognized pain in themselves. An exemplar of this occurrence one woman described is in the following quotation:

> Sometimes [family] even before I recognize it [pain]. [Pain] changes the way I walk, or my reaction to things, whatever, just thinking "I can still get it!" or I can still do it! [In addition], they [family] says Darn stop! So I think others can recognize it faster than I do.

Consequences

Chronic pain has severe negative consequences for these women because when women enlisted, the physical requirements of the military are easily met and maintained.

I was in very good shape in my 30's, I did just fine. I never had pain on a regular basis.

After any impairment occurred that resulted in pain, women described that their physical maintenance and exercise programs are impacted. Eventually, women described that their military careers and work duties were negatively impacted.

> [A women sought pain care] when it became unbearable, that is when I decided, needed to seek help from the military physicians and doctors. I didn't do it right away because actually having pain is or being what the Air Force calls "broken" is something that is frowned upon because you are made to feel you are just a weight on the units shoulders, like you are not a team player.

Since women experienced negative consequences from pain and pain behaviors in the military, women refrained from seeking care until their civilian work duties were negatively affected. In fact, one woman described a feeling of safety when she experienced tolerance from her supervisors and peers at work about her pain behaviors and her pain care. She stated:

> Yeah, I keep a cane, a therapy cane. I keep it at my desk, whereas in the military environment, I do not feel comfortable showing them I am treating pain. So I would not bring that with me there, I would just deal with it whereas sitting at my desk (civilian work), I just put the TNS unit patches and they know it! They know it!

The ultimate goal for women who sought care was for the providers to document that a women's chronic pain was real and pain care was justified. Therefore, providers tell women that their chronic pain was definitive and disability at some level is unavoidable. All but one of these women (93%) was determined to be disabled and (87%) suffered a service related disability at the times of these interviews. One of the women was in the process of applying for disability. Once pain and disability occur, discharge from service was inevitable. Justification that their pain was real vindicated women, who believed their status, is already tenuous at best, although a documented service related injury is the best outcome they can hope.

Because women believed there are serious consequences for pain care while serving, they presented at the women's clinic seeking pain care after several life-changing decisions were made: they decided not to re-enlist or to retire. Most of these women described that their decision to seek pain care outside of military service was necessary because women are terrified of the long-term effects that occurred if pain care was delayed any longer.

At this time, a second transient set of women's' beliefs about pain and pain care emerged; chronic pain is serious and they have contributed to their chronic pain by delaying adequate treatments. All women in this sample across five eras of military service held these beliefs. Thus, women learned when to seek pain care from other women and pain care behaviors were transferred from one generation of enlisted women to the next. Once these women transition to civilian life, they believe that pain afforded them the ability to seek out pain care without the serious consequences they have experienced in the military.

Stigma

Stigma was defined as a mark of shame and stigma surrounding pain was pronounced in the military. Stigma results when pain behavior is labeled by the majority groups as a weakness and a soldier is determined to be unfit for duty. In fact, permanent dismissal was likely if the leadership uncovered that a member was observed exhibiting behaviors that are considered weak by other members as a result of pain. Women with chronic pain conditions who aspired to long-term military careers described these decisions as a disappointment. One woman described her disappointment and stated:

> I was kind of disappointed. I was thinking of making it a career. I thought I didn't have options then, but it turned out I did, which was working here at the VA. But at the time, it was a sense of loss.

One woman described her loss of duty stations because of her chronic pain and her loss because she still misses the military.

> In fact, I lost duty stations because I was to go to Maine and the doctor was like no it is too cold up there you will never survive up there because your back would just be in pain. So they took away those orders and sent me to Florida instead. It was either snow or sunshine and I got the sunshine! I kind of miss it.

Because women feared the negative consequences of pain and pain care from others, they delayed seeking care. One woman described her military drill weekend preparation as "whatever I had to do to put on my military gear so to speak" and diligently works to mask the pain from others. She described her mental anguish that precipitated her decision of calling in sick before a scheduled drill weekend because of a broken foot. Her direct quote;

> I had made another fall actually, and I broke my left foot and so in October this year, I just called in and said I couldn't make it because I just couldn't mask that; I couldn't mask a foot boot on my leg.

Unfortunately, because women refrained from seeking timely care, the likelihood of chronicity was compounded. Women believed they were culpable because of their actions surrounding painful events and sought care when they relinquished the fact.

Women are doubly at risk of stigma if they belong to both groups that are considered weak by the majority military culture, which included being a women and being a minority. Thirty-six percent of these women self-identified as a minority women. Women believed that despite the negative consequences of pain, most agreed that persistent and intense pain was worth the risk of serious consequences. This is simply because injury and pain is viewed by the military leadership as a long-term liability and resulted in stigma.

Women agreed that behaviors that are seen as weak included pain behaviors. Women with chronic pain described examples of stigma that related to labels by other members for displaying pain behaviors and seeking pain care. One woman described when she discovered her pain would be chronic, that she would be labeled as “broken”. This woman described how she observed members with pain being excluded from the unit activities. This woman stated she would be stigmatized as not being a team player. Therefore, women strived to blend into their unit’s culture in common ways. One way to blend in is to not call attention to yourself so women ignored pain.

Women in the military learned early on that to show pain, was detrimental to their military careers. Several women described that their chronic pain derailed their aspirations for a long-term military career. Women described a sense of loss or disappointment when they were told that they lost duty stations or when they were encouraged not to re-enlist because of pain.

Guilt

Guilt was a characteristic that women defined as a sense of responsibility for their actions because their actions resulted in injury and therefore, affected the lives of others. One woman described the guilt she felt because of serious injuries that occurred from falling sixty-eight feet from a waterfall while in basic training.

> So I was ready to go to jump school and that was all taken away and everybody and I got stuck in the same duty station. You just feel guilty and you are like God, I am not up to standards anymore. My doctors told me forget jump school. [They said] "You'll never be jumping out of any planes". It was really devastating.

When these women came to awareness that their military training and exposure contributed to their chronic pain, they resorted to blaming themselves.

> I think some of the things I did when I was in the service made my joints worse. I did a lot of industrial work; working with jackhammers, a lot of tools that I was using were set up for a larger frame, for men.

After serving, one woman stated that job duties and her decision to not seek pain care soon enough while in the military resulted in the extent of her daily chronic pain. She believed that if she sought pain care earlier, her pain intensity and frequency would be decreased.

> I believe it has a lot to do with the things I did in the military and it is probably the stage it is because I didn't take care of it as well or as soon. Probably if I got intervention earlier, it wouldn't be at the stage it is now so where it is [now]. [My pain] is constant. It is every day I live with pain.

A quote described her guilt that she felt about working in the military contributed to her chronic pain:

> I think if I hadn't been in the military, I probably wouldn't be at this degree of pain. [While] in the Navy, you had steel backs that you walked on with the movement of the ship. [As an enlisted soldier] you slept in this little they called "coffin racks" because the space you had was about that size of just enough for you to sit in there and if you lie on your side, your shoulder would touch the top.

Almost all of the women blamed themselves because they believed that they are somehow responsible for their current pain conditions. Women agreed that they made a decision at some point while serving to push their body beyond its limitations in order to meet the physical requirement standards. Thus, women described an internal conflict in which they vacillated between ignoring pain and the point of time where they desired to seek care. Therefore, pain was inadequately treated for long periods of time during which women avoided making the decision to seek care. Women described that their actions affected other soldiers and when women was injured or hurt, they described feelings of culpability because their actions negatively impacted fellow members.

Pain Management

Pain management was defined as self-care measures, including medications, and other medical and non-medical treatments. As time passed, women realized persistent pain was serious. Before women reached this understanding, they employed a plethora of self-care measures. Self-care measures that women describe included distraction, ice, heating pads, hot baths, showers, prayer, lying down, rest, quiet, medications, massage, acupuncture, darkness, isolation, pool therapy, exercises, deep breathing, physical therapy, medications, relaxation, and minimizing activities. Blocking out pain was the most commonly used strategy used by women to control pain. In fact, another strategy that women used in blocking out pain was distraction. Distraction was commonly coupled with fatigue which women were able to successfully ignore pain. These strategies were well known to be taught by the military in basic training.

> I have not been pain free for 21/2 years. I think I have been mentally blocking it during military conditioning.
>
> Like when an emergency is going on, I just tend to go into that mode and I will block everything else out.

Some women internalized pain.

> Yeah, I just do it: grin and bear it through the pain.

Later in the interview, this same women described that her husband's pain and pain management compelled her to put her pain aside and she stated:

> I don't know other than the fact because my husband is always in so much pain, I feel like his pain, because his pain, I mean [that] he is already on morphine and a whole lot of IV narcotics and mine has to be put on the side. Mine [pain] gets ignored because his pain is so much worse. That is the way my whole life has been. I have to internalize it [pain], grin and bear it.

Another strategy one women described was prayer, which is evident in this example:

> I just have to deal with it and pray about it; that is all and most of the time it is really like a mind thing for me when I pray to God I say "thy will be done" so I believe he [God] is doing it and he [God] is making it [pain] less than it was a few minutes ago.

Occasionally, women delayed administering pain medications because of how the side effects of their medications affected their work performance. Therefore, women decided not to medicate themselves while at work.

> I have tried taking my medication the way I am supposed to, [but] I say crazy things to people on the phone. I catch myself, offering rides to places, where we don't provide.

These side effects of pain medications interfered with some women's ability to control pain. One woman describes her daily decisions about the pain level she tolerated because of the side effects of medicines she was prescribed. She described her medications as feeling drugged all the time.

> I wake up in the morning and you know just deciding what, how much you can tolerate to get through what you need to do before you have to resort to taking medication and feeling drugged up all the time.

Respecting their limitations was one of the easiest concepts for these women to understand mentally, but the most difficult for them to practice. Women were aware that because of their pain, they modified their work duties or responsibilities because not doing so would result in increasing pain intensity. Women articulated that alternating one activity for another is a strategy to cope with increased pain.

> If I am sitting and it hurts, I get up and go in the kitchen, and do something, dishes or something for a bit. I was telling my doctor [about this] a couple of weeks ago. I can't even watch a program all the way through, because I can't sit there and concentrate. I don't watch movies anymore because I can't sit there and concentrate on movies.

Another woman described modifying her mopping procedures while cleaning her floors.

> I found out when I was trying to do cleaning, and I would get on the knee and I couldn't do it. I had to get up again because I couldn't bend down and mop. Now I have to mop the floor and settle for not getting the corners.

Surprisingly, for other women, pain does not limit activity, but the amount of time one women engaged in a certain activity such as knitting.

> Some things I just do differently than I use to do. Sometimes I stop doing things. One example is knitting. I can stop knitting when I want to and decrease the pain.

As women come to terms with their chronic pain, and make decisions about how to cope with chronic pain long term, women adapt, and a new normal emerges. Women describe a new normal as one in which they modify their activities either by eliminating them or reducing the amount of time they spend on the activity. One direct quote best captures this idea.

> It is like a normal part of your [life]. You just get use to it. Like if, you had a chair in the middle of your hallway. Every day you just start and soon, you wouldn't even know the chair was there because you are just used to walking around it. So it is there and you adjust your lifestyle you know, no walking. When I baby-sat my daughter's dog, he needed to be walked, and that was a challenge. I took him to the dog park.

Therefore, women believe they have decisions to be made about living the rest of their lives with chronic pain.

Decisions

Pain became routine for these women and decisions needed to be made about the long-term repercussions that were unknown because of their pain. Women made decisions about living with chronic pain that include dealing with fears of the unknown. Often, this fear was articulated by these women and the following statements exemplify the fear. One women is frightened because of her chronic pain began in her twenties.

> It also scares me because I am so young that I have to think about how I am going to feel when I am forty and I'm fifty and if I live long enough seventies and eighties.

Women were concerned about whether or not they would be able to have children. One woman in her early thirties was contemplating whether she should have children.

> I have yet to have children. I don't know if I will have a child. That is something I have to think about. If I have kids, will I be able to play with that child? So, I don't know if I will be able to play games with my kids so it is something that I think about but I really don't harp on it because I really don't know if I want to have kids.

Another woman in the Navy injured her back at an early age and was re-assigned duties by her superiors while serving on a ship as a firefighter.

> I had to switch what I was doing because I could no longer go up and down like that, so they put me on something where you know, I still had to carry equipment, but it was less a task on my back, but being on a ship you have to be able to do.

The same women realized that her chronic pain influenced her decision not to reenlist.

> When I went to retire, they said I could stay two more years, but I knew my body wouldn't be able but I would have stayed if I could have.

One woman decided to establish her selection criteria in buying her new home because of her chronic pain.

> I have chosen a place that has tile, so that eliminated the vacuum cleaner. The mop is a heck of a lot lighter than vacuum cleaners are so it had to be a one-story house instead of a two-story house because I don't want to have to deal with stairs. So I look at ways to get around aggravating the pain.

Since chronic pain was diagnosed early in life, women wanted to know what they can expect from chronic pain long term. Thirty-six percent of the women who were interviewed were under the age of forty. Women were fearful of whether or not they could have children and if so, could they care for their children if their pain condition worsened. Other women described that chronic pain influenced her decisions about what characteristics she wanted in her home, which she knew, would reduce the type of activities that she knew increased her pain intensity. She decided that tile floors and single story home would be ideal because she would not have to climb stairs and vacuum carpets, which she knows, increased her pain intensity.

Control

Control was defined as the degree that women believe they have power over their pain including strategies to control pain intensity. Some women believed they did not have much control over their pain. One woman stated that she learned early at home that her needs were less important than family responsibilities. Her pain got ignored because her husband's pain management took precedence over her own pain and linked her early home life and married life to her ability to control her pain.

> Mine [pain] has to be put on the side. Mine gets ignored because his [husband] pain is so much worse and that is the way my whole life has been. My parents were the same way "Oh your fine" you just go back to work, keep doing what you are doing.

One woman believed her family did not understand her pain and therefore, she managed her pain but believed she could better manage if she was alone.

> I think that if I were alone, I think I could control my pain a lot, but when you have [pain], it is like I said before, people around you, they really don't understand you. I really don't think that it is that they don't care, but I think they worry and they worry about you just sitting around.

These women believed they had little control over her pain because they relied on medications and eliminated activities that made their pain worse.

> I don't feel I have a lot of control over it [pain]. I have medication for it and I do take the medication, [but] I worry about being addicted to the medication. I feel like I can't live without the medication so it is challenging.
>
> I can't control it. I can't control it without meds, and when it really gets so bad, I take a med and then they don't last.
>
> Well it seems that everything I do strains where the pain is makes it worse. So I don't do grocery shopping unless my husband can go with me to carry the heavy things and I can't do laundry, so really what I do to control it in any sense is to avoid anything that is going to make it more difficult. That is the only ability I have to control it.

One woman stated that she has no ability to control her pain at all, and another was unsure if she had control over her pain.

Some women believed in their ability to control their pain and stated that they used breathing exercises. Simultaneously, women determined what level of pain they were willing to tolerate before they administered medications and what pain level was normal for them to function. This woman described this idea.

> I watch what I do. I make sure I take ibuprofen, but I only use narcotic medication only whenever the pain increases from a five, because at this point, on a scale of one to ten, five is normal for me.

Once the pain reached a pre-determined level, one woman administered pain medications once her pain escalated to that level. This was her strategy to control her pain.

> I know I can [control my pain] to a degree by what I do. Today there is less control because of weather. On a better day, I have more control because of the amount I do and don't do.

Some women eliminated certain activities that caused pain altogether.

> Doing what I do, I feel I can control my pain pretty well. But it limits what I do.

> I still have a hard time with seeing that it is daily all the time. I keep hoping for a day with relief. I keep procrastinating a lot of things to do including a stack of mail, bills. It is getting really frustrating because I never would stop having control or structure in my life of making sure their done timely and now I push things off because I am procrastinating and thinking there will be a better day that I will actually have less pain and I can finish these tasks.

The truth is that 20% of these women were taking opiods on a regular basis for pain. When asked about the ability to control pain, several women responded.

> Well, they give me a muscle relaxer [and] that helps a lot. Naprosyn, which is an anti-inflammatory and oxycodone, helps.
> A lot of morphine. It doesn't really help, [but] it just takes the edge off.

One woman stated she had self-awareness and believed that nurses and doctors cannot fully understand her pain without her awareness and her full participation in her own care.

She stated the following quotation:

> My self-awareness, no offense to any doctor or any nurses, unless you are living in that person's skin, I don't think you ever have 100% grasp. I was there day one. I will be there in the end.

A woman unfortunately, believed men received better pain management than women in the VA system, and therefore have more control over their pain. For example, "there is something wrong with the VA when men get better treatment than the women do".

A woman responded to her pain with a fierce sense of humor. A quotation about how she controls her pain depicted this essence of humor.

> Beer and ibuprofen; Ibuprofen is for the pain and beer is the relaxing part

Pain control varied among women and therefore, women agreed that there was no one consistent pain control strategy seen by these women as effective. Women described that the most common strategy used by women to control their pain was a combination of treatments. Women agreed that weather, age, stressors, family responsibilities, work duties, and their beliefs and attitudes about pain defined their chronic pain experiences. Women described unbearable pain levels by the time they were seen by providers. Pain control was seen by almost one-half of these women reported that their pain was within their control, but the other half reported that they either did not have any control, had very little control, or no control over their pain. Oftentimes, women described their control over their pain was dictated by their activities.

Themes of Health Care Providers

All of the health care providers that were interviewed were female. Thirty-three percent of the providers were Black, 33% were Hispanic, one was Indian, and one was Caucasian. Health care provider's interviews provided the data for the emergent themes; pain is complex, deteriorating potential, seeking care, pain management, and communication. Direct quotes provide exemplars for the emergent themes. Definitions are included using the providers own words. Printed pain materials were reviewed and summarized.

Pain is complex

Providers agreed that women who presented in the clinic with complaints of pain required pain assessment in the following domains: physical and psychological.

Physical

Providers described many pain behaviors in enlisted women in pain. Almost all of the providers described the following pain behaviors they have observed while women entered treatment rooms.

> They appear impaired. They walk slowly, they have some sort of apparatus, either a cane or a walker. They move slowly, gingerly, [and] when they are sitting, their slow to sit, especially with back pain and or they seem uncomfortable. While sitting they have to shift their position often to alleviate the pain they are experiencing. Sometimes it is obvious, by looking at them. They are reserved in their movement, in how they bend, and how they move, [such as] free movement, range of motion, and motion is limited.
>
> I observed women cry and grimace, their facial expression. They exhibit discomfort, agony, anger, and say, “doctor I’m hurting, you have got to do something”.

Providers described that at times women who presented with pain displayed no pain behaviors. One provider exemplifies this by her quotation.

> Pain can be invisible in that typical pain behaviors are absent.

One provider articulated that there is a relationship between the physical limitations imposed by pain and depression that she has observed in women.

> Often they come in with symptoms of depression mostly related to the physical limitations imposed by the pain.

Psychological

Providers understood that women who presented with physical symptoms of pain, may also had mental illnesses, such as depression. A provider stated in her interview that women were not always able to recognize that their depression was directly associated with their chronic pain. She is quoted in her interview.

> Sometimes if the patient’s depression is severe and deep you know they won’t recognize that they went into the depression because of the chronic pain.

One provider described that women presented with co-morbidities. She stated, “like co-morbidities together and we have to figure out what is what; (PTSD) has a lot of effect on women with chronic pain”. Because providers understood that women can often have comorbidities associated with their chronic pain, direct questions about co morbidities needed to be asked in order that co morbidities could be ruled out.

> I will ask them in direct questions. Is there any stress that has caused you [concern] or I will ask them why you are depressed?

Providers described this line of questioning using phrases such as to “dig it out” and “probe” while interviewing women. She continued that women with pain who experienced military sexual trauma or civilian sexual abuse often presented with somatic complaints.

> If they worked in the army where they have sustained injuries they come in with with chronic pain, you know, chronic injuries, lost limb, things like that. But some patients [have experienced] military sexual trauma, and sexuallly abused patients they come up with all kinds of somatic complaints, fibromyalgia and we really have to dig it out.

Somatic complaints have no recognized physical cause. A provider was alerted when a women presented with somatic complaints, endometriosis, chronic pelvic pain, or fibromyalgia, that co-occuring conditions must be ruled out. A provider’s direct quote exemplifies this idea.

> They will say “Oh yeah I am suffering with endometriosis or chronic pelvic pain” and especially, if they have gynecological problems they don’t come out and say that. Sometimes, they come with the depression or other somatic symptoms.

Providers articulated that somatic complaints that are associated with chronic pain and affected womens’ activities of daily living, their ability to attend school, and “everything”. This provider believed the following:

> It affects them a lot. The patients can go into depression and can have somatic complaints, and it can affect their ADL’s, school, everything. It affects them a lot.

She believed that a trigger often accompanied somatic complaints which in turn motivated women to seek medical care. A trigger was defined as a precipitaing event in which the psychological stress or fear that resulted from the stressor, was unrelieved by the womens’ self-care measures and the women sought out a provider for help. Some example of triggers that providers described included civilain sexual asault or domestic abuse. These occurances were real events which caused undue stress in women with chronic pain. Although providers are skilled in their probative questioning, providers described that they were surprised when a woman disclosed one of these triggers while seeking care for chronic pain.

> Sometimes it is hidden. I have been really surprised and I don't know what is was. I had a couple of patients who sort of surprised me and I have been doing this for a while, and I don't know why I was surprised, but I had people say to me, "You know I haven't told you this, I didn't feel comfortable bringing this up".
>
> I have been taught you have pain, you just live with it, you know, just work through it, and grin and bear it". But I want to tell you what is going on in my life and I am trying to remember what it was back to the point where they wanted to disclose that to me.

Deteriorating potential

Several providers stated that if a woman's performance was negatively affected by chronic pain, she sought out medical intervention in order to improve her performance. For example, if a woman is unable to dress herself as quickly as in the past, she sees herself as limited and wants to talk to a provider about what her options are for pain. Providers agreed that woman's typical activities of daily living are impacted and women are concerned about the limitations on the activities that pain imposed.

> The veterans who talks about their pain, explain to me that they are not able to do their activities of daily living as much as they would like to. Some of the common themes women are concerned about is that they can't get dressed as well, or it takes them longer to get dresses or even change, or taking care of household chores.
>
> Depending on the pain, level I am sure, the chronic pain will limit their physical activity to a certain extent. I imagine that many of these women are used to dealing with pain to a certain extent and often work through it; however, on some level they are aware of the limitations pain imposes.

A nurse stated that pain limited income potential and therefore, impacted other family members if a woman was a breadwinner.

> First, they think they cannot be really fully [live up to their] potential. [Pain] limits them to take care of family, job wise, if they are the only ones making their money, income at home.

Seeking Care

Providers articulated that military training and culture directed a women's decision to seek pain care. A provider articulated this understanding about women who presented in the clinic with pain in this quotation.

> They [military] do have where you go on sick call, but again, it is like you are put on Front Street if you complain about something. It is like I witnessed, what I experienced myself, like when you say you have menstrual cramps or it could be more than just menstrual cramps and something else is going on and again they just treat with Tylenol, Advil, just off the top just to get you back out.

Providers understand that the enlisted women's beliefs and attitudes about pain and pain care are a result of their training to accomplish the mission.. A nurse states, "I think it is a mindset because it is out of basic training it is taught to you. Accomplish the mission".

Providers gave examples which confirmed that when women employed pain care strategies and the strategies failed, they realized they needed assistance. Providers articulated that women seek assistance because they have no one else to help them with household duties.

> They often have to have help; ask for help, and sometime there is no one else available to do that and they are finding themselves and getting behind with taking care of the bills, taking care of house cleaning chores.

Several providers suggested that she was asked for documentation for chronic pain so that supervisors would modify a women's' work duties.

> The thing is for veterans is if they are employed, sometime they are asking for me to document their limitations for work purposes because they may have a job that is very physically demanding and they find that they can't do it or it get to where they can't keep up with work demands that they used to before. Sometimes is bearing conflict because the supervisor wants them to do the same amount or more, and their ability to keep up just isn't there.

Providers agreed that their role as a women provider was to be supportive of women who presented with chronic pain who sought care. Providers discerned that the presenting symptomology varied among women and self-reports of pain determined that women are in fact, the experts.

> I think it is a combination; first of all it is what you believe, it could be how you were taught, how can relate to it, you know. You might be a pain doctor but you don't have chronic pain so you are going by what they tell you what is subjective so unless you are in those shoes, you know, you can't pin point it.

Pain Management

Since pain is known as the 5th vital sign in the VA system of care, pain was assessed at every health encounter. One provider described the pain initiative was implemented only recently, but determined that pain is now assessed routinely.

> Because there is a VA pain initiative, providers assessed pain routinely at the clinic. One provider stated, "[Pain as the 5th vital sign] It has only been the buzz word in the past few years".

> We have a very good background guidelines here, you know that chronic pain treatment in the VA system and we have pain templetes to follow. It [pain] is easy to diagnose and once it is diagnosed, easy to treat if you follow the steps. We have consultation, pharmacy, pain clinics, and we do have another clinic in primary care.

Providers have a heightened awareness of pain and pain assessment because pain assessment is now required by providers at every health care encounter. Nurses however, believed chronic pain is difficult to manage because mental illnesses and sexual traumas are known to accompany pain conditions. Providers suggested pain manifested as a cover for these deeper concerns such as sexual trauma, mental illness, and domestic abuse.

> Honestly, I think that people that come in that say they have chronic pain a lot of times, I think it is a mask for something else.

Communication

Providers believed that communication was essential for effective pain assessment and management. Several providers stated the importance of communication in pain management.

> I think it is important to communicating clearly, what is the patients' desire and for me to indicate to them some of the things medically that are definitely a no no. A good provider relationship is required for successful pain management.

Providers believed that effective communication was necessary in order to builds trust between the provider and the patient. Providers believed that probative questioning is a vital component in establishing rapport and building trust in order for successful pain treatment to be assigned. A provider stated that her questioning is effective when a women behaved stoically. A physician stated that a women who is stoic, can be unpredictable and often surprised the providers when some disclosure occured. She described the following conversation with a women.

> I think that's when we hit an issue talk with folks who are very much together, very stoic. I will say are you having thoughts about hurting yourself or are you feeling hopeless? I know if there is more that a two second pause, there is something going on. and it is shocking [when] the disclosures that come forth. I can't even put into words, because some people are they don't know how to describe emotions, and so they are afraid, about something that they have no idea how to express, how to control, and want to be disconnected from feeling that way.

The providers, who discussed career adjustments, lifestyle changes, and goal setting, improved their clients' quality of life domains. As in this, direct quote:

> For instance, working in construction, they are lifting seventy, eighty pounds, beams, or rods, and have multiple disc herniations and have had surgery and have the failure of all medical treatments. It time to have a discussion to say, hey it is time to look into a career change.

Female providers believed that as a women, they are empathetic and the clinic environment is warm and different from the primary care clinic.

> The way we treat the patient, much different than compared to the primary care clinic where they treat in-patients. They feel homey because we are all women providers here and they can communicate with providers much better. That is what my patients tell me.

Another provider stated she has observed differences in pain behaviors and pain management between military men and women with pain.

> I have floated to other male dominated clinics and they either just accept what they get; and they don't really keep harping on it. If they got something they just use it and they deal with it.

Patient Resources on Pain and Pain Care

The search for patient pain resources was conducted using data from two sources. The researcher scrutinized ten patient brochures located in the brochure display in the lobby of the women's clinic. This examination resulted in no brochures related to pain or pain care information for patients. The researcher questioned these findings with the nurse manager and several nurses. The nurses informed the researcher that patient information related to pain conditions was available in a file drawer in one of the nurses' office. An informal discussion commenced with this nurse before the researcher was allowed to examine the file drawer where the brochures were kept.

Four brochures were collected and examined: pain during intercourse, disorders of the vulva, urinary tract infection, and urinary incontinence. Although these brochures were not specific to pain and pain care, the brochures were tailored for typical pain conditions of women, and more importantly, the pain conditions common to women seen at the clinic. Nurse's were encouraged to identify patient resources and obtaining these resources was based on several criteria: an informal verbal account of patient requests and staff nurses requests for condition specific information of women's who were seen in the clinic in the past. The nurse manager encouraged the staff to make recommendations about what information materials patients' requested and what materials the nurses would like to have. The nurses were consistent among themselves to remind the researcher that every patient encounter includes a pain assessment and more importantly, the results of this vital sign is verified by the providers and included in the evaluation and treatment.

Pain Resources

The Veterans Health Administration (VHA) has a centralized, accessible, and complete web site for both internal and external pain management resources. This web site is located on the VA intranet and is accessible to any VA employee or Without Compensation appointee [VHA] Pain Management Home, 2009). The web site is designed for VA clinicians, administrators, and researchers.

The web site is organized into three sections: Veterans Health Administration (VHA) Directive on Pain Management, VA Pain management listserv, upcoming events, and eight links: CII prescriptions-best practice commentary, cognitive behavioral therapist guide and patient workbook, patient safety alerts, VA opioid web course, VA methadone dosing and safety information paper, VA fentanyl patch transdermal patch dosing and safety information paper, pain and primary care presentation, assistance with pain management, a collaborative intervention for pain and depression in primary care presentation, and VA/DOD clinical practice guidelines: management of opioid therapy for chronic pain (VHA Pain Management Home, 2009).

The VHA Directive provides the framework for policy and procedures to augment pain management consistent with the National Pain Management Strategy throughout the VHA system. VHA Directive on Pain Management-2009-052

Purpose

The overarching goal of the VHA Directive is the early recognition of acute and continual pain in inpatient and outpatient settings.

Background

The VHA Directive outlines policy and procedures to improve pain management system wide in accordance with the National Pain Management Strategy and national pain management standards of care ([VHA] Directive 2009-053). The VHA National Pain Management Strategy was established in 1998 and the latest revision has been revised in 2009, which remains current through 2014.

Components

The pain management directive employs a stepped-care model of pain management in primary care settings. The hallmark of this approach is to provide seamless and effective treatment approaches to acute conditions and chronic disease that are likely to exist for more than 90 days or longer. The stepped-care model includes three steps as a strategy of care: primary care, secondary consultation, and tertiary interdisciplinary care (VHA directive 2009-053). Quality of life and the bio-psycho-social model of care are recent additions to the 2009 directive that were not inclusive in the 2004 version as necessary components that influence illness and disability in pain care and chronic illness.

Objectives

The primary goal of the VHA National Pain Management Strategy is to institute a seamless biopsychosocial strategy for the timely and accurate assessment of pain across the VA system of care (VHA directive 2009-053). The (VHA) National Pain Management Program Office is the governing body responsible for policy development, coordination, oversight, and monitoring of the National Pain Management Strategy. The individuals responsible for the oversight of pain management system wide at James A. Haley Hospital include the Veterans Integrated Service Network director, the Veterans Integrated Service Network point of contact, and the facility director.

Veterans Integrated Service Network (VISN)

This oversight and implementation of care will be the responsibility of the Veterans Integrated Service Network (VISN) Director whose is responsible for establishing and ensuring that the current pain management practices are consistent with the VHA pain management directive.

Veterans Integrated Service Network Point of Contact (VISN POC)

The Veterans Integrated Service Network Point of Contact (VISN POC) is a licensed expert in pain medicine or pain management and reports directly to the VISN. This individual is responsible to ensure the proper pain management standards are implemented and to establish contact to National Pain Management Program Office from the field.

Facility Director

The facility director works in closely with the Chief of Staff and the Associate Director for Patient Care Nursing Services to ensure the stepped model and the standards of pain care are in place and in practice. The quick links include best practices and workbook and are tailored for the clinician to ensure the standards of pain care are accessible and readily available.

List Serve

The list serve is an internal communication resource for keeping current of pain management issues system wide. This venue provides to practitioners and researchers resources and ideas about pain management relevant to veterans

National Pain Management Teleconference Call

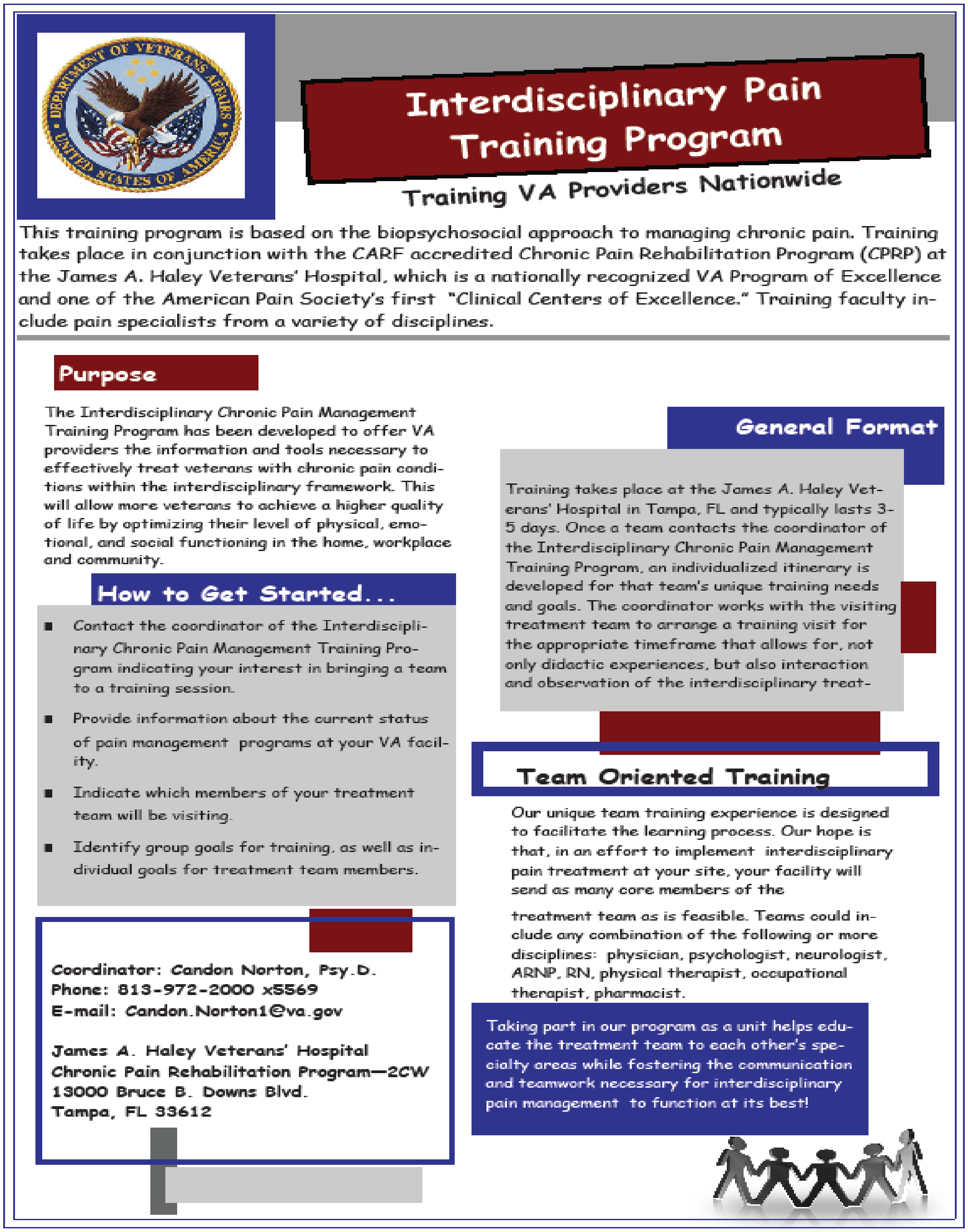
A series of contemporary issues about pain and pain management are discussed and archived for later use by all VA employees. These teleconferences can be downloaded in presentation form for later viewing and are easily accessible via the VA intranet.

Links

There are treatment resources in the form of eight links that are accessible via the VHA Pain Management Web Site and include the following: CII prescriptions-best practice commentary, cognitive behavioral therapist guide and patient workbook, patient safety alerts, VA opioid web course, VA methadone dosing and safety information paper , VA fentanyl patch transdermal patch dosing and safety information paper, pain and primary care presentation, assistance with pain management: a collaborative intervention for pain and depression in primary care presentation, and VA/Department of Defense (DOD) clinical practice guidelines: management of opioid therapy for chronic pain.

VHA Pain Management Education Programs

There is an interdisciplinary chronic pain management-training program at the James A. Haley VA Hospital by the chronic pain rehabilitation program (Figure 3.) This training is available to any VA team of providers nationally, offers the education, and tools to necessary to successfully treat veterans with chronic pain.



Interdisciplinary Pain Training Program

Training VA Providers Nationwide

This training program is based on the biopsychosocial approach to managing chronic pain. Training takes place in conjunction with the CARF accredited Chronic Pain Rehabilitation Program (CPRP) at the James A. Haley Veterans' Hospital, which is a nationally recognized VA Program of Excellence and one of the American Pain Society's first "Clinical Centers of Excellence." Training faculty include pain specialists from a variety of disciplines.

Purpose

The Interdisciplinary Chronic Pain Management Training Program has been developed to offer VA providers the information and tools necessary to effectively treat veterans with chronic pain conditions within the interdisciplinary framework. This will allow more veterans to achieve a higher quality of life by optimizing their level of physical, emotional, and social functioning in the home, workplace and community.

How to Get Started...

- Contact the coordinator of the Interdisciplinary Chronic Pain Management Training Program indicating your interest in bringing a team to a training session.
- Provide information about the current status of pain management programs at your VA facility.
- Indicate which members of your treatment team will be visiting.
- Identify group goals for training, as well as individual goals for treatment team members.

Coordinator: Candon Norton, Psy.D.
Phone: 813-972-2000 x5569
E-mail: Candon.Norton1@va.gov

James A. Haley Veterans' Hospital
Chronic Pain Rehabilitation Program—2CW
13000 Bruce B. Downs Blvd.
Tampa, FL 33612

General Format

Training takes place at the James A. Haley Veterans' Hospital in Tampa, FL and typically lasts 3-5 days. Once a team contacts the coordinator of the Interdisciplinary Chronic Pain Management Training Program, an individualized itinerary is developed for that team's unique training needs and goals. The coordinator works with the visiting treatment team to arrange a training visit for the appropriate timeframe that allows for, not only didactic experiences, but also interaction and observation of the interdisciplinary treat-

Team Oriented Training

Our unique team training experience is designed to facilitate the learning process. Our hope is that, in an effort to implement interdisciplinary pain treatment at your site, your facility will send as many core members of the treatment team as is feasible. Teams could include any combination of the following or more disciplines: physician, psychologist, neurologist, ARNP, RN, physical therapist, occupational therapist, pharmacist.

Taking part in our program as a unit helps educate the treatment team to each other's specialty areas while fostering the communication and teamwork necessary for interdisciplinary pain management to function at its best!

Figure 2. Interdisciplinary Pain Training Program

Chronic Pain Primer

A chronic pain primer provides a comprehensive on-line resource about chronic pain (VHA Pain Management Home; Chronic Pain Primer, 2007). Besides clinical resources, there are assessment resources unique to the VA that are accessible via the intranet and include: assessment resources, pain measures, treatment resources, clinical practice guidelines, and links to other resources. The clinical practice guidelines include both Veterans Administration/Department of Defense practice guidelines and Agency for Healthcare Research and Quality guidelines to provide consistent quality pain care throughout the VA system. Pain as the “5th vital sign” has been adopted by the VHA and this comprehensive strategy to integrate pain assessment and management for all veterans at all point of contact. Clinicians can access the pain as the 5th vital sign tool kit via the intranet.

Pain as the “5th Vital Sign”

Pain as the 5th vital sign tool kit is a comprehensive resource for all VA staff to familiarize themselves with pain assessment and basic terminology that exemplifies the standard of pain care set forth in the VHA Directive on Pain Management. The VHA has adopted current standards of pain care that include: “pain as the 5th vital sign “; routine assessment of the non-communicative patient and a consensus statement that provides additional guidelines for pain screening for those who do not communicate well; clinical reminders to ensure the documentation and reassessment of pain. Pain assessment and reassessment is routine when assessing any patient in the VA system of care and clinical reminders act as tools to assist the clinicians to assess pain. These electronic reminder tools are accessible once they are developed internally and incorporated into the VA data base medical record system (Figure 4).

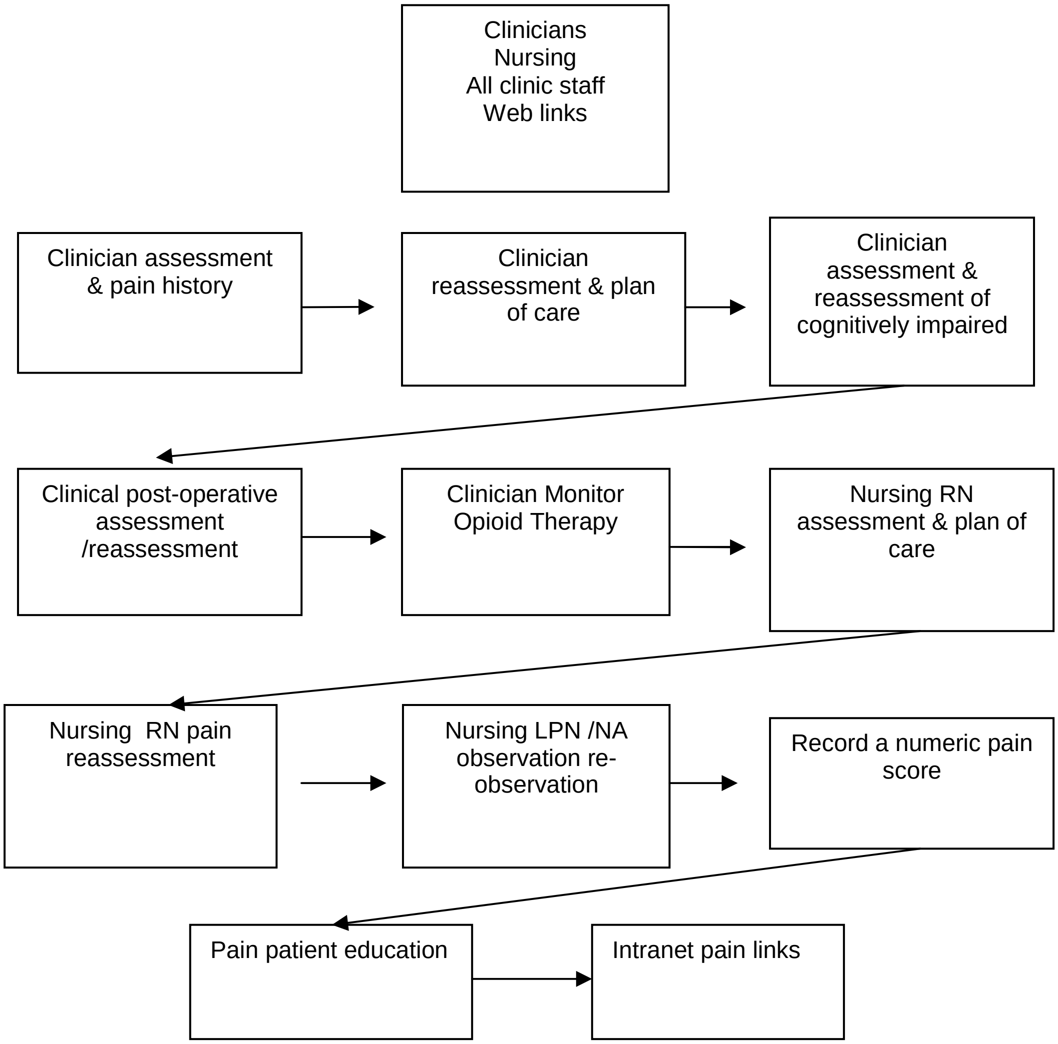


Figure 3. Clinical Reminder Placement Flow Sheet.

Pain management is a high priority in the VHA and more importantly, at the James A. Haley VA Hospital. In order to meet the agency for health care quality, research, and VA/DOD pain standards, surpluses of pain materials were plentiful for providers. Despite the prolific resources available to providers, there was limited information about pain and pain care for patients at the women's clinic.

Summary

Chronic pain was a commonly treated medical condition in enlisted women who presented at the Tampa Veterans Hospital Women's Clinic. Themes of enlisted women included Mission First, calling out the weak, customs and courtesies, pride, seeking care, stigma, guilt, pain management, decisions, and control. Mission First, calling out the weak, customs and courtesies, and stigma were a result of military training and life. Because of their exposure to life in the military, enlisted women developed two sets of pain beliefs. The primary set included the beliefs that pain was temporary and women were determined to overcome pain conditions. Because pain was associated with weakness, women treated pain using self-care measures such as over the counter medications, heat, massage, cold, topical creams, ignoring, or blocking out pain, and distraction. As time passed, persistent pain impacted function, and enlisted a second set of pain beliefs.

The second set of pain beliefs was that women believed persistent and severe pain was associated with injury. Secondly, when pain was severe and persisted, women concluded that their self-care measures were inadequate. Pain behaviors that occurred with severe, persistent, pain were associated with not only injury, but also that pain required medical care. Coupled with deteriorating function, women were determined to improve their function. Therefore, women sought medical care after they surveyed pain intensity, pain duration, location of pain, powerful others, and consequences.

When a women's pain was incapacitating, persistent, and affected function pain became difficult to mask. However, if pain interfered with a bodily function and at the same time prevented a woman from masking her pain, some women became distressed, and their distress motivated them to seek care. When women presented with complaints of pain, they described providers as uncaring if they dismissed a women's self-reports of pain. Women described that providers associated higher pain levels with physical findings and that if physical findings were absent, a provider dismissed a women's higher pain levels, which affected pain care.

Provider themes included pain is complex, deteriorating potential, seeking care, pain management, and communication. Providers understood that women who presented with chronic pain were complex and a thorough physical and psychological assessment was required before providers prescribed pain treatments. Providers evaluated women for not only chronic pain, but also mental illnesses, sexual traumas, and life stressors and believed that treatment for co morbid conditions was necessary in order for women to feel better. Providers determined that a change in function was the most significant factor that motivated women to seek pain care. Providers were cognizant that women were unaware of co morbidities that accompanied chronic pain. Providers articulated that women refrained from discussing their feelings about sexual trauma and sexual assault and disclosure was unpredictable and often occurred once they trusted a provider. Women simply wanted pain relief so they could improve their function.

Providers believed that they demonstrated caring behaviors such as empathy and believed women's self-reports of chronic pain even without physical findings. Women agreed that their providers were caring and exhibited the type of listening and interviewing skills that women described as caring behaviors. Providers were well aware that enlisted women appreciated that they were women providers because as women, they understood the unique concerns of women and more importantly, enlisted women. Providers understood that women trusted them because they listened to women and were experienced with the unique chronic pain concerns of enlisted women.

There were differences in chronic pain care education identified between the providers and the enlisted women. Providers had an inordinate amount of on-line pain management education materials, but these materials were tailored for the health care professionals and researchers and inaccessible to women. Providers did not mention that pain management education was either important nor did any of the providers suggest that they educated women chronic pain patients about pain and pain management during their appointments times.

Women stated that they were unaware of pain management principles and that there was little if any discussion about alternative pain treatments for chronic pain at the clinic. Women offered that they would like to have a venue for on-line discussions with other women chronic pain patients. Women agreed that they would listen to DVDs and read printed pain materials about pain and pain management. One idea offered by women was to provide a DVD player and printed pain education materials in the waiting area so they could educate themselves about their pain conditions and options for pain care. The waiting area would be an ideal place that for women to talk, watch videos, and read pain management materials while waiting to be seen by providers.

CHAPTER 5

DISCUSSION

The findings from this ethnography provided strong evidence that military training and culture has an influence in the chronic pain experiences of enlisted women. The results showed enlisted women's pain and pain care manifested as Mission First, calling out the weak, customs & courtesies, pride, seeking care, stigma, guilt, pain management, decisions, and control. The results from providers resulted in pain is complex, seeking care, deteriorating potential, pain management, and communication. The themes from both women and providers presented the rationale for the interpretations discussed in this chapter.

Interpretation

Women believed that there were consequences to being viewed as weak and women feared these consequences. Hoge, et al. (2004) found that among U.S. soldiers in Iraq and Afghanistan, who scored above the cutoffs for depression, anxiety, and PTSD, only 38% to 45% of those indicated an interest in professional help. The main concerns for not looking for help included being perceived as weak, being singled out by leadership, and fellow members would lose confidence in them as soldiers. Women, who responded to pain and pain care by complaining or seeking care, were determined by their superiors to be weak. A woman who sought pain care was associated with challenging the military culture and was at risk for being ostracized by those who strongly identify with the culture (Applegate, 2003). Conforming to this reality is necessary to not only survival, but to the success of these women as soldiers.

Culture is determined to play a significant role in the pain experience and involves sociocultural, behavioral, affective, and cognitive dimensions (Bates, Edwards, Anderson, 1994; de Wit, van Dam, Litjens, Abu-Saad, 2001; Skevington, 1998; & Twycross, 1994; Zborowski, 1952). Women agreed that military culture influenced their pain behaviors and all agreed they learned about pain and pain care from observing other soldiers in pain and determined which pain behaviors elicited what affects (Hama, 2001; Harper, 2006). Women in this study reported many forms of harassment and discrimination when trying to cope with chronic pain.

The social domain of the biopsychosocial model included activities of daily living, environmental stressors, interpersonal relationships, social expectations, cultural factors, insurance and access to care, social support, previous treatment history, and work history. Military culture affected enlisted womens' perceptions and understandings of pain and pain care and in turn, affected the way that these women interacted with family, employees, superiors, and providers. Since many of the social components are known to influence chronic pain experiences, military culture had such a profound effect on enlisted womens' pain behaviors and pain care in that these perceptions followed them into civilian life.

The United States Armed Forces is an example of a social organization. As a social organization, research has demonstrated that, despite legislation preventing discrimination in social organizations, discrimination continues in the United States military (Stoever, Schmaling, Gutierrez, Fonseca, & Blume, 2007). Antecol and Cobb (2008) reported that military personnel perceived more racial harassment if they are members of a minority group. These authors identified three types of harassment encounters: offensive behaviors, threatening behaviors, and career-related behaviors. A majority of women in this study reported offensive behaviors and career-related harassment behaviors consistent with two of the three harassing behaviors outlined in Antecol and Cobb's study, which were associated indirectly with their status as women and their pain and pain care (Table 5).

Table 5. Racially Harassing Behaviors Reported by Enlisted Women

Offensive behaviors reported by women	Career-related behaviors reported by women
Uncomfortable, hostile looks	Lost duty stations
Condescending statements or looks	Discriminated out of the military
Sexual abuse	Excluded by peers from social activities
Not included in activity	Held to a higher standard that others
	Last evaluation held unjustified comments
	Punished when others were not

Pain behaviors and pain care were dictated by the culture in the military because women learned that they have entered into a culture where they were a minority group and as a result, were at risk of harassment and discrimination. Women described these incidents in a manner that suggested that these occurrences directly impacted their decisions about pain and whether or not to seek pain care.

Antecol and Cobb (2008) reported that victims of military harassment reported sadness and depression (24%), a loss of trust in both supervisors (36%), and in co-workers (37%), stress, fear, and anxiety (33%), and low self-esteem (13%). A little over one-half of the women (57%) in this study reported depression. Thus, all of these women responded to acute pain episodes, by ignoring or blocking out their pain. McCaffrey (1999) reported that acute pain conditions, if treated inadequately, resulted in chronic pain conditions and disability. Because women refrained from seeking adequate acute pain care, they repudiated themselves and believed they were responsible for their chronic pain conditions. Women believed that the punishment that their bodies were exposed was a direct result of the commitment that they had made as women who serve.

Thomson and Nielson (2006) reported that military women were embarrassed to discuss “female issues” at the command level. One woman described a situation in which she described feeling frightened of being “kicked out of the military” if she asked her commanding officer how she would relieve herself while serving on board ship so she decided not to ask. She decided to do what the men did and used a detergent bottle. In addition, she refused to relieve herself for up to eight hours while on board the ship because she did not want to use the detergent bottle. She is not only plagued with chronic colon pain and diarrhea, but as a result, is frightened to be in an enclosed space without a bathroom.

Once women decided to seek medical care, women stated that their providers offered additional pain relief measures and referred them for evaluation and care. Women all agreed that they had taken anti-inflammatory medications on a regular basis, which they described as a pain management strategy in which they averted acute pain. Women identified twenty-five coping strategies. These myriad of pain coping strategies was consistent with the literature (Hoffman & Tarzian, 2001; Miaskowski, 1999). However, women ignored pain and delayed treatments, which corresponded to coping behaviors of men (Unruh, 1996).

Pain Management

Sherwood, Adams-McNeill, Starck, Nieto, and Thompson (2000) reported that some patients believed that pain was inevitable and needs to be tolerated. Women believed that pain related to aging was inevitable and therefore needed to be tolerated. Women concurred that because they tolerated high pain levels between 7 and 10 in their interviews and between 3 and 10 in their pain diaries that they were surprised when providers discounted their high pain levels. In fact, in the APF (2006) pain survey, 70 % of veterans reported their daily chronic pain intensity between 7 and 10.

The way an individual characterizes pain influences an individuals’ attitudes about pain (Sherwood, Adams-McNeill, Starck, Nieto, & Thompson, 2000). One of the reasons women gave for deciding on how much pain they tolerated, was because of the side effects of pain medications. Women believed that “just deciding what and how much you can tolerate” was a daily decision that had to be made. A woman described the level of pain she tolerated because she wanted to avoid the feeling of being drugged up all the time. Another reason was because taking medications interfered with work duties. Some women stated the pain medications made them forgetful so they limited their doses and frequency. Consistent with the literature, patients administer fewer medications than prescribed (Taylor, Ferrell, Grant, & Cheney, 1993).

Almost all of these women increased their behavioral activities such as household duties and leisure activities to block out pain, which was consistent with the literature (Jensen, Turner, Romano, & Lawler, 1994). Most women articulated an exact time interval before they have to lie down or sit down to relieve their pain because the increased activity levels contributed to increased pain. A woman's decisions about her life were made because of her insight into what activities resulted in increased pain intensity and the time that the pain intensity decreased after she stopped the activity.

Control

The literature has shown that beliefs about the ability to control pain predicted adjustment to chronic pain (Jensen, Turner, Romano, & Lawler, 1994). Women varied as to whether or not they could control their pain. Some women who could control their pain verbalized that they engaged in deep breathing and limited their activities. These women articulated the precise period of time that it took for their pain to increase and the time that it took for their pain to decrease once they stopped the activity. All of these women stated that their pain intensity varied with the weather.

Women who could control their pain monitored many of their daily activities and assigned pain levels to the activities based on length of time it took for pain levels to increase and the time once they stopped the activity, for their pain to dissipate. These same women decided the type of activity and the time period that they engaged in the activity prior to the start of the activity. Women engaged in activities they normally would refrain when the pain intensity was “worth it”. A women described one example that she attended a basketball game despite the pain intensity from sitting because she enjoyed a good basketball game and would suffer the consequences of her actions later.

One belief linked to coping and adjustment is locus of control. There are two types of locus of control: internal and external. Internal locus of control was defined as the belief that circumstances are internally controlled whereas external locus of control included beliefs that circumstances hinged on God, luck, fate, or others (Rotter, 1966). Individuals inclined toward an internal locus of control rated pain as less severe and employed more active coping strategies than those with an external locus of control who relied on passive, medically driven, coping strategies (Buckelew, et al., 1990: Crisson & Keefe, 1988).

In a study conducted by The Department of Veteran Affairs Health Services and Development Services (HSR&D) Evidence Synthesis Pilot Program (2007), evidence supported that Black veterans with chronic pain scored higher on two loci of control subscales: solicitude and prayer/hoping than white veterans. These behaviors are consistent with an external locus of control. Although this study did not measure locus of control scores of women, minority women reported less control over pain or little control over pain than white women did.

Unfortunately, almost one-half of these women believed they had little or no control over their pain. Twenty percent of these women who cannot control their pain were taking opiates for pain. Of those taking opiates, 50% reported sexual abuse and one or more mental illnesses which have implications for treatment. One reason that these women likely relinquished control occurred over their pain could have occurred from a combination of a military sexual assault and or mental illness diagnosis as a result of their lives in the military. However, since the researcher did not measure locus of control scores, locus of control scores could not be provided and therefore, women determined their perceived control. Women determined control over her pain using several criteria: control over her pain at the time of her diagnosis and her control after at the time of the interviews. Thus, perceived control varied as a function of time.

Chronic pain researchers demonstrated ethnically diverse individuals with an internal locus of control had better coping and adjusted to chronic pain conditions than those with an external locus of control (Bates & Rankin-Hill, 1994). These authors offered that an individual's locus of control can be altered and an internal locus of control can offer an improved sense of control over pain and an improvement in an individual's quality of life. Pain management education materials were all but absent at the women's clinic. Sherwood, Adams-McNeill, Starck, Nieto, & Thompson (2000) 75% of survey participants were not educated about pain management by providers which decrease patient satisfaction with their pain management. One way to alter locus of control to internal is educating women about pain management in order to improve control over pain.

Women and Their Providers

Pain research demonstrated that pain is a multi-dimensional experience and rarely an isolated event (Kerssens, Verhaak, Bartelds, Sorbi, Bensing, 2002). Providers stated in their interviews that pain is complex and the psychological and physical domains needed to be assessed for pain treatments to be successful. All providers agreed that chronic pain required aggressive intervention and treatment. However, providers understood that successful treatment of pain is assigned only after a comprehensive pain assessment.

Providers relied on visual cues for the assessment of a women's' pain that included grimacing, guarded behaviors, walking slowly, including the use of a cane, walker, or wheelchair. The literature demonstrated that nurses relied on visual clues for pain assessment (Moddeman, 1995). Direct observations are imperative in the assessment of the patient in pain (Lewis, Heitkemper, Dirksen, O'Brian, & Bucher, 2007). Researchers found there was a higher correlation between facial and pain expressions in women than in men (Kunz, Gruber, &

Lautenbacher, 2006). Providers agreed that their direct observations was the most commonly used indicator of a women's' pain severity.

Physical pain behaviors were often observed by providers but some women are stoic and therefore, pain behaviors were absent. Consistent with the literature, providers articulated what research described in those military men and women often behave stoically (APF, 2006). Stoicism alerted some of the providers that pain behaviors did not consistently accompany behaviors of women with chronic pain. Any pauses in conversation with someone who was stoic, offered insight into whether or not a provider continued to probe for many co-occuring conditions. Military culture influenced women's expression and perceptions of pain and determined the fashion in which women communicated their chronic pain to providers (Honeyman & Jacobs, 1996).

Providers believed that not only is pain behavior frowned in the military, but once women displayed pain behaviors, providers understood that women are surprised that their pain is not validated by others. The literature supported that health care providers believed women tolerated pain better than men and is linked to a women's reproductive functioning (Bendelow, 2000). Because women tolerated higher pain levels, these providers confirmed they validated a woman's' pain. Women providers consistently reported that they validated pain irregardless whether or not there was any physical evidence.

Women agreed that they did not want providers to discount the severity of their chronic pain. Some women were surprised that providers relied on womens' self-reports of pain and prescribed pain treatments. McCaffrey (2000) demonstrated that self-reports of pain are the most accurate assessment of pain severity. Even when the physical findings were lacking, providers prescribed pain treatments and women were both surprised and relieved that providers believed them and as a result, administered pain care.

Providers on the other hand, agreed that women who reported chronic pain severity were taken seriously and even in the absence of physical evidence, were prescribed pain treatments and referrals. Providers understood that not only were they key for a women's pain relief, but vindication for these women that pain is real. A provider indicated that the women's psychological state is strengthened by the time they leave their visit with these providers.

Somatic complaints suggested to providers that there are other reasons for the patients' pain that are linked to the patient seeking pain care (Dersh, Polatin, & ,Gatchel, 2002). Somatic complaints provided the primary reason for some women to seek care. The literature confirmed that some chronic pain patients prescribed to an alternative way of communicating their emotional distress through their somatic complaints (Fishbain, 1999). Providers are encouraged when a women disclosed a precipitous event or when a women pauses when asked a direct question. The providers concluded that the pauses are clues that underlying conditions are unmasking or a traumatic event will be disclosed. Providers understood that a womens' chronic pain and co-morbidities have implications for treatments and that treatments for all their conditions are required in order for a woman to feel better.

Providers believed that a woman's psychological make-up, the exisitence of depression, sexual abuse, and mental illness affected pain tolerance and treatment success. The literature was replete with evidence that demonstrated the association of increased risk in veterans with mental health disorders, including PTSD, to chronic pain conditions (Asmundson, Wright, Stein, 2004; Beckman, et al, 1997; Otis, Keane, & Kerns, 2003).

Shipherd, et al (2007) found that 66% of male veterans with PTSD had a co-morbid chronic pain diagnosis. However, only 57% of this sample of women reported depression and 29% reported depression and PTSD with chronic pain. Although providers specifically did not divuldge specific treatments for PTSD, providers understood the correlation with chronic pain and PTSD, mental illnesses, and sexual trauma. The facts are that women veterans are significantly at risk for chronic pain is supported with their high rates of exposure to depression and sexual trauma (Murdoch, Polusny, Hodges, O'Brien, 2004).

Almost one-half of these women (43%) reported sexual abuse. Of those who reported sexual abuse, 83% of these women reported one or more mental illnesses. Women exposed to sexual trauma have an increased predilection to mental illness and somatization disorders compared to those who have no sexual trauma history (Resick, 1993; Seedat & Stein, 2000). A national VA survey revealed that women veterans that were VA users reported that one in every four women veterans reported sexual trauma (Skinner et al, 2000). Although these providers purported that comorbidities confound pain and pain care, the literature supported that women refrained from reporting sexual assault because of the negative effects on their military careers. Therefore, sexual trauma could likely be underreported in this sample of women (Suŕis Lind, Kashner, & Borman, 2007).

Unfortunately, almost all of the providers articulated that pain coupled with mental illness altered the pain care these women received at primary health care encounters. One could argue that mental illnesses and chronic pain could have resulted in some of these womens' high health care utilization rates. Gatchel and Turk (1999) determined that these higher utilization rates might be because men are more hesitant than women to disclose the numbers of health related visits or care to recall the number of health care visits. Researchers reported higher health care utilization rates for individuals with chronic pain and PTSD (Calhoun, Bosworth, Grambow, Dudley, & Beckman, 2002; Schnurr, Friedman, Sengupta, Jankowski, & Holmes, 2000).

Kaur, Stechuchak, Coffman, Allen, Bastian (2007) reported that women veterans with chronic pain reported higher health care utilization rates than men. The findings indicated that the mean number of health related visits per year was 25.2 (SD 30.2). Women in this sample reported almost one and one-half times that number [34.46 (SD 10.71)]. However, research supported that early pain diagnosis and treatments preserved health care utilization (Turk, Loeser, & Monarch, 2002). This sample of women reported slightly higher health care utilization and therefore, likely resulted from inadequate early pain treatments and comorbidities.

Although the assessment of two pain domains are necessary, providers offered that communication underpinned the ability for a provider to adequately assess and treat pain for these women. During the interviews, providers were attuned to clues that underlying conditions were often masked by pain when women presented at the clinic and communication was described by providers as essential. The treatment of pain was influenced by cultural backgrounds and effective pain relief required a two way communication between the provider and the client (Marie, 2010).

Providers articulated that the most important goal they strived for while facilitating communication between them and their patients was trust (Kavanaugh & Kennedy, 1992). Communication is a process whereby individuals engage in creating meaning (Nance, 1996). The goal of communication between provider and patient are to decrease doubt and establish trust. In fact, facilitating trust, caring behaviors, and understanding the patients' goals and expectations, proved to be an important component of these provider relationships with women in chronic pain. Women identified caring behaviors such as being helpful, listening, offers of options for referrals to specialist, prescription medications, and timely appointments made them feel that providers cared about them. Women agreed that providers at the woman's clinic displayed caring behaviors.

Most of these women have experiences with providers that displayed non-caring behaviors. Non-caring behaviors included providers that thought that women were unintelligent, ignorant, and dismissed their high pain levels without medical evidence. Almost all the women described that the women's clinic providers listened to their concerns about pain and believed self-reports of pain. Women were prescribed medications and given prescriptions for referrals as a result. Women stated that as a result of these behaviors, women described feelings of safety, trust, and generally felt better.

The Department of Veteran Affairs Health Services and Development Services (HSR&D) Evidence Synthesis Pilot Program (2007) suggested that a more racially congruent health care environment for minority veterans would increase trust and improve the acceptability of health care. Two additional studies found Black veterans reported better interactions and improved health outcomes when they received care from Black providers. Women verbalized that they appreciated receiving health care from these women providers. The providers were not only all women, but 50% of the providers were minority women providers and one fourth of these women were minority women.

Providers understood that the health encounter was key for some women to get help for pain. Evidence from both experimental and clinical studies suggested that physican gender influenced pain treatments and prescriptions positively for women. For example, female physicans prescribed equal numbers of activity restrictions for men and women while male physicians recommended higher activity restrictions to women patients (Safran, Rogers, Tarlov, McHorney, & Ware, 1997). Male physicans precribed a higher number of opiod prescriptions for male patients than for females while with female physicans the opposite was true (Weisse, Sorum, Sanders, & Syat, 2001). All of these providers stated in their interviews that as women providers, they supported aggressive pain care, including opiods.

Women have access to a pain clinic, which is located at the hospital, and it is available to veterans by referral from primary care if first line treatments failures are well documented. Patients must be enrolled as primary care clinic patients a minimum of six months, well controlled on pain medication, and submit to monthly urine testing. The providers referred 21% of these women to the pain clinic for further evaluation and treatment. Thus, pain and pain care

are a priority for enlisted women, especially at the James A. Haley VA Hospital and Women's Clinic.

War has causalties and pain is one of them. Clark, Bair, Buckenmaker, Gironda, Walker (2007) reported that 96% of returning OIF and OEF soldiers experienced at least one pain condition, while 78% reported mental health problems. Giroanda, Clark, Massengale, & Walker (2006) reported 47% of OIF/OEF soldiers reported at least a mild level of acute pain. Of the sample, 7% (15) were female. About 36% of those with current pain were associated with an identifiable injury. Seventy-eight percent of the women in this sample have served in these conflicts.

Wartime service has exposed these young women to not only significant pain, but disability at very young ages. Providers are cognizant of the fact that pain that is left untreated will result in further deterioration in the lives of these women and a poor quality of life. Because acute pain conditions were undertreated, these women are disabled at very young ages in which long term quality of life outcomes for these women are unknown.

Limitations

This study has several limitations. First, the sample was as a result of a single study site and therefore, the findings are not generalizable to different populations of enlisted women experiencing chronic pain outside of the facility where the study was conducted. Secondly, the sample of enlisted women included retired women, discharged women, and only one reservist, therefore, the findings are limited to this sample. They also had a service related disability. The findings were from the experiences that were recalled by these women who lived the life of enlisted women and does not address chronic pain in the lives of enlisted women currently serving. The research might have yielded different results if the inclusion criteria included the term active duty enlisted women and not just enlisted women.

Third, there were methodological concerns as a result of the quantitative mindset and lengthy processes of the VA IRB. Because of these constraints, the researchers decided to modify the original proposal in several ways; excluded note-taking during the data collection, and reduced the sample size to exactly 15 instead of 15-30 enlisted women which might have affected data saturation. Fourth, this was a descriptive study and therefore more controlled studies need to be conducted to determine what are successful pain treatments for these women and the ramifications of early adequate acute pain care has on chronic pain conditions.

Conclusion

The findings supported the magnitude that military culture and training has on enlisted women's chronic pain experiences. Women believed Mission First constituted a higher calling of commitment to the United States of America that trumped individualism. All of these women articulated in their interviews their belief that their military mindset permeated their lives and prefaced their beliefs about their chronic pain, pain behaviors, and pain care. This finding from this study developed an understanding of the cultural component within the framework of the social domain of the biopsychosocial model that demonstrated that military culture directly affected enlisted women's chronic pain beliefs and experiences. Enlisted women offered a unique point of view about chronic pain and pain care because of the influences that military culture had on the social aspects of their lives, which in turn, influenced their chronic pain experiences.

Enlisted women who perceived they had control over pain reported many coping strategies and decision-making about their lives long term. Enlisted women who perceived that they had little control had difficulty coping. Enlisted women who reported any combinations of sexual trauma, mental illness, and service-related injuries were considered complex chronic pain patients by providers and therefore, were associated with increased health related visits because of complex treatments for not only their pain, but also their co morbidities. More importantly, the majority of women believed that living a life as enlisted women influenced their understanding that their inadequate acute pain care lead to their chronic pain condition. The younger, minority, enlisted women are particularly vulnerable because of their repeated exposure to hazards in the military and as a result, are at risk for acute pain conditions that if inadequately treated resulted in chronic pain.

Implications for Nursing

Enlisted women provided a distinctive perspective about the influence that military life had on their chronic pain experiences. Nurses are at the front line of pain assessment and are integral to providing pain relief for these women. Unless nurses understand that enlisted women tolerate high levels of pain and limit pain behaviors, pain assessment will remain inaccurate and pain relief for these women remains in doubt. Nurses must be well-versed in medical and non-medical pain treatments and willing to talk to enlisted women about these treatments. Nurses would benefit from pain education programs and mandatory on-line materials about pain and pain management in order to support women with chronic pain better.

Simple, on-line, or printed, easy to understand pain management educational materials are one way to provide women with information about self-care strategies to improve their control over pain. Enlisted women have some control over pain but are seeking pain relief measure outside of medical care. Enlisted women agreed that they would benefit by learning how they can successfully manage their own pain and encourage other women that they can access not only pain care but also educational materials about pain at the VA. If educational materials about pain and pain management were offered to women experiencing chronic pain, they would increase their understanding about chronic pain and pain care. If women understood that, they had strategies to gain more control over pain and improve their function, and improve their quality of life. Enlisted women could be educated by nurses to add to their myriad of pain care strategies so they could better manage their overall chronic pain care.

Future Research

Future research needs to be conducted that addresses the impact that education about pain and pain management has on pain control, pain levels, and health care utilization for enlisted women. Experimental studies comparing combinations of multimodal therapys are necessary to provide evidence about what strategies are beneficail for enlisted women to find pain relief. Once the evidence justifys the need, the VA can offer these modalities in addition to medical intervention and medications. These inexpensive additions to the services offered at the womens health clinic could maximize resources.

Summary

A military mindset provided these women with a common point that served as a mechanism for interpreting their pain beliefs and care. Enlisted women's' exposure to military culture, that included training, hazardous work conditions, and war, formulated their beliefs and perceptions about pain and pain care. Wilson (2008, p. 20) stated, "that an army needs a sufficient level of institutional development and cohesion to adhere to a recognized mission, rather than a group or individualized interests". These women adhered to the complexities of their military training and culture, which ascended beyond their personal desires and transcended their perceptions of their chronic pain and pain care well into their civilian lives.

> Master Chief John Urgayle: Pain is your friend, your ally, it will tell you when you are seriously injured, it will keep you awake and angry, and remind you to finish the job and get the hell home. But you know the best thing about pain?
>
> Lt. Jordan O'Neil: Don't know!
>
> Master Chief John Urgayle: It lets you know you're not dead yet! (G.I.Jane, 1997).

APPENDIX A

BIOPSYCHOSOCIAL APPROACH TO CHRONIC PAIN

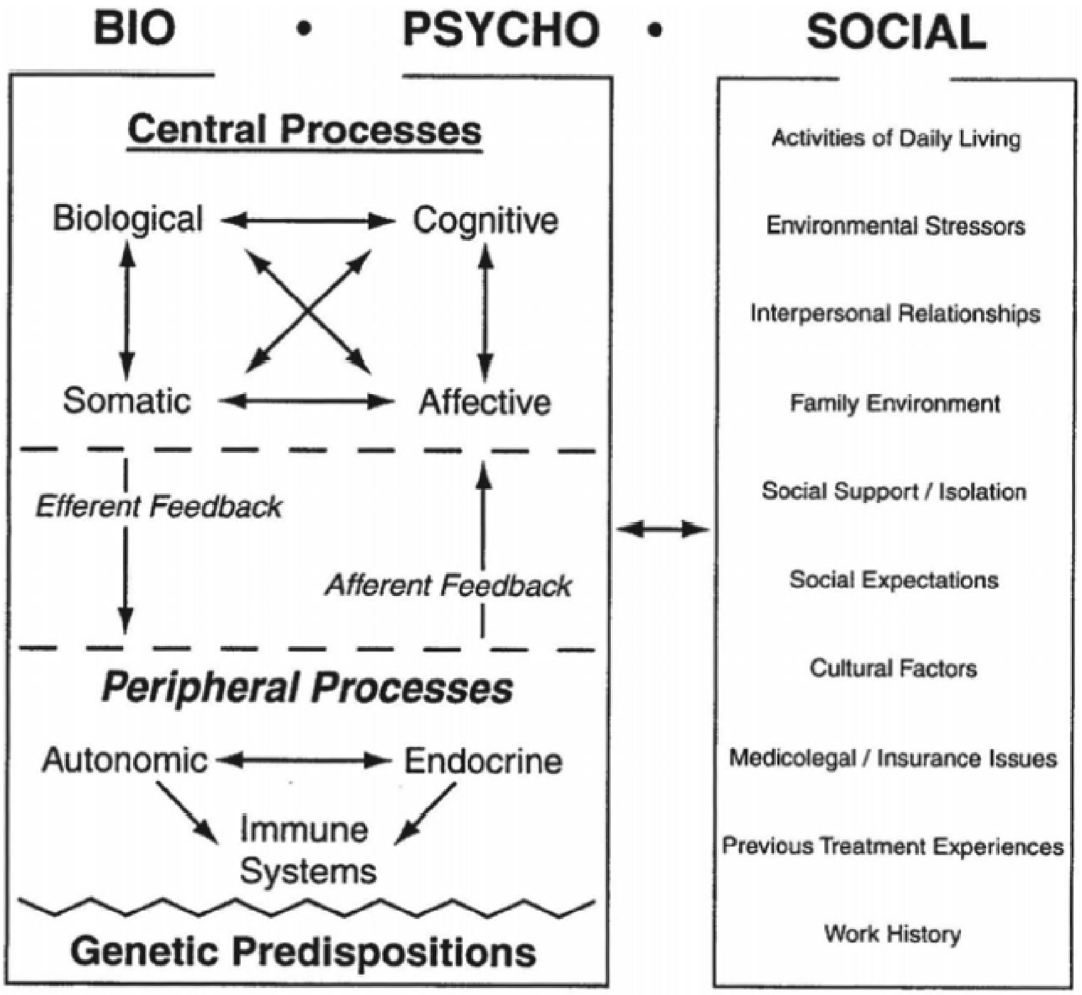


Figure 1. A conceptual model of the biopsychosocial interactive processes involved in health and illness. From "Comorbidity of Chronic Mental and Physical Health Conditions: The Biopsychosocial Perspective," by R. J. Gatchel, *American Psychologist, 59,* 792–805. Copyright 2004 by the American Psychological Association.

APPENDIX B

PAIN DIARIES

Keeping A Pain Diary

You are the only one who knows how much pain you are feeling. When your doctor asks you about the pain, you probably won't remember how hard some days were. You may not remember how bad the pain was. The diary is to help you describe what is happening to you while it is happening. It will be very helpful to your doctor to know when the pain was bad, what made you feel better, and what didn't make you feel better.

Don't worry about how much to write. You don't even have to write sentences. Just write the words that describe how you are feeling. Don't worry if you miss a day. Do it when you can. If thinking about your pain every day is too hard, put the diary away for a few days and go back to it when you are ready. This is your diary. Write when you can for as many days as you can and then stop.

Keep a small notebook or tape recorder with you all day and, during the course of the day, write down what you are feeling. The following questions might help you. Write the date and time every time you write in the diary. If writing is too painful, ask a family member or friend to do it for you or record the diary on a tape recorder.

1. **Where does it hurt?** List every place that hurts. Does the pain move? Does the pain feel different in different places?
2. **How does the pain feel?** The following words might be helpful: burning, stabbing, sharp, aching, throbbing, tingling, dull, pounding, or pressing.
3. **Did you have pain when you woke up or did it start later?**
4. **Does the pain change during the day?**
5. **What, if anything, makes the pain better or worse?**
6. **What medicines are you taking? Do they help—never, sometimes, always?**
   List all of the medicines your doctor gave you and all of the medicines you bought for yourself at the store.
7. **Have you stopped taking any medicines because they made you constipated, sleepy or sick, or for other reasons?**
8. **Do you do anything to help make the pain go away other than taking medicine such as getting a massage, or meditating, etc.?**
9. **Do you have trouble sleeping because of the pain?**
10. **Does the pain keep you from spending time with family or friends?**
11. **Do you skip meals because of the pain?**
12. **How has the pain changed your life?**

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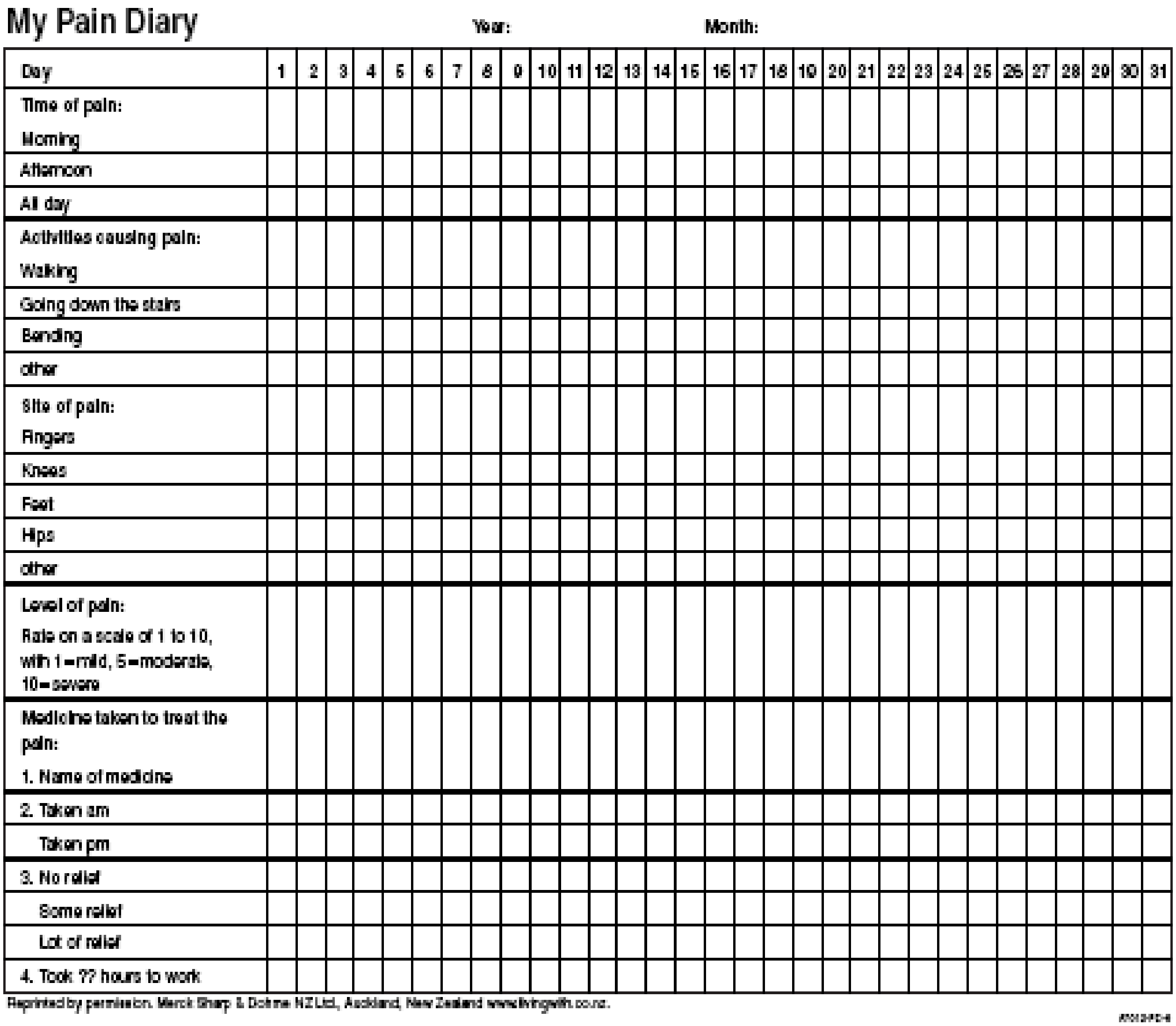
www.painfoundation.org.



My Pain Diary

Year: **Month:**

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Time of pain: Morning																															
Afternoon																															
All day																															
Activities causing pain: Walking																															
Going down the stairs																															
Bending																															
other																															
Site of pain: Fingers																															
Knees																															
Feet																															
Hips																															
other																															
Level of pain: Rate on a scale of 1 to 10, with 1=mild, 5=moderate, 10=severe																															
Medicine taken to treat the pain: 1. Name of medicine																															
2. Taken am																															
Taken pm																															
3. No relief																															
Some relief																															
Lot of relief																															
4. Took ?? hours to work																															

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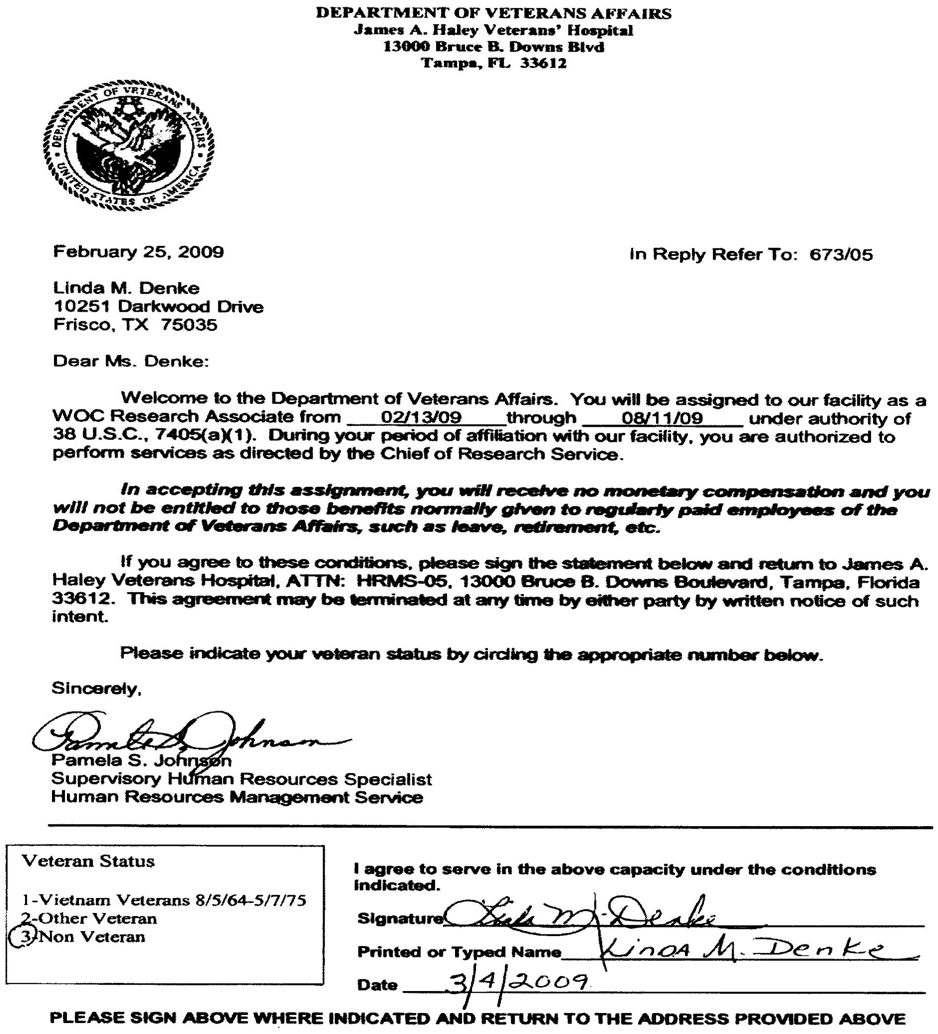
APPENDIX C

INSTITUTIONAL REVIEW BOARD FORMS & CONSENTS



DEPARTMENT OF VETERANS AFFAIRS
James A. Haley Veterans' Hospital
13000 Bruce B. Downs Blvd
Tampa, FL 33612

February 25, 2009

In Reply Refer To: 673/05

Linda M. Denke
10251 Darkwood Drive
Frisco, TX 75035

Dear Ms. Denke:

Welcome to the Department of Veterans Affairs. You will be assigned to our facility as a WOC Research Associate from 02/13/09 through 08/11/09 under authority of 38 U.S.C., 7405(a)(1). During your period of affiliation with our facility, you are authorized to perform services as directed by the Chief of Research Service.

In accepting this assignment, you will receive no monetary compensation and you will not be entitled to those benefits normally given to regularly paid employees of the Department of Veterans Affairs, such as leave, retirement, etc.

If you agree to these conditions, please sign the statement below and return to James A. Haley Veterans Hospital, ATTN: HRMS-05, 13000 Bruce B. Downs Boulevard, Tampa, Florida 33612. This agreement may be terminated at any time by either party by written notice of such intent.

Please indicate your veteran status by circling the appropriate number below.

Sincerely,

Pamela S. Johnson
Supervisory Human Resources Specialist
Human Resources Management Service

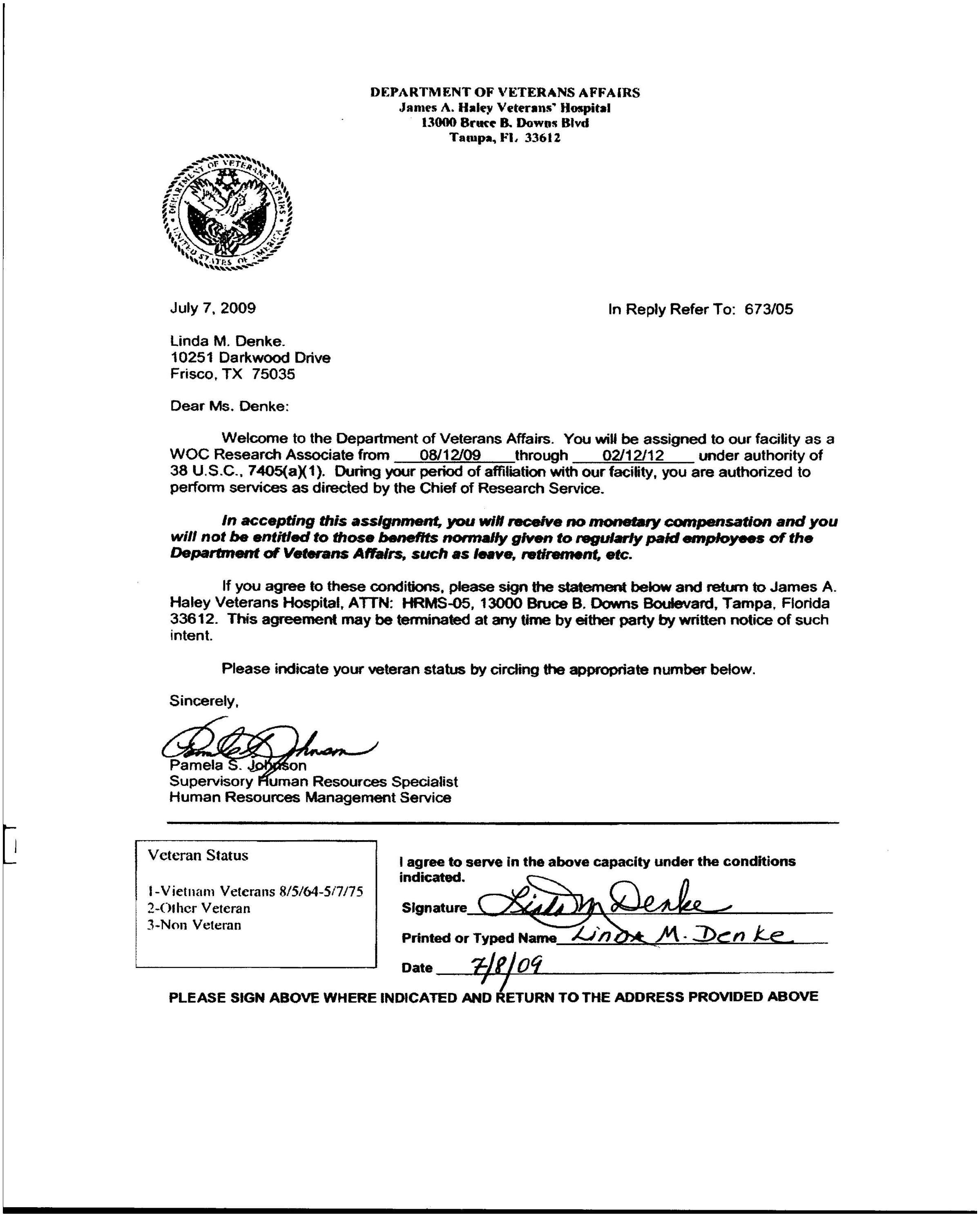
Veteran Status

1-Vietnam Veterans 8/5/64-5/7/75
2-Other Veteran
[✓ 3]-Non Veteran

I agree to serve in the above capacity under the conditions indicated.

Signature Linda M. Denke
Printed or Typed Name Linda M. Denke
Date 3/4/2009

PLEASE SIGN ABOVE WHERE INDICATED AND RETURN TO THE ADDRESS PROVIDED ABOVE



DEPARTMENT OF VETERANS AFFAIRS
James A. Haley Veterans' Hospital
13000 Bruce B. Downs Blvd
Tampa, FL 33612

July 7, 2009 In Reply Refer To: 673/05

Linda M. Denke.
10251 Darkwood Drive
Frisco, TX 75035

Dear Ms. Denke:

Welcome to the Department of Veterans Affairs. You will be assigned to our facility as a WOC Research Associate from 08/12/09 through 02/12/12 under authority of 38 U.S.C., 7405(a)(1). During your period of affiliation with our facility, you are authorized to perform services as directed by the Chief of Research Service.

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If you agree to these conditions, please sign the statement below and return to James A. Haley Veterans Hospital, ATTN: HRMS-05, 13000 Bruce B. Downs Boulevard, Tampa, Florida 33612. This agreement may be terminated at any time by either party by written notice of such intent.

Please indicate your veteran status by circling the appropriate number below.

Sincerely,

Pamela S. Johnson
Supervisory Human Resources Specialist
Human Resources Management Service

Veteran Status

1-Vietnam Veterans 8/5/64-5/7/75
2-Other Veteran
3-Non Veteran

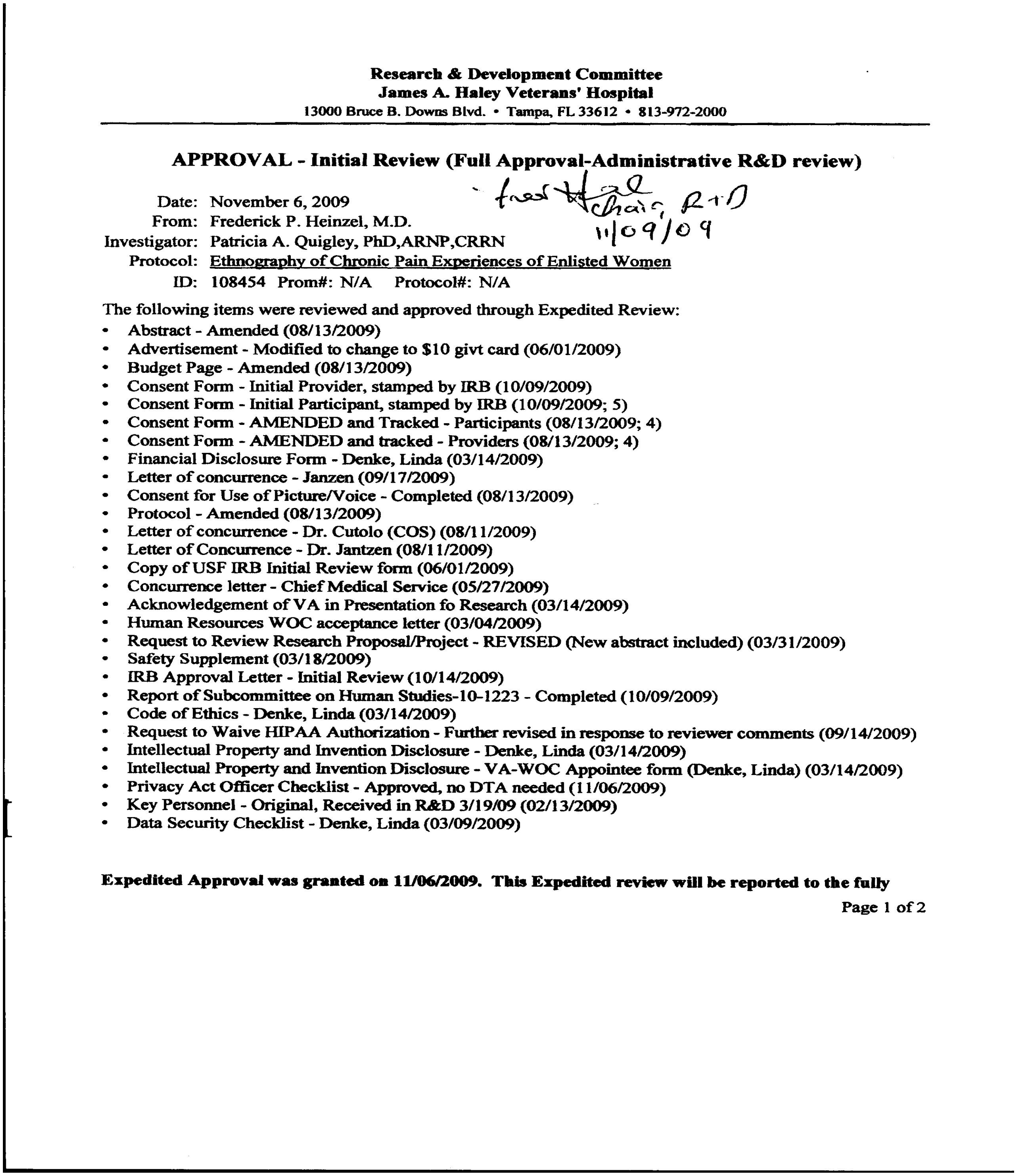
I agree to serve in the above capacity under the conditions indicated.

Signature Linda M Denke

Printed or Typed Name Linda M. Denke

Date 7/8/09

PLEASE SIGN ABOVE WHERE INDICATED AND RETURN TO THE ADDRESS PROVIDED ABOVE



Research & Development Committee
James A. Haley Veterans' Hospital
13000 Bruce B. Downs Blvd. • Tampa, FL 33612 • 813-972-2000

APPROVAL - Initial Review (Full Approval-Administrative R&D review)

Date: November 6, 2009
From: Frederick P. Heinzel, M.D.
Investigator: Patricia A. Quigley, PhD,ARNP,CRRN
Protocol: Ethnography of Chronic Pain Experiences of Enlisted Women
ID: 108454 Prom#: N/A Protocol#: N/A

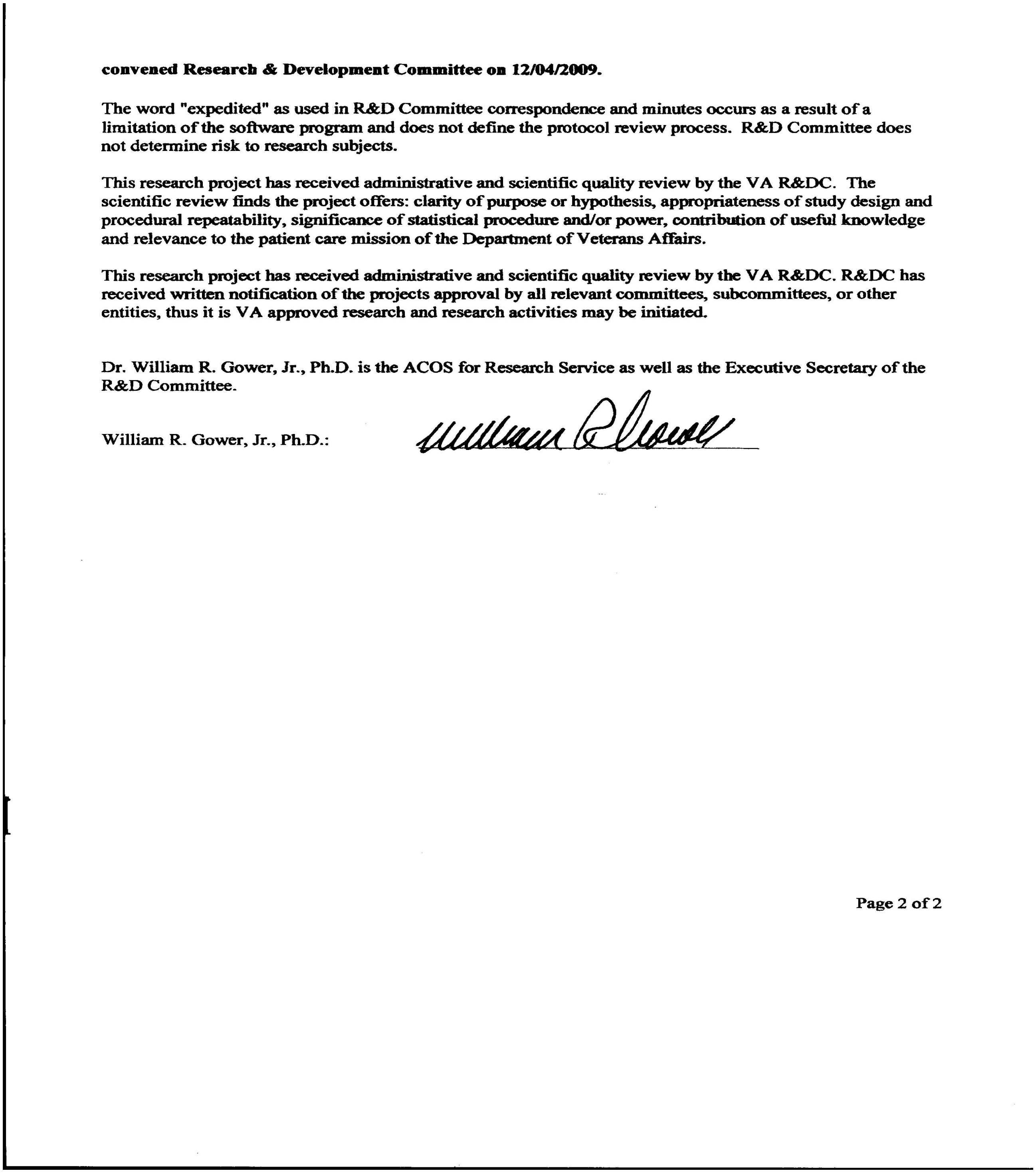
fred H Chair, R+D
11/09/09

The following items were reviewed and approved through Expedited Review:

- Abstract - Amended (08/13/2009)
- Advertisement - Modified to change to $10 givt card (06/01/2009)
- Budget Page - Amended (08/13/2009)
- Consent Form - Initial Provider, stamped by IRB (10/09/2009)
- Consent Form - Initial Participant, stamped by IRB (10/09/2009; 5)
- Consent Form - AMENDED and Tracked - Participants (08/13/2009; 4)
- Consent Form - AMENDED and tracked - Providers (08/13/2009; 4)
- Financial Disclosure Form - Denke, Linda (03/14/2009)
- Letter of concurrence - Janzen (09/17/2009)
- Consent for Use of Picture/Voice - Completed (08/13/2009)
- Protocol - Amended (08/13/2009)
- Letter of concurrence - Dr. Cutolo (COS) (08/11/2009)
- Letter of Concurrence - Dr. Jantzen (08/11/2009)
- Copy of USF IRB Initial Review form (06/01/2009)
- Concurrence letter - Chief Medical Service (05/27/2009)
- Acknowledgement of VA in Presentation fo Research (03/14/2009)
- Human Resources WOC acceptance letter (03/04/2009)
- Request to Review Research Proposal/Project - REVISED (New abstract included) (03/31/2009)
- Safety Supplement (03/18/2009)
- IRB Approval Letter - Initial Review (10/14/2009)
- Report of Subcommittee on Human Studies-10-1223 - Completed (10/09/2009)
- Code of Ethics - Denke, Linda (03/14/2009)
- Request to Waive HIPAA Authorization - Further revised in response to reviewer comments (09/14/2009)
- Intellectual Property and Invention Disclosure - Denke, Linda (03/14/2009)
- Intellectual Property and Invention Disclosure - VA-WOC Appointee form (Denke, Linda) (03/14/2009)
- Privacy Act Officer Checklist - Approved, no DTA needed (11/06/2009)
- Key Personnel - Original, Received in R&D 3/19/09 (02/13/2009)
- Data Security Checklist - Denke, Linda (03/09/2009)

Expedited Approval was granted on 11/06/2009. This Expedited review will be reported to the fully

Page 1 of 2



convened Research & Development Committee on 12/04/2009.

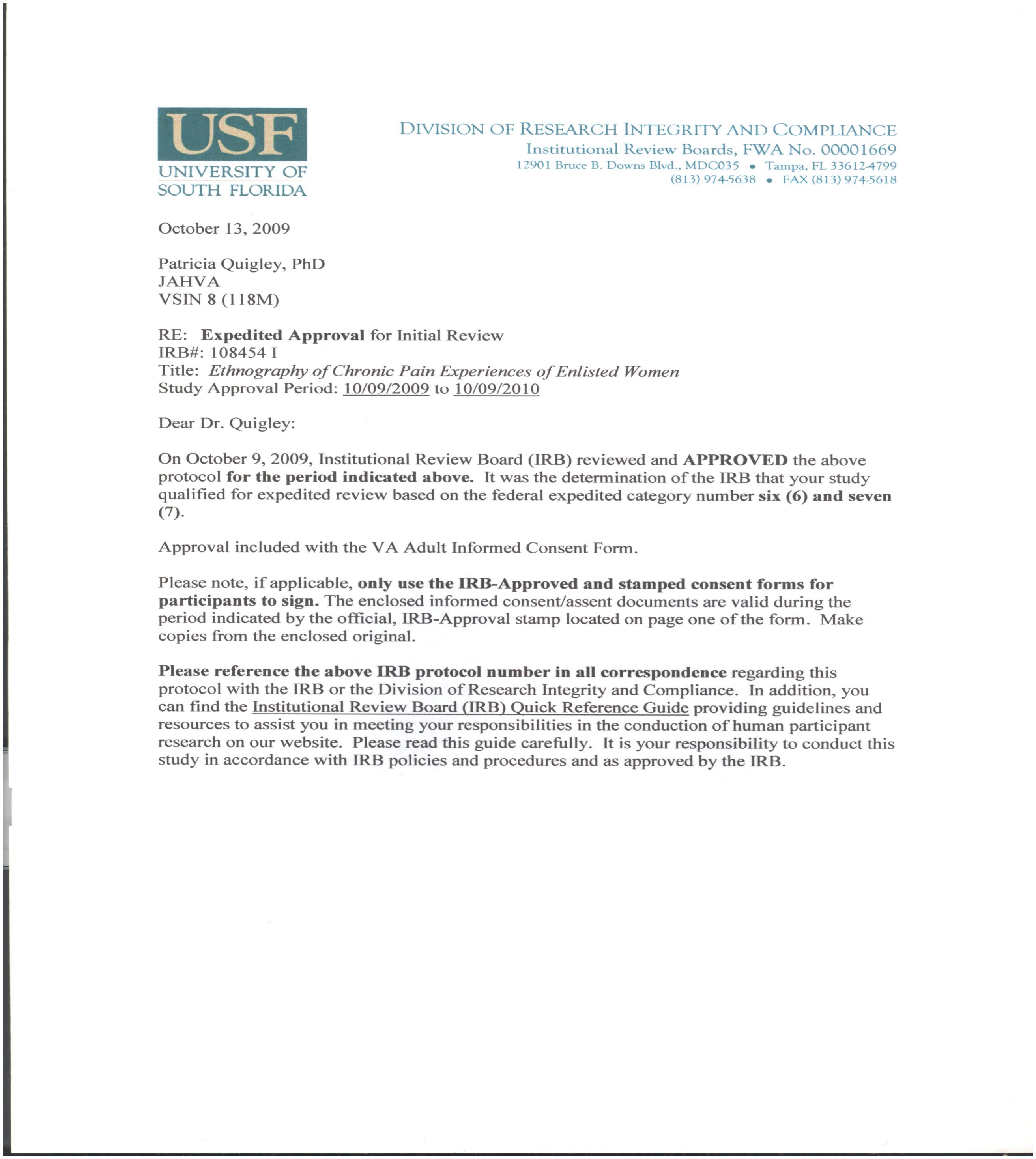
The word "expedited" as used in R&D Committee correspondence and minutes occurs as a result of a limitation of the software program and does not define the protocol review process. R&D Committee does not determine risk to research subjects.

This research project has received administrative and scientific quality review by the VA R&DC. The scientific review finds the project offers: clarity of purpose or hypothesis, appropriateness of study design and procedural repeatability, significance of statistical procedure and/or power, contribution of useful knowledge and relevance to the patient care mission of the Department of Veterans Affairs.

This research project has received administrative and scientific quality review by the VA R&DC. R&DC has received written notification of the projects approval by all relevant committees, subcommittees, or other entities, thus it is VA approved research and research activities may be initiated.

Dr. William R. Gower, Jr., Ph.D. is the ACOS for Research Service as well as the Executive Secretary of the R&D Committee.

William R. Gower, Jr., Ph.D.: William R Gower



USF
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DIVISION OF RESEARCH INTEGRITY AND COMPLIANCE
Institutional Review Boards, FWA No. 00001669
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799
(813) 974-5638 • FAX (813) 974-5618

October 13, 2009

Patricia Quigley, PhD
JAHVA
VSIN 8 (118M)

RE: **Expedited Approval** for Initial Review
IRB#: 108454 I
Title: *Ethnography of Chronic Pain Experiences of Enlisted Women*
Study Approval Period: 10/09/2009 to 10/09/2010

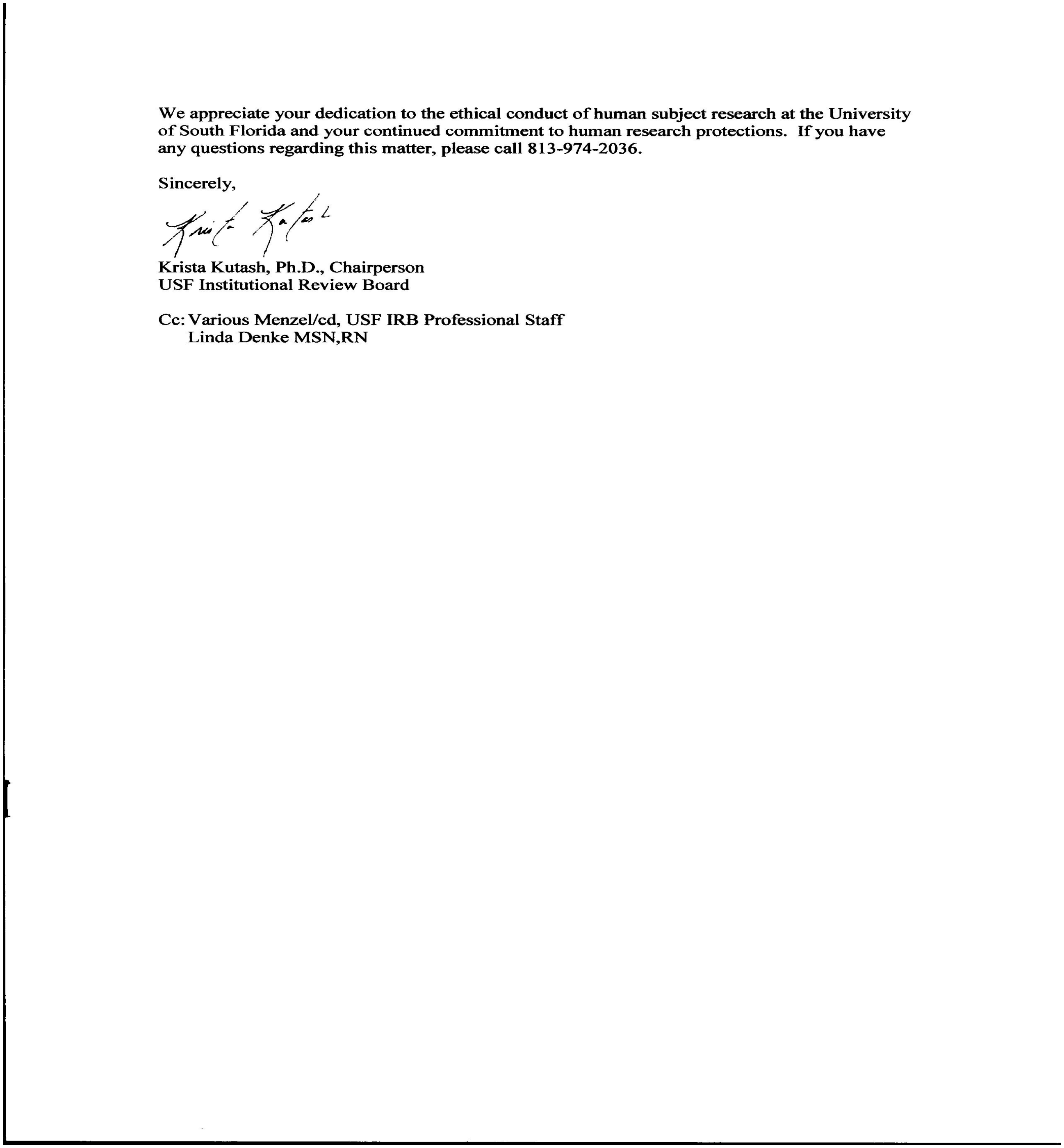
Dear Dr. Quigley:

On October 9, 2009, Institutional Review Board (IRB) reviewed and **APPROVED** the above protocol **for the period indicated above.** It was the determination of the IRB that your study qualified for expedited review based on the federal expedited category number **six (6) and seven (7)**.

Approval included with the VA Adult Informed Consent Form.

Please note, if applicable, **only use the IRB-Approved and stamped consent forms for participants to sign.** The enclosed informed consent/assent documents are valid during the period indicated by the official, IRB-Approval stamp located on page one of the form. Make copies from the enclosed original.

Please reference the above IRB protocol number in all correspondence regarding this protocol with the IRB or the Division of Research Integrity and Compliance. In addition, you can find the Institutional Review Board (IRB) Quick Reference Guide providing guidelines and resources to assist you in meeting your responsibilities in the conduction of human participant research on our website. Please read this guide carefully. It is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB.

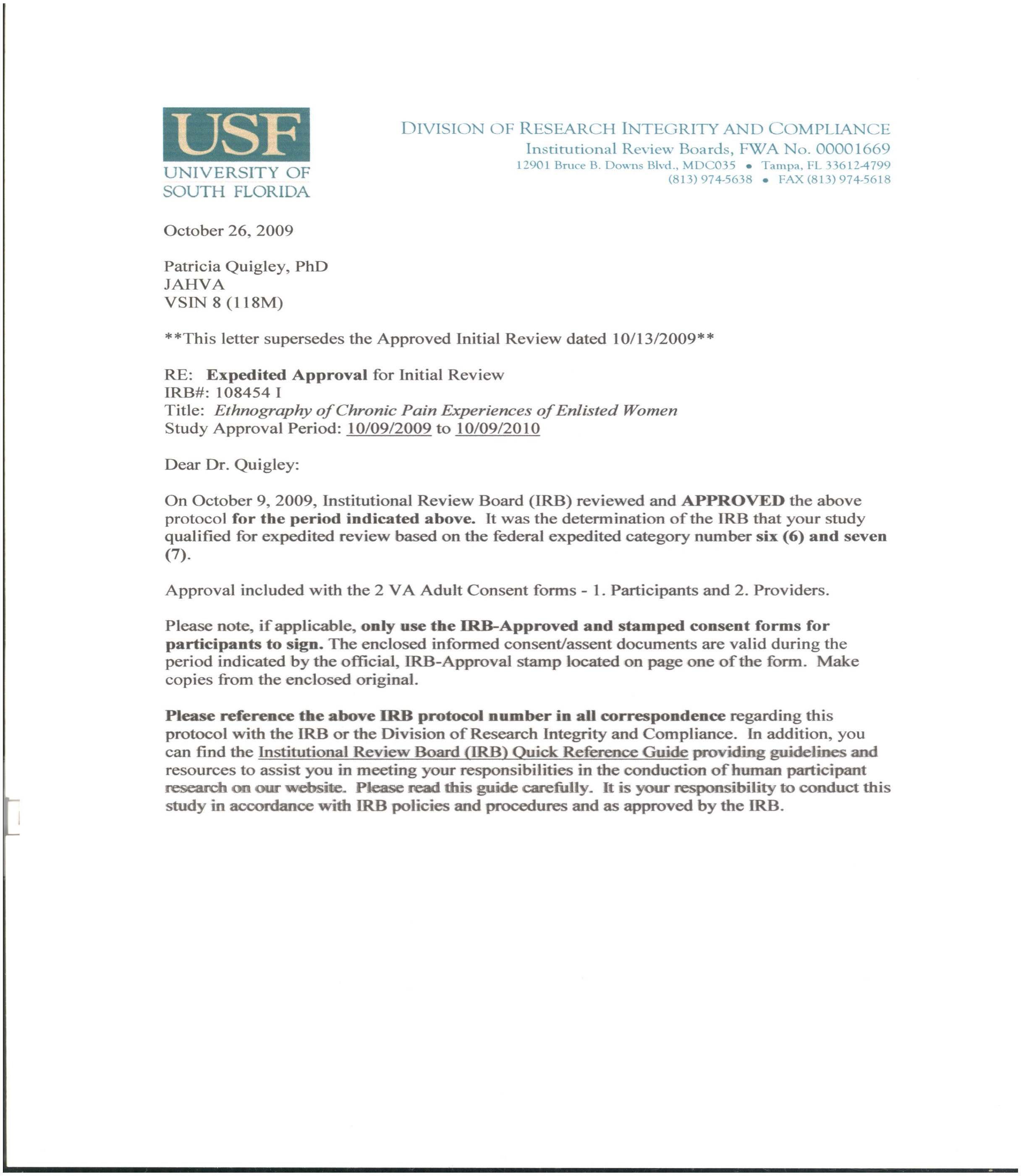


We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-2036.

Sincerely,

Krista Kutash, Ph.D., Chairperson
USF Institutional Review Board

Cc: Various Menzel/cd, USF IRB Professional Staff
Linda Denke MSN,RN



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October 26, 2009

Patricia Quigley, PhD
JAHVA
VSIN 8 (118M)

This letter supersedes the Approved Initial Review dated 10/13/2009

RE: **Expedited Approval** for Initial Review
IRB#: 108454 I
Title: *Ethnography of Chronic Pain Experiences of Enlisted Women*
Study Approval Period: 10/09/2009 to 10/09/2010

Dear Dr. Quigley:

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Approval included with the 2 VA Adult Consent forms - 1. Participants and 2. Providers.

Please note, if applicable, **only use the IRB-Approved and stamped consent forms for participants to sign.** The enclosed informed consent/assent documents are valid during the period indicated by the official, IRB-Approval stamp located on page one of the form. Make copies from the enclosed original.

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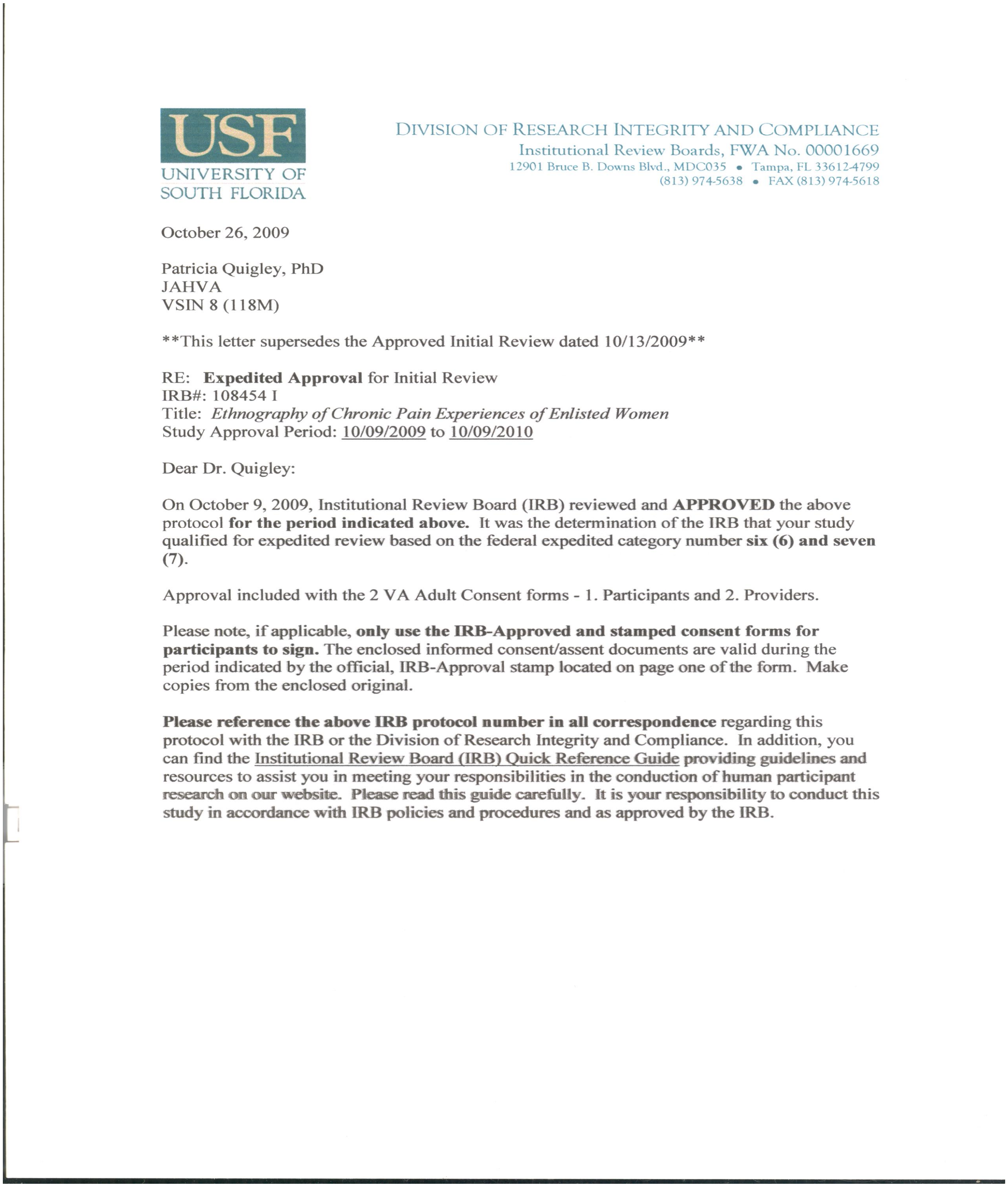

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October 26, 2009

Patricia Quigley, PhD
JAHVA
VSIN 8 (118M)

This letter supersedes the Approved Initial Review dated 10/13/2009

RE: **Expedited Approval** for Initial Review
IRB#: 108454 I
Title: *Ethnography of Chronic Pain Experiences of Enlisted Women*
Study Approval Period: 10/09/2009 to 10/09/2010

Dear Dr. Quigley:

On October 9, 2009, Institutional Review Board (IRB) reviewed and **APPROVED** the above protocol **for the period indicated above.** It was the determination of the IRB that your study qualified for expedited review based on the federal expedited category number **six (6) and seven (7).**

Approval included with the 2 VA Adult Consent forms - 1. Participants and 2. Providers.

Please note, if applicable, **only use the IRB-Approved and stamped consent forms for participants to sign.** The enclosed informed consent/assent documents are valid during the period indicated by the official, IRB-Approval stamp located on page one of the form. Make copies from the enclosed original.

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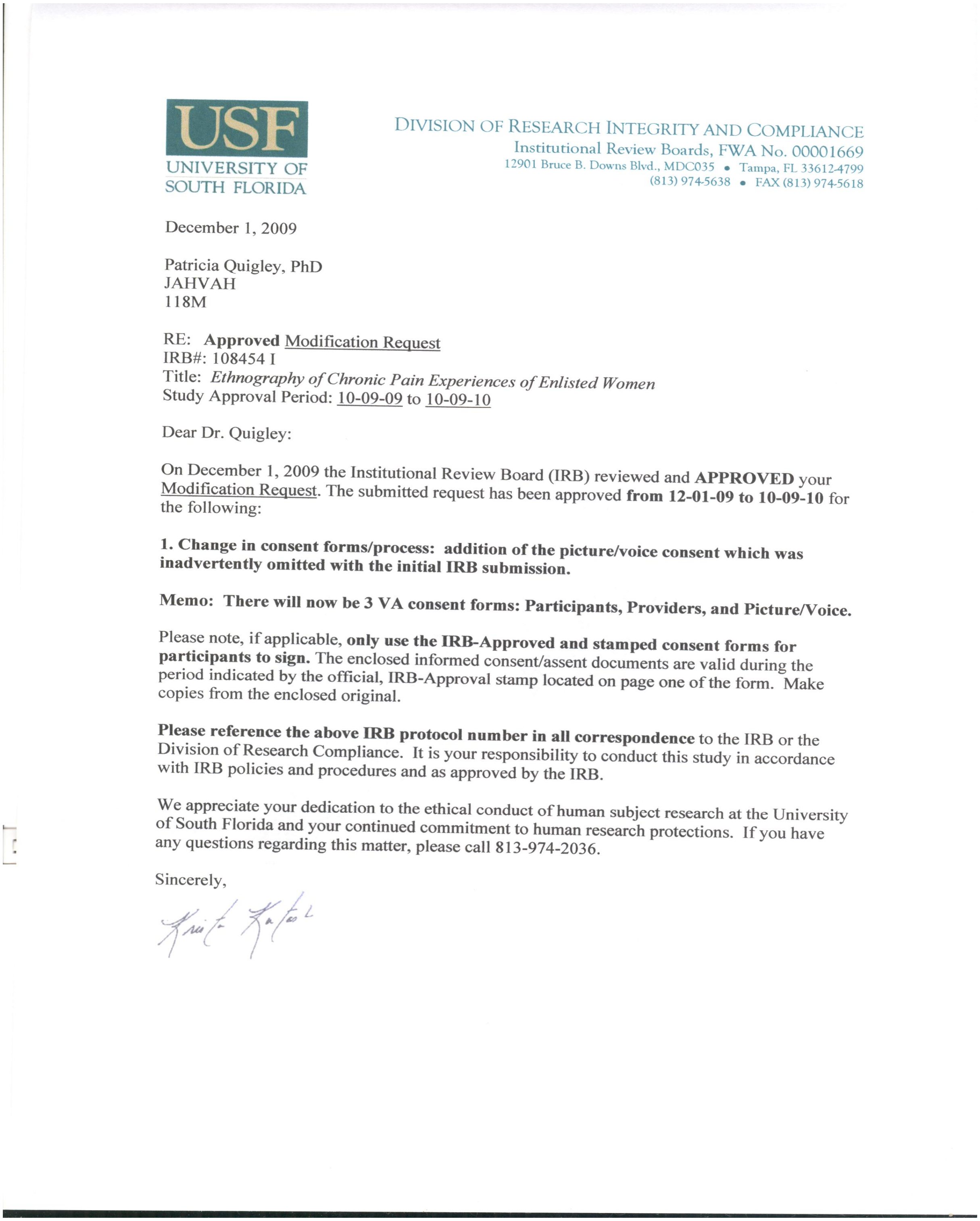

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(813) 974-5638 • FAX (813) 974-5618

December 1, 2009

Patricia Quigley, PhD
JAHVAH
118M

RE: **Approved** Modification Request
IRB#: 108454 I
Title: *Ethnography of Chronic Pain Experiences of Enlisted Women*
Study Approval Period: 10-09-09 to 10-09-10

Dear Dr. Quigley:

On December 1, 2009 the Institutional Review Board (IRB) reviewed and **APPROVED** your Modification Request. The submitted request has been approved **from 12-01-09 to 10-09-10** for the following:

1. Change in consent forms/process: addition of the picture/voice consent which was inadvertently omitted with the initial IRB submission.

Memo: There will now be 3 VA consent forms: Participants, Providers, and Picture/Voice.

Please note, if applicable, **only use the IRB-Approved and stamped consent forms for participants to sign.** The enclosed informed consent/assent documents are valid during the period indicated by the official, IRB-Approval stamp located on page one of the form. Make copies from the enclosed original.

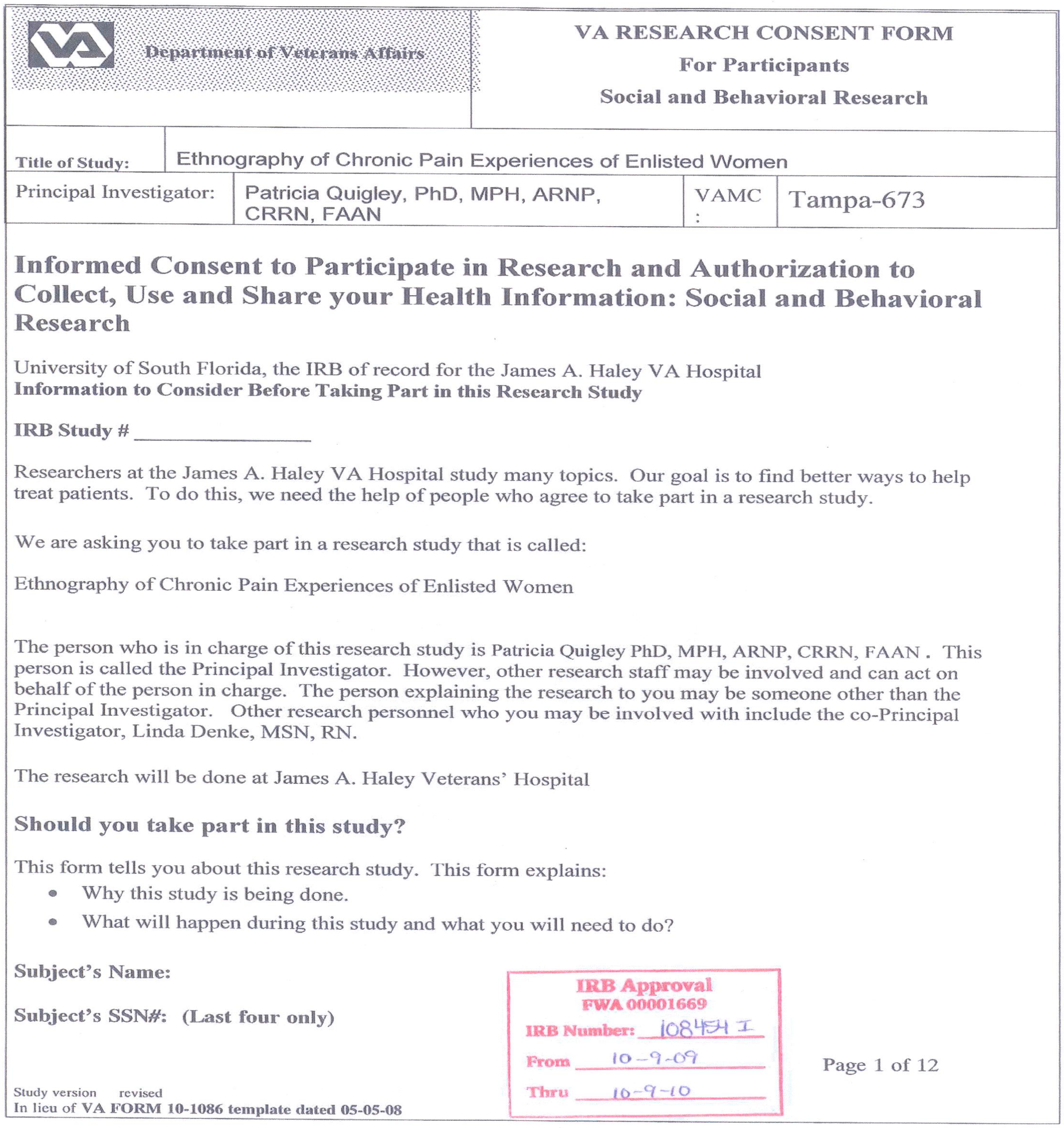
Please reference the above IRB protocol number in all correspondence to the IRB or the Division of Research Compliance. It is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB.

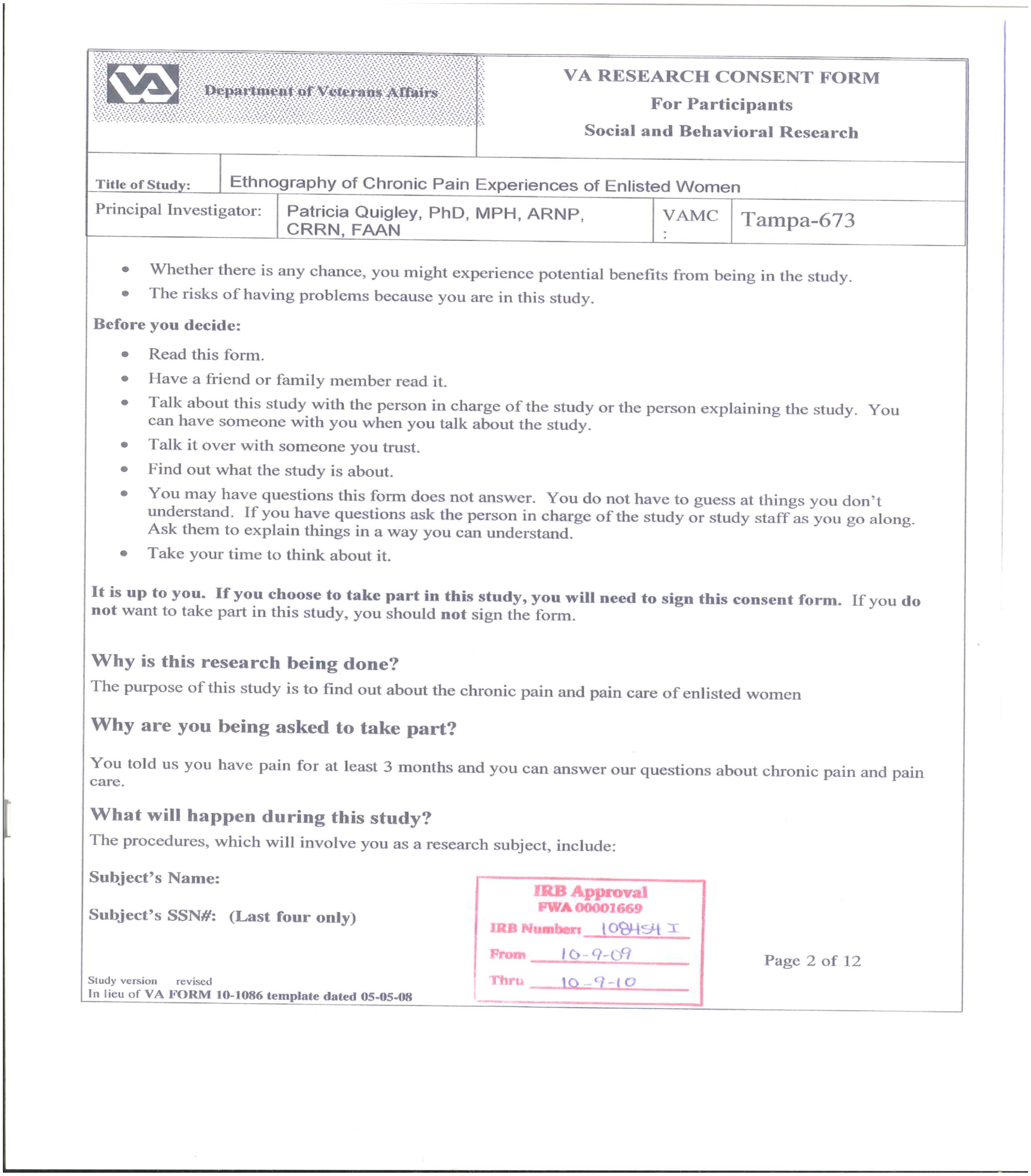
We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-2036.

Sincerely,

Krista Kutash, Ph.D., Chairperson
USF Institutional Review Board

Cc: Various B. Menzel, CCRP, USF IRB Support Staff
Linda Denke





Department of Veterans Affairs	**VA RESEARCH CONSENT FORM** **For Participants** **Social and Behavioral Research**

Title of Study:	Ethnography of Chronic Pain Experiences of Enlisted Women		
Principal Investigator:	Patricia Quigley, PhD, MPH, ARNP, CRRN, FAAN	VAMC:	Tampa-673

- Whether there is any chance, you might experience potential benefits from being in the study.
- The risks of having problems because you are in this study.

Before you decide:

- Read this form.
- Have a friend or family member read it.
- Talk about this study with the person in charge of the study or the person explaining the study. You can have someone with you when you talk about the study.
- Talk it over with someone you trust.
- Find out what the study is about.
- You may have questions this form does not answer. You do not have to guess at things you don't understand. If you have questions ask the person in charge of the study or study staff as you go along. Ask them to explain things in a way you can understand.
- Take your time to think about it.

It is up to you. If you choose to take part in this study, you will need to sign this consent form. If you **do not** want to take part in this study, you should **not** sign the form.

Why is this research being done?

The purpose of this study is to find out about the chronic pain and pain care of enlisted women

Why are you being asked to take part?

You told us you have pain for at least 3 months and you can answer our questions about chronic pain and pain care.

What will happen during this study?

The procedures, which will involve you as a research subject, include:

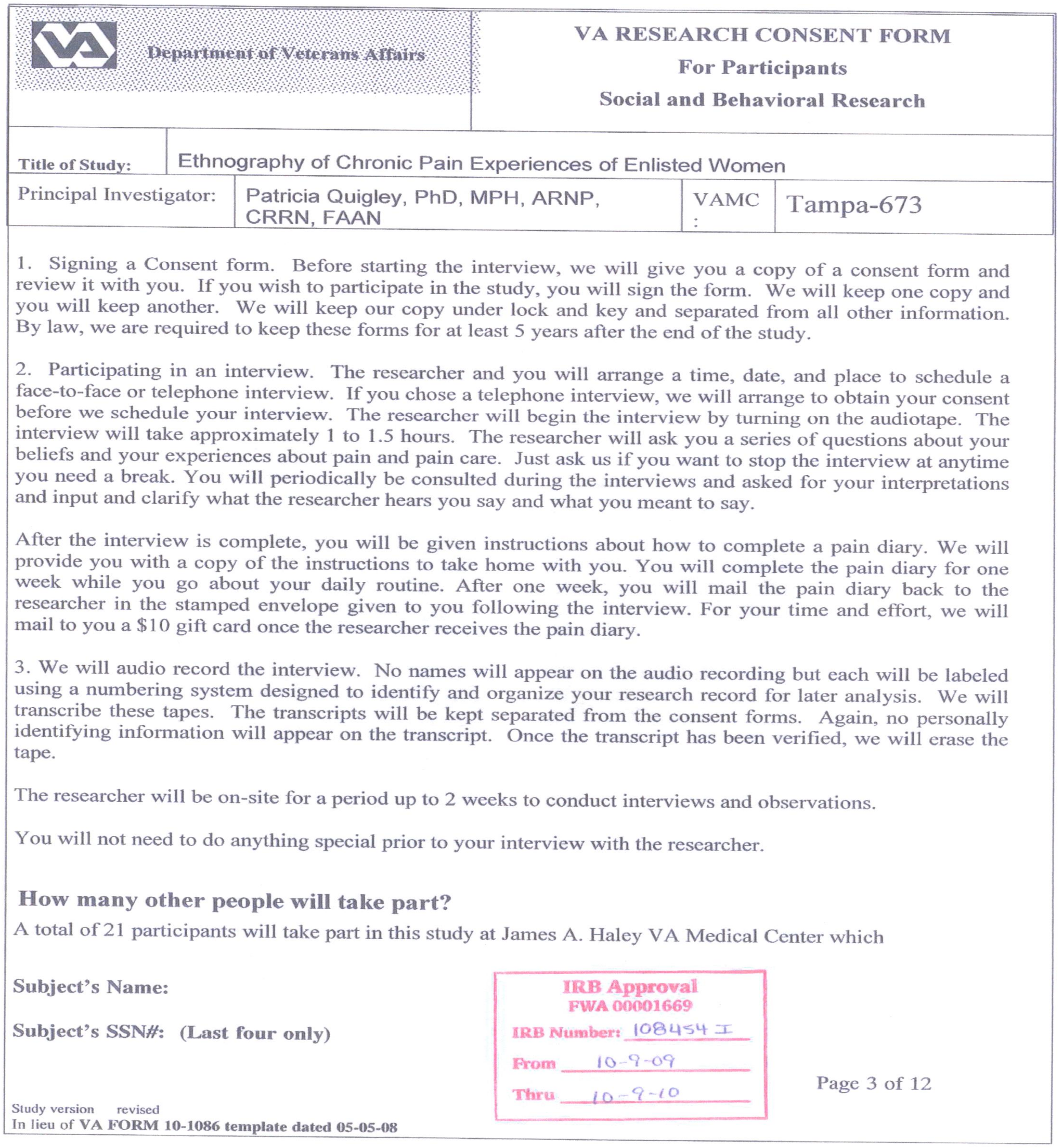
Subject's Name:

Subject's SSN#: (Last four only)

IRB Approval
FWA 00001669
IRB Number: 108454 I
From 10-9-09
Thru 10-9-10

Page 2 of 12

Study version revised
In lieu of **VA FORM 10-1086 template dated 05-05-08**



Department of Veterans Affairs

VA RESEARCH CONSENT FORM
For Participants
Social and Behavioral Research

Title of Study:	Ethnography of Chronic Pain Experiences of Enlisted Women		
Principal Investigator:	Patricia Quigley, PhD, MPH, ARNP, CRRN, FAAN	VAMC:	Tampa-673

1. Signing a Consent form. Before starting the interview, we will give you a copy of a consent form and review it with you. If you wish to participate in the study, you will sign the form. We will keep one copy and you will keep another. We will keep our copy under lock and key and separated from all other information. By law, we are required to keep these forms for at least 5 years after the end of the study.

2. Participating in an interview. The researcher and you will arrange a time, date, and place to schedule a face-to-face or telephone interview. If you chose a telephone interview, we will arrange to obtain your consent before we schedule your interview. The researcher will begin the interview by turning on the audiotape. The interview will take approximately 1 to 1.5 hours. The researcher will ask you a series of questions about your beliefs and your experiences about pain and pain care. Just ask us if you want to stop the interview at anytime you need a break. You will periodically be consulted during the interviews and asked for your interpretations and input and clarify what the researcher hears you say and what you meant to say.

After the interview is complete, you will be given instructions about how to complete a pain diary. We will provide you with a copy of the instructions to take home with you. You will complete the pain diary for one week while you go about your daily routine. After one week, you will mail the pain diary back to the researcher in the stamped envelope given to you following the interview. For your time and effort, we will mail to you a $10 gift card once the researcher receives the pain diary.

3. We will audio record the interview. No names will appear on the audio recording but each will be labeled using a numbering system designed to identify and organize your research record for later analysis. We will transcribe these tapes. The transcripts will be kept separated from the consent forms. Again, no personally identifying information will appear on the transcript. Once the transcript has been verified, we will erase the tape.

The researcher will be on-site for a period up to 2 weeks to conduct interviews and observations.

You will not need to do anything special prior to your interview with the researcher.

How many other people will take part?

A total of 21 participants will take part in this study at James A. Haley VA Medical Center which

Subject's Name:

Subject's SSN#: (Last four only)

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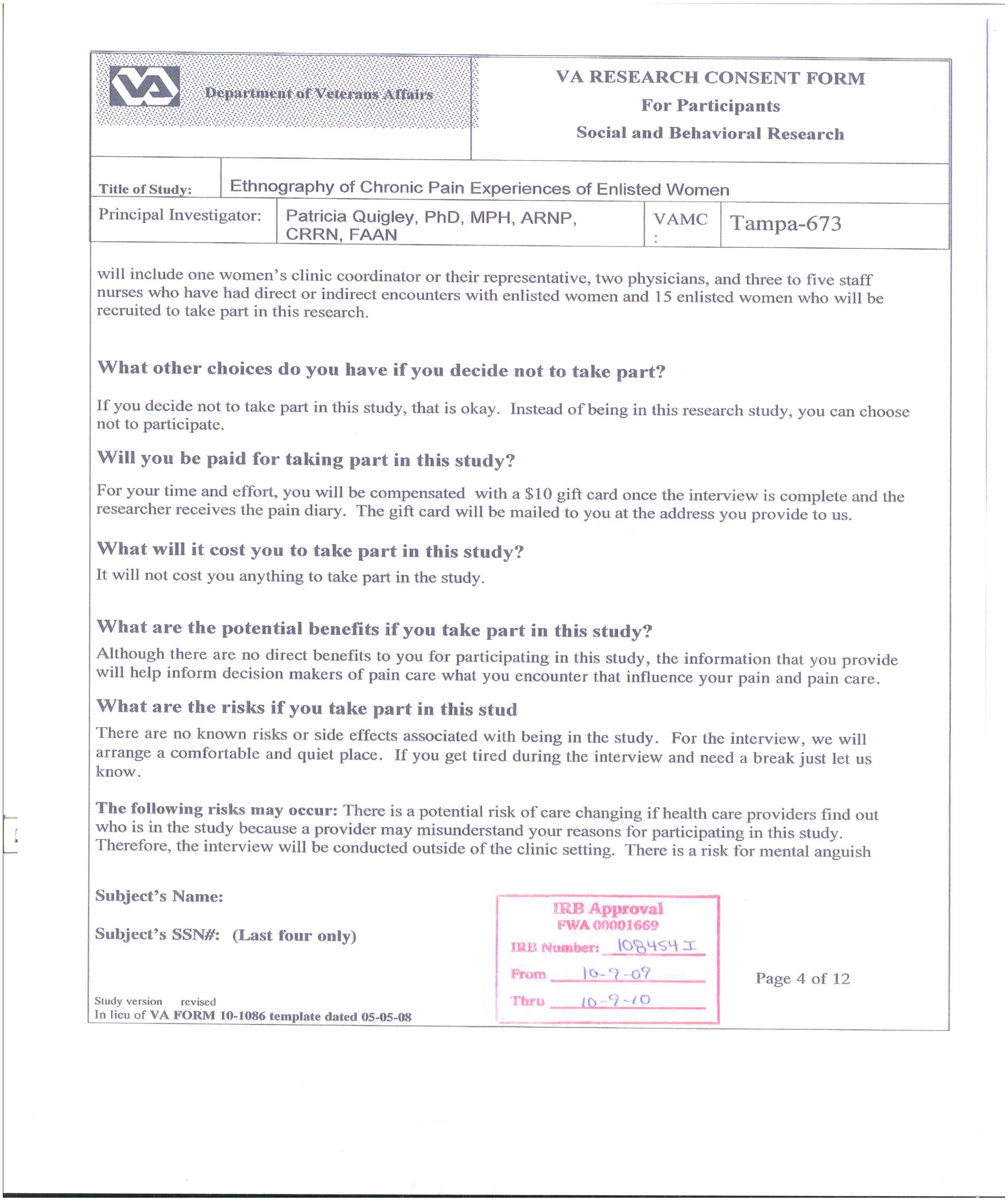

Department of Veterans Affairs

VA RESEARCH CONSENT FORM
For Participants
Social and Behavioral Research

Title of Study:	Ethnography of Chronic Pain Experiences of Enlisted Women		
Principal Investigator:	Patricia Quigley, PhD, MPH, ARNP, CRRN, FAAN	VAMC :	Tampa-673

will include one women's clinic coordinator or their representative, two physicians, and three to five staff nurses who have had direct or indirect encounters with enlisted women and 15 enlisted women who will be recruited to take part in this research.

What other choices do you have if you decide not to take part?

If you decide not to take part in this study, that is okay. Instead of being in this research study, you can choose not to participate.

Will you be paid for taking part in this study?

For your time and effort, you will be compensated with a $10 gift card once the interview is complete and the researcher receives the pain diary. The gift card will be mailed to you at the address you provide to us.

What will it cost you to take part in this study?

It will not cost you anything to take part in the study.

What are the potential benefits if you take part in this study?

Although there are no direct benefits to you for participating in this study, the information that you provide will help inform decision makers of pain care what you encounter that influence your pain and pain care.

What are the risks if you take part in this stud

There are no known risks or side effects associated with being in the study. For the interview, we will arrange a comfortable and quiet place. If you get tired during the interview and need a break just let us know.

The following risks may occur: There is a potential risk of care changing if health care providers find out who is in the study because a provider may misunderstand your reasons for participating in this study. Therefore, the interview will be conducted outside of the clinic setting. There is a risk for mental anguish

Subject's Name:

Subject's SSN#: (Last four only)

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FWA 00001669
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From 10-9-09
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Page 4 of 12

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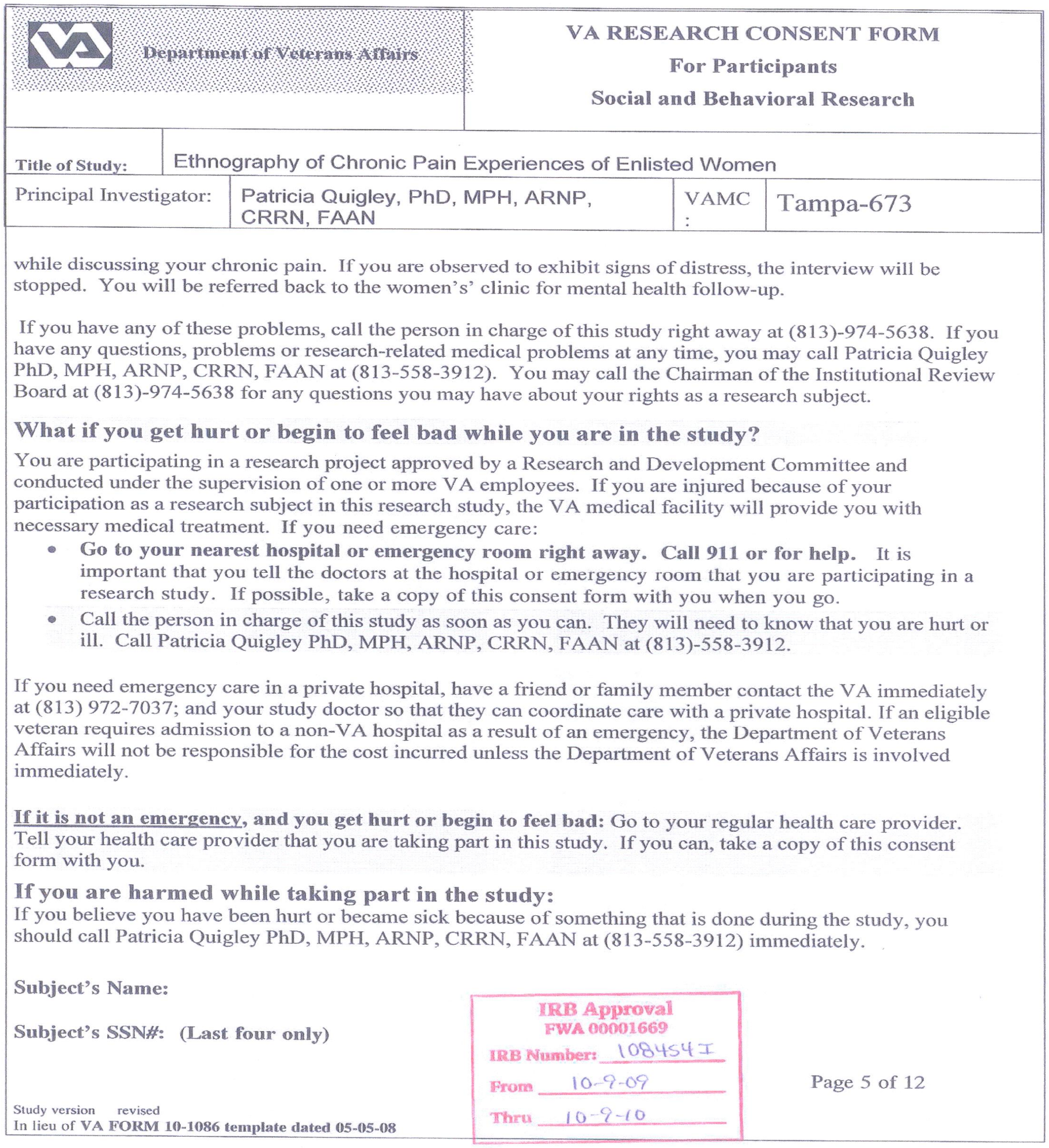

Department of Veterans Affairs

VA RESEARCH CONSENT FORM
For Participants
Social and Behavioral Research

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Principal Investigator:	Patricia Quigley, PhD, MPH, ARNP, CRRN, FAAN	VAMC:	Tampa-673

while discussing your chronic pain. If you are observed to exhibit signs of distress, the interview will be stopped. You will be referred back to the women's' clinic for mental health follow-up.

If you have any of these problems, call the person in charge of this study right away at (813)-974-5638. If you have any questions, problems or research-related medical problems at any time, you may call Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN at (813-558-3912). You may call the Chairman of the Institutional Review Board at (813)-974-5638 for any questions you may have about your rights as a research subject.

What if you get hurt or begin to feel bad while you are in the study?

You are participating in a research project approved by a Research and Development Committee and conducted under the supervision of one or more VA employees. If you are injured because of your participation as a research subject in this research study, the VA medical facility will provide you with necessary medical treatment. If you need emergency care:

- **Go to your nearest hospital or emergency room right away. Call 911 or for help.** It is important that you tell the doctors at the hospital or emergency room that you are participating in a research study. If possible, take a copy of this consent form with you when you go.
- Call the person in charge of this study as soon as you can. They will need to know that you are hurt or ill. Call Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN at (813)-558-3912.

If you need emergency care in a private hospital, have a friend or family member contact the VA immediately at (813) 972-7037; and your study doctor so that they can coordinate care with a private hospital. If an eligible veteran requires admission to a non-VA hospital as a result of an emergency, the Department of Veterans Affairs will not be responsible for the cost incurred unless the Department of Veterans Affairs is involved immediately.

<u>If it is not an emergency</u>, and you get hurt or begin to feel bad: Go to your regular health care provider. Tell your health care provider that you are taking part in this study. If you can, take a copy of this consent form with you.

If you are harmed while taking part in the study:

If you believe you have been hurt or became sick because of something that is done during the study, you should call Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN at (813-558-3912) immediately.

Subject's Name:

Subject's SSN#: (Last four only)

IRB Approval
FWA 00001669
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Page 5 of 12

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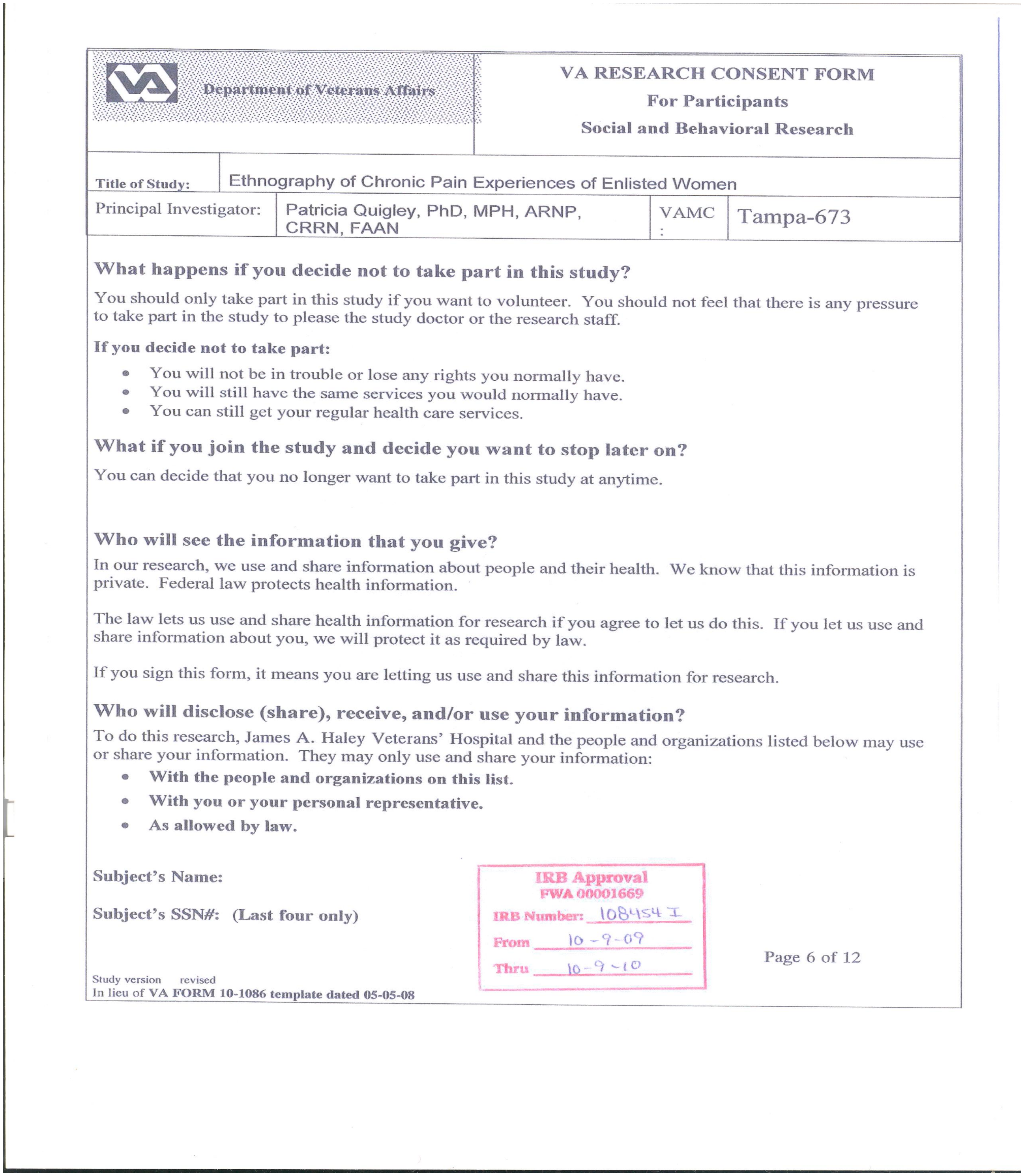

Department of Veterans Affairs

VA RESEARCH CONSENT FORM
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What happens if you decide not to take part in this study?

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study to please the study doctor or the research staff.

If you decide not to take part:

- You will not be in trouble or lose any rights you normally have.
- You will still have the same services you would normally have.
- You can still get your regular health care services.

What if you join the study and decide you want to stop later on?

You can decide that you no longer want to take part in this study at anytime.

Who will see the information that you give?

In our research, we use and share information about people and their health. We know that this information is private. Federal law protects health information.

The law lets us use and share health information for research if you agree to let us do this. If you let us use and share information about you, we will protect it as required by law.

If you sign this form, it means you are letting us use and share this information for research.

Who will disclose (share), receive, and/or use your information?

To do this research, James A. Haley Veterans' Hospital and the people and organizations listed below may use or share your information. They may only use and share your information:

- **With the people and organizations on this list.**
- **With you or your personal representative.**
- **As allowed by law.**

Subject's Name:

Subject's SSN#: (Last four only)

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Page 6 of 12

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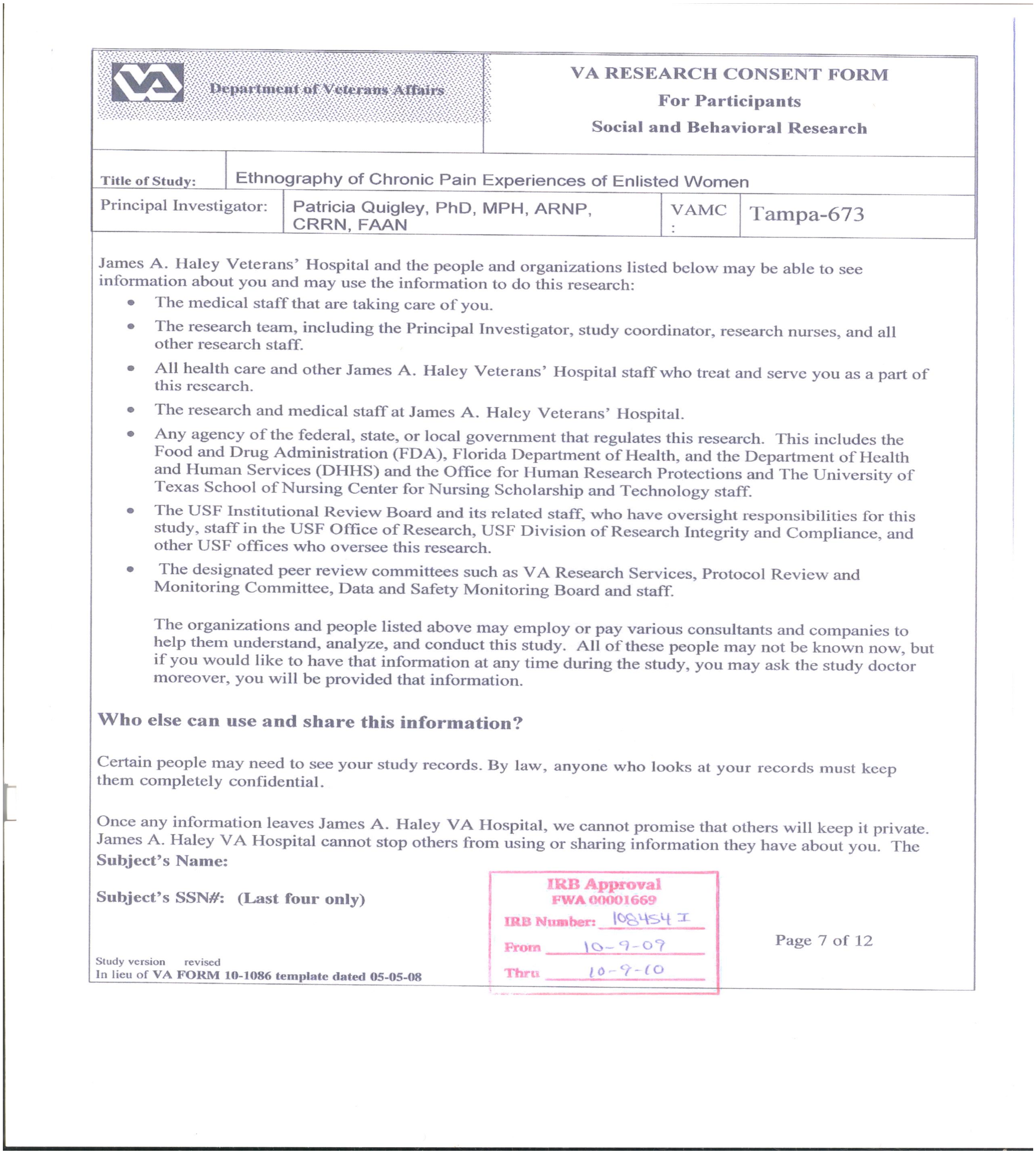

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James A. Haley Veterans' Hospital and the people and organizations listed below may be able to see information about you and may use the information to do this research:

- The medical staff that are taking care of you.
- The research team, including the Principal Investigator, study coordinator, research nurses, and all other research staff.
- All health care and other James A. Haley Veterans' Hospital staff who treat and serve you as a part of this research.
- The research and medical staff at James A. Haley Veterans' Hospital.
- Any agency of the federal, state, or local government that regulates this research. This includes the Food and Drug Administration (FDA), Florida Department of Health, and the Department of Health and Human Services (DHHS) and the Office for Human Research Protections and The University of Texas School of Nursing Center for Nursing Scholarship and Technology staff.
- The USF Institutional Review Board and its related staff, who have oversight responsibilities for this study, staff in the USF Office of Research, USF Division of Research Integrity and Compliance, and other USF offices who oversee this research.
- The designated peer review committees such as VA Research Services, Protocol Review and Monitoring Committee, Data and Safety Monitoring Board and staff.

The organizations and people listed above may employ or pay various consultants and companies to help them understand, analyze, and conduct this study. All of these people may not be known now, but if you would like to have that information at any time during the study, you may ask the study doctor moreover, you will be provided that information.

Who else can use and share this information?

Certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential.

Once any information leaves James A. Haley VA Hospital, we cannot promise that others will keep it private. James A. Haley VA Hospital cannot stop others from using or sharing information they have about you. The

Subject's Name:

Subject's SSN#: (Last four only)

IRB Approval
FWA 00001669
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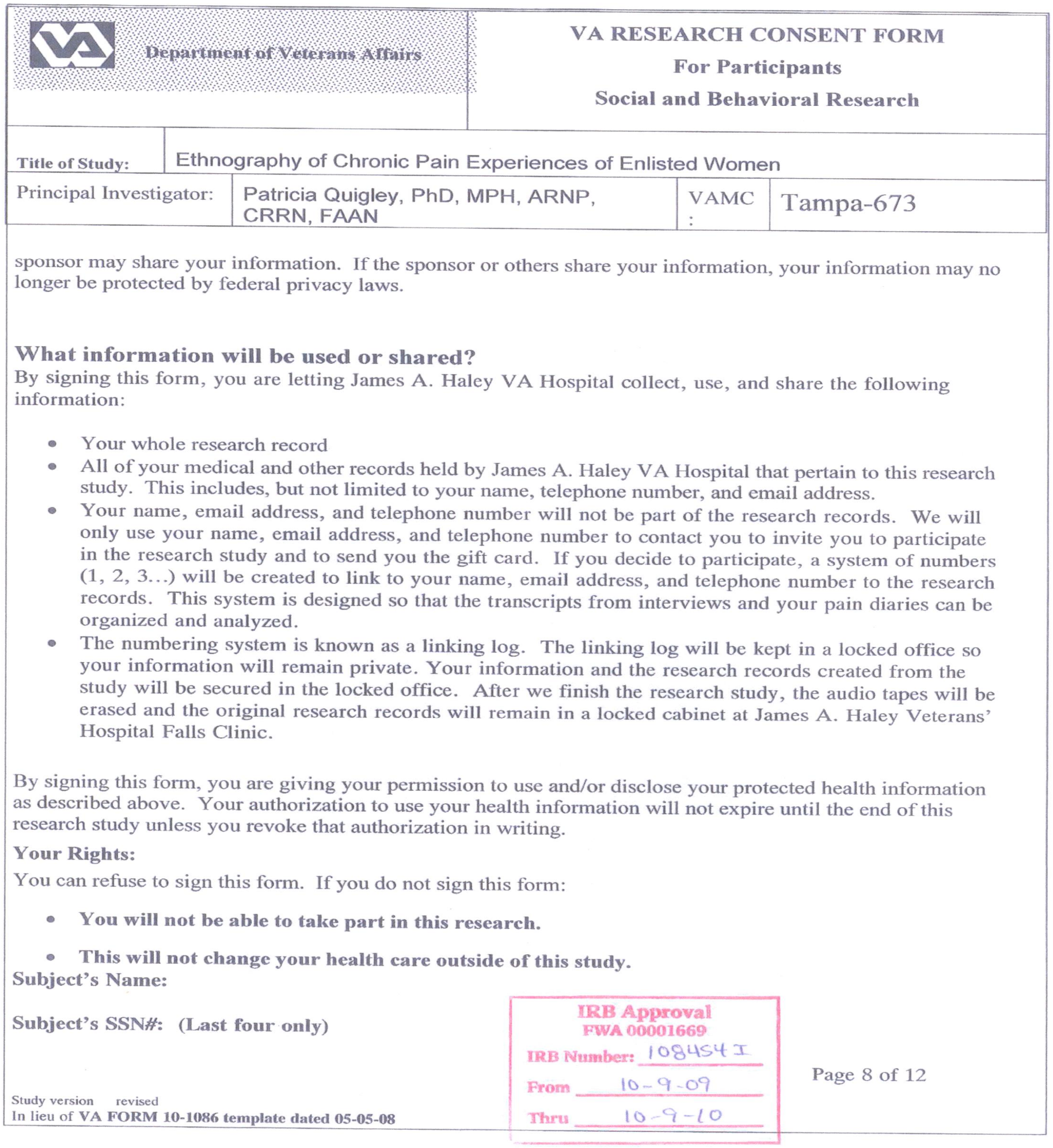

Department of Veterans Affairs

VA RESEARCH CONSENT FORM
For Participants
Social and Behavioral Research

Title of Study:	Ethnography of Chronic Pain Experiences of Enlisted Women		
Principal Investigator:	Patricia Quigley, PhD, MPH, ARNP, CRRN, FAAN	VAMC:	Tampa-673

sponsor may share your information. If the sponsor or others share your information, your information may no longer be protected by federal privacy laws.

What information will be used or shared?

By signing this form, you are letting James A. Haley VA Hospital collect, use, and share the following information:

- Your whole research record
- All of your medical and other records held by James A. Haley VA Hospital that pertain to this research study. This includes, but not limited to your name, telephone number, and email address.
- Your name, email address, and telephone number will not be part of the research records. We will only use your name, email address, and telephone number to contact you to invite you to participate in the research study and to send you the gift card. If you decide to participate, a system of numbers (1, 2, 3…) will be created to link to your name, email address, and telephone number to the research records. This system is designed so that the transcripts from interviews and your pain diaries can be organized and analyzed.
- The numbering system is known as a linking log. The linking log will be kept in a locked office so your information will remain private. Your information and the research records created from the study will be secured in the locked office. After we finish the research study, the audio tapes will be erased and the original research records will remain in a locked cabinet at James A. Haley Veterans' Hospital Falls Clinic.

By signing this form, you are giving your permission to use and/or disclose your protected health information as described above. Your authorization to use your health information will not expire until the end of this research study unless you revoke that authorization in writing.

Your Rights:

You can refuse to sign this form. If you do not sign this form:

- **You will not be able to take part in this research.**
- **This will not change your health care outside of this study.**

Subject's Name:

Subject's SSN#: (Last four only)

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- **This will not change your health care benefits.**
- **This will not change the costs of your health care.**

How Do I Withdraw Permission to Use My Information?

You can revoke this form at any time. This means you can tell James A. Haley VA Hospital to stop using and sharing your information. If you revoke this form:

- **You will no longer be a participant in this research study.**
- **The information that we have collected before you tell us to stop may already have been used or shared, or we may need it to complete the research so you cannot withdraw that information.**
- **Staff may follow-up with you if there is a medical reason to do so.**

To revoke this form, you must tell us in writing. To revoke your authorization, you must write to the Release of Information Office at this facility or you can ask a member of the research team to give you a form to revoke the authorization. Your request will be valid when the Release of Information Office receives it. If you revoke this authorization, you will not be able to continue to participate in the study.

If you revoke this authorization, your research doctor or staff can continue to use information about you that was collected before receipt of the revocation. The research team will not collect information about you after you revoke the authorization.

While we are doing this research, we cannot let you see or copy the research information we have about you. After the research is done, you have a right to see and copy the information about you, as allowed by James A. Haley Veterans' Hospital policies.

The VHA complies with the requirements of the Health Insurance Portability and Accountability Act of 1996 and its privacy regulations and all other applicable laws that protect your privacy. We will protect your information according to these laws. Despite these protections, there is a possibility that your information could be used or disclosed in a way that it will no longer be protected. Our Notice of Privacy Practices (a separate document) provides more information on how we protect your information. If you do not have a copy or would like a copy of the Notice, the research team will provide one to you.

Subject's Name:

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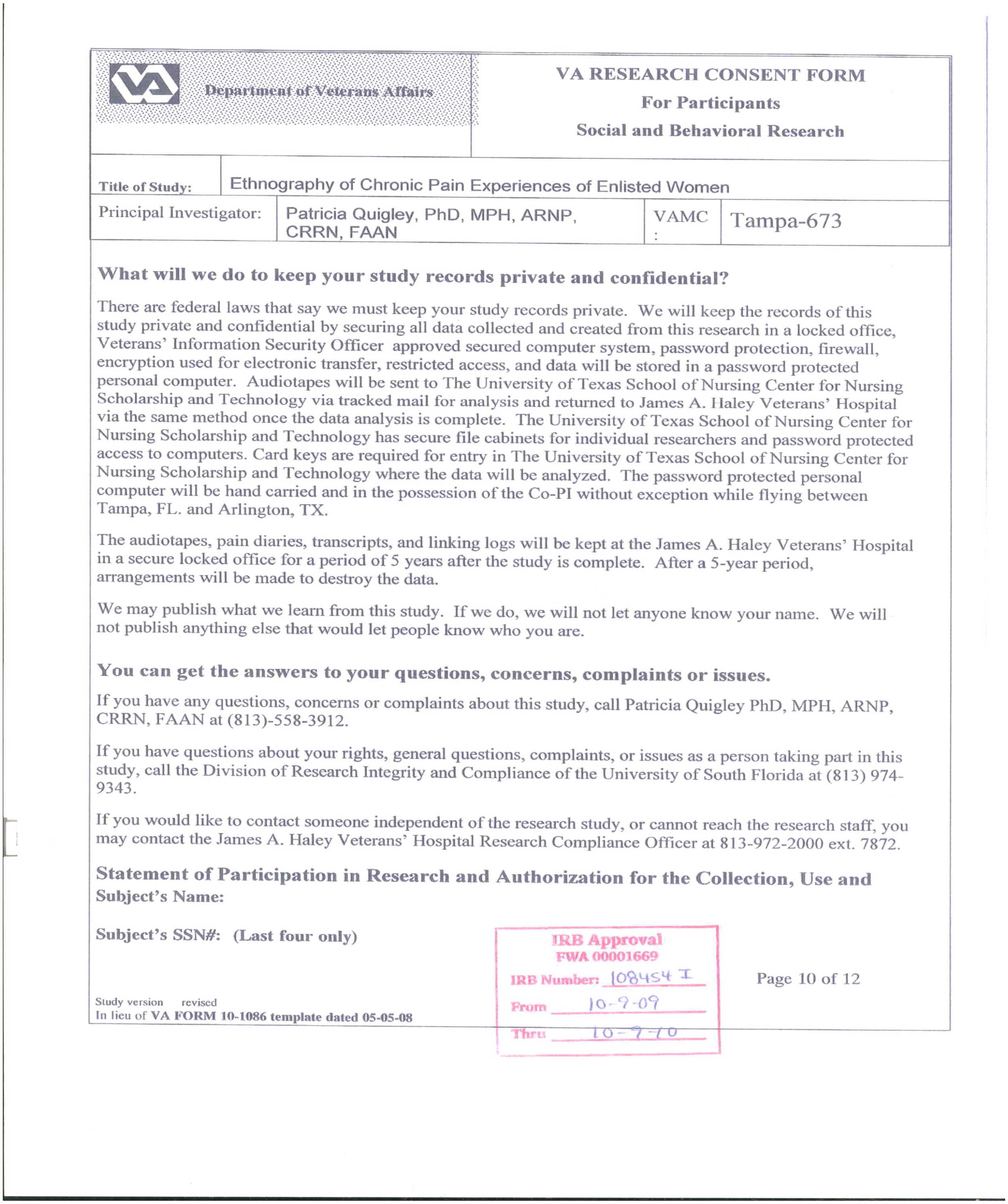

Department of Veterans Affairs	**VA RESEARCH CONSENT FORM** **For Participants** **Social and Behavioral Research**

Title of Study:	Ethnography of Chronic Pain Experiences of Enlisted Women		
Principal Investigator:	Patricia Quigley, PhD, MPH, ARNP, CRRN, FAAN	VAMC:	Tampa-673

What will we do to keep your study records private and confidential?

There are federal laws that say we must keep your study records private. We will keep the records of this study private and confidential by securing all data collected and created from this research in a locked office, Veterans' Information Security Officer approved secured computer system, password protection, firewall, encryption used for electronic transfer, restricted access, and data will be stored in a password protected personal computer. Audiotapes will be sent to The University of Texas School of Nursing Center for Nursing Scholarship and Technology via tracked mail for analysis and returned to James A. Haley Veterans' Hospital via the same method once the data analysis is complete. The University of Texas School of Nursing Center for Nursing Scholarship and Technology has secure file cabinets for individual researchers and password protected access to computers. Card keys are required for entry in The University of Texas School of Nursing Center for Nursing Scholarship and Technology where the data will be analyzed. The password protected personal computer will be hand carried and in the possession of the Co-PI without exception while flying between Tampa, FL. and Arlington, TX.

The audiotapes, pain diaries, transcripts, and linking logs will be kept at the James A. Haley Veterans' Hospital in a secure locked office for a period of 5 years after the study is complete. After a 5-year period, arrangements will be made to destroy the data.

We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are.

You can get the answers to your questions, concerns, complaints or issues.

If you have any questions, concerns or complaints about this study, call Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN at (813)-558-3912.

If you have questions about your rights, general questions, complaints, or issues as a person taking part in this study, call the Division of Research Integrity and Compliance of the University of South Florida at (813) 974-9343.

If you would like to contact someone independent of the research study, or cannot reach the research staff, you may contact the James A. Haley Veterans' Hospital Research Compliance Officer at 813-972-2000 ext. 7872.

Statement of Participation in Research and Authorization for the Collection, Use and

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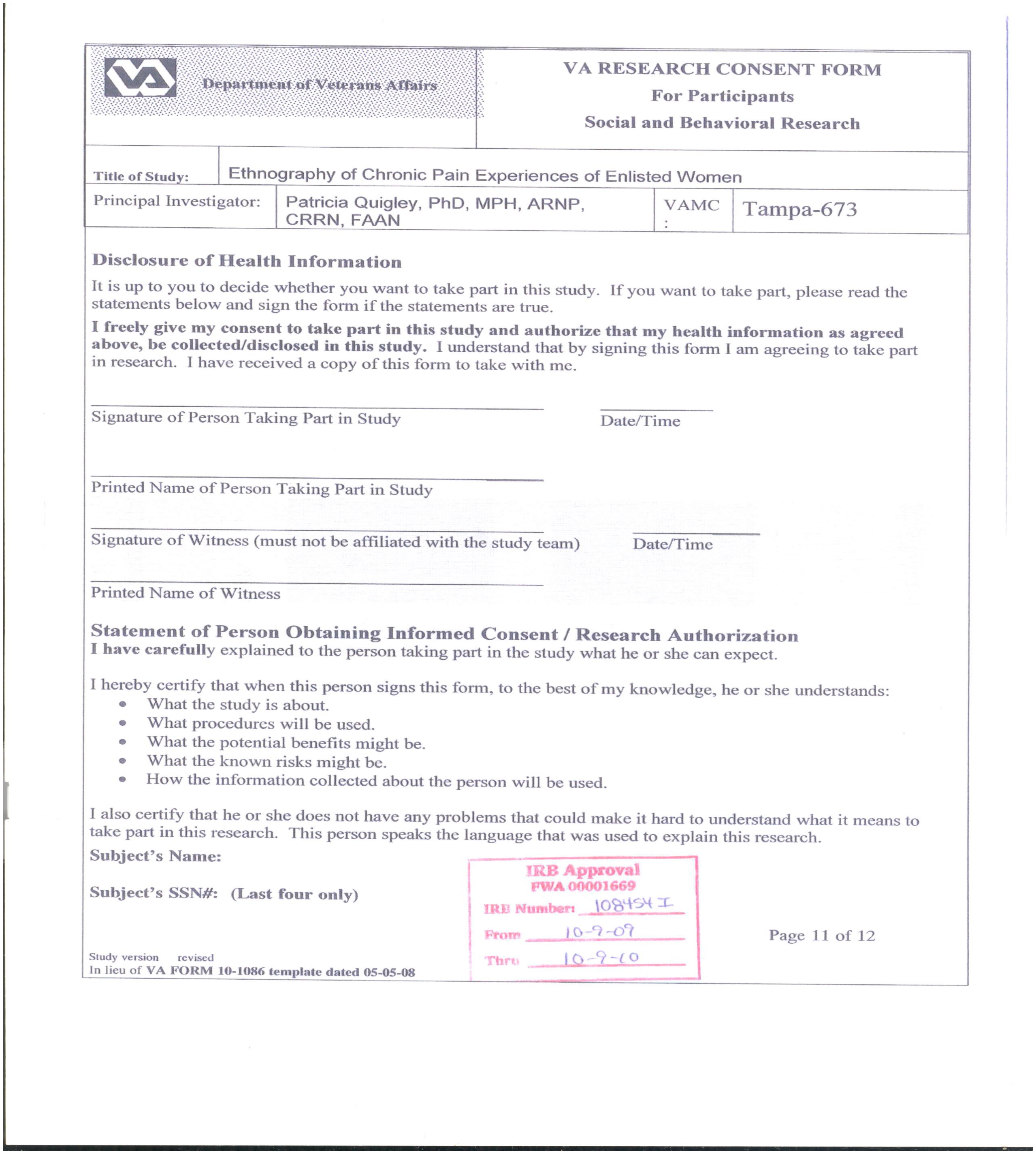

Department of Veterans Affairs

VA RESEARCH CONSENT FORM
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Disclosure of Health Information

It is up to you to decide whether you want to take part in this study. If you want to take part, please read the statements below and sign the form if the statements are true.

I freely give my consent to take part in this study and authorize that my health information as agreed above, be collected/disclosed in this study. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

____________________________________ ____________
Signature of Person Taking Part in Study Date/Time

____
Printed Name of Person Taking Part in Study

____________________________________ ____________
Signature of Witness (must not be affiliated with the study team) Date/Time

____
Printed Name of Witness

Statement of Person Obtaining Informed Consent / Research Authorization

I have carefully explained to the person taking part in the study what he or she can expect.

I hereby certify that when this person signs this form, to the best of my knowledge, he or she understands:

- What the study is about.
- What procedures will be used.
- What the potential benefits might be.
- What the known risks might be.
- How the information collected about the person will be used.

I also certify that he or she does not have any problems that could make it hard to understand what it means to take part in this research. This person speaks the language that was used to explain this research.

Subject's Name:

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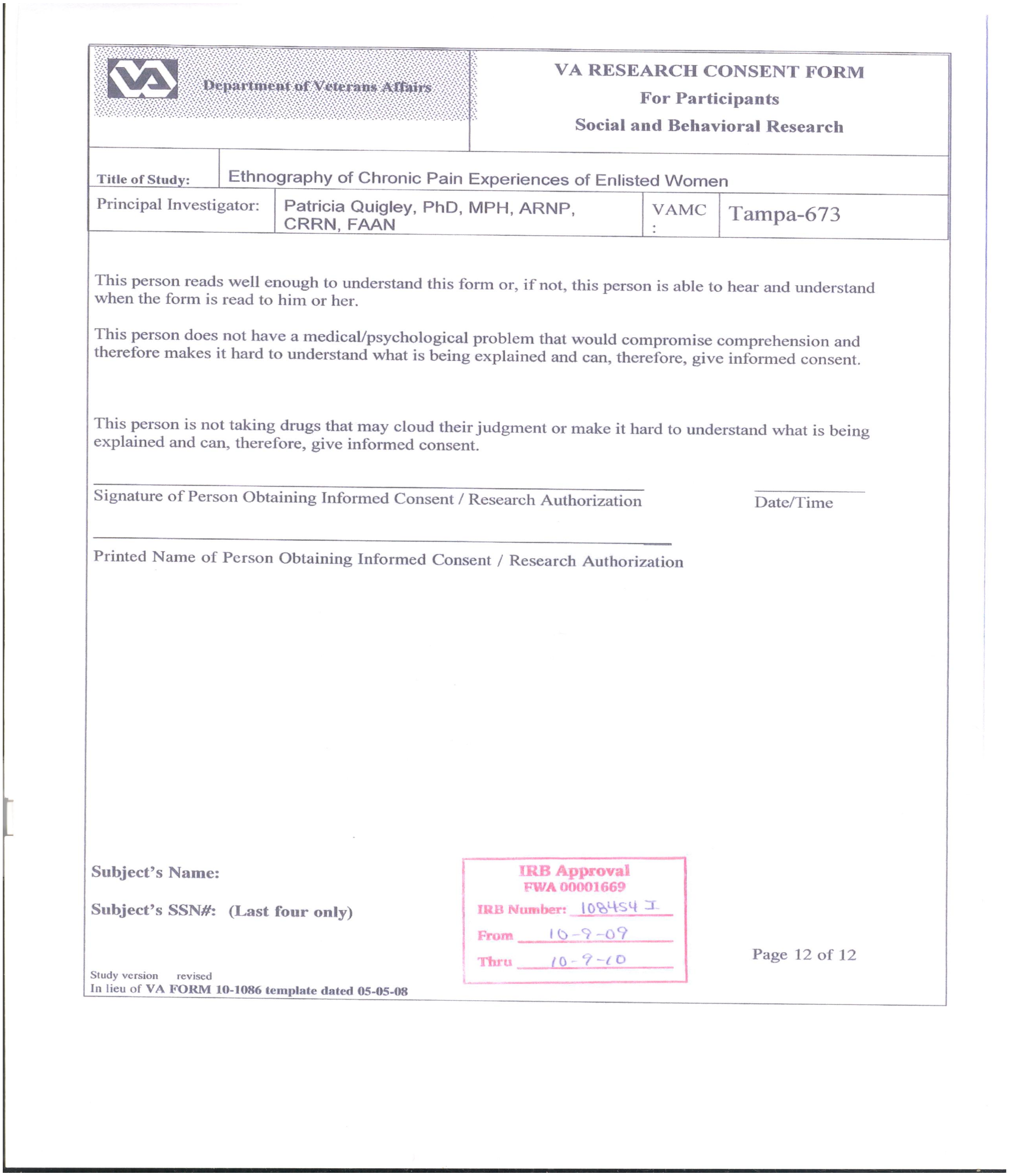

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This person reads well enough to understand this form or, if not, this person is able to hear and understand when the form is read to him or her.

This person does not have a medical/psychological problem that would compromise comprehension and therefore makes it hard to understand what is being explained and can, therefore, give informed consent.

This person is not taking drugs that may cloud their judgment or make it hard to understand what is being explained and can, therefore, give informed consent.

____ ____________
Signature of Person Obtaining Informed Consent / Research Authorization Date/Time

____
Printed Name of Person Obtaining Informed Consent / Research Authorization

Subject's Name:

Subject's SSN#: (Last four only)

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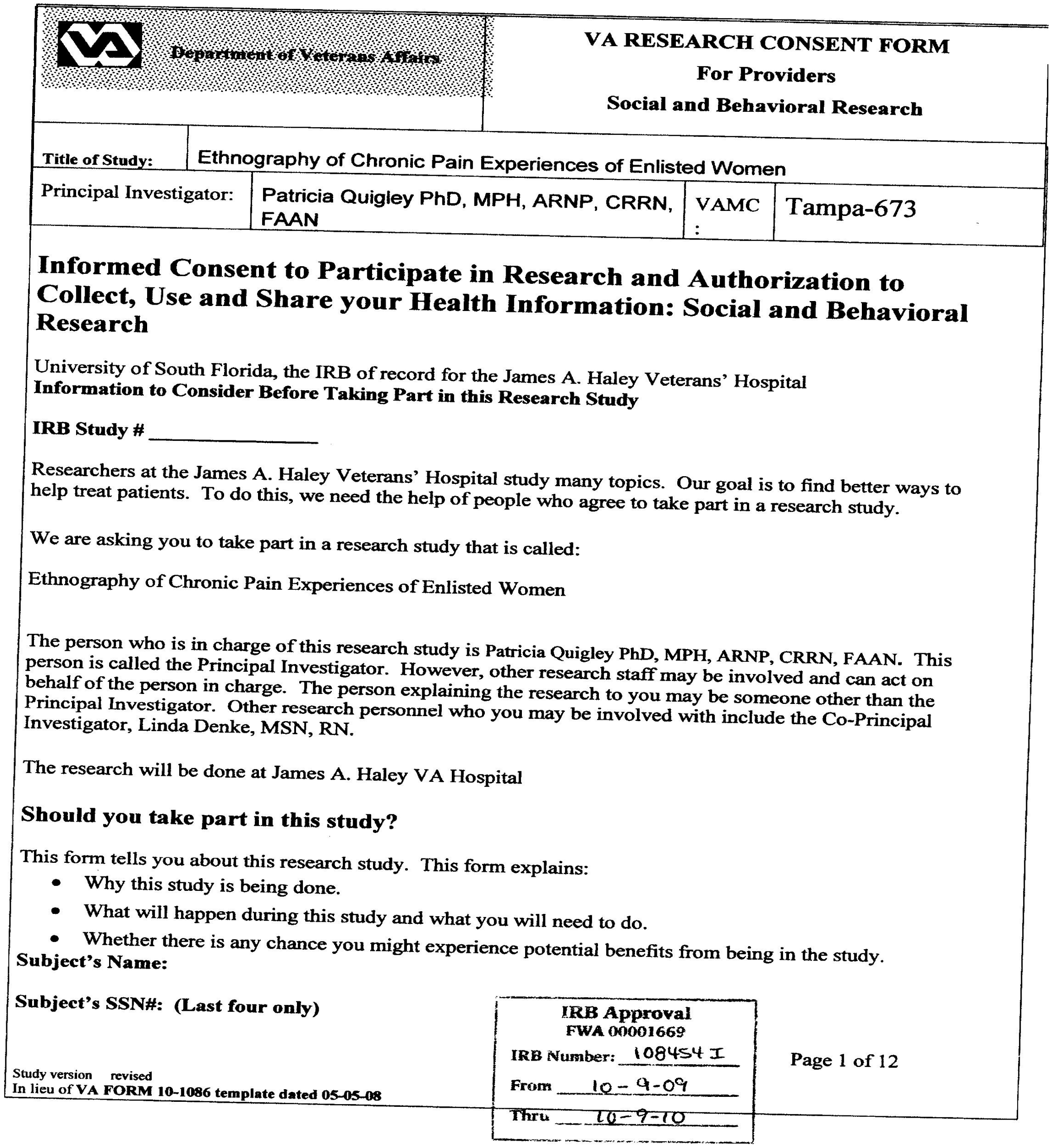

Department of Veterans Affairs

VA RESEARCH CONSENT FORM
For Providers
Social and Behavioral Research

Title of Study:	Ethnography of Chronic Pain Experiences of Enlisted Women		
Principal Investigator:	Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN	VAMC:	Tampa-673

Informed Consent to Participate in Research and Authorization to Collect, Use and Share your Health Information: Social and Behavioral Research

University of South Florida, the IRB of record for the James A. Haley Veterans' Hospital
Information to Consider Before Taking Part in this Research Study

IRB Study # _______________

Researchers at the James A. Haley Veterans' Hospital study many topics. Our goal is to find better ways to help treat patients. To do this, we need the help of people who agree to take part in a research study.

We are asking you to take part in a research study that is called:

Ethnography of Chronic Pain Experiences of Enlisted Women

The person who is in charge of this research study is Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN. This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge. The person explaining the research to you may be someone other than the Principal Investigator. Other research personnel who you may be involved with include the Co-Principal Investigator, Linda Denke, MSN, RN.

The research will be done at James A. Haley VA Hospital

Should you take part in this study?

This form tells you about this research study. This form explains:

- Why this study is being done.
- What will happen during this study and what you will need to do.
- Whether there is any chance you might experience potential benefits from being in the study.

Subject's Name:

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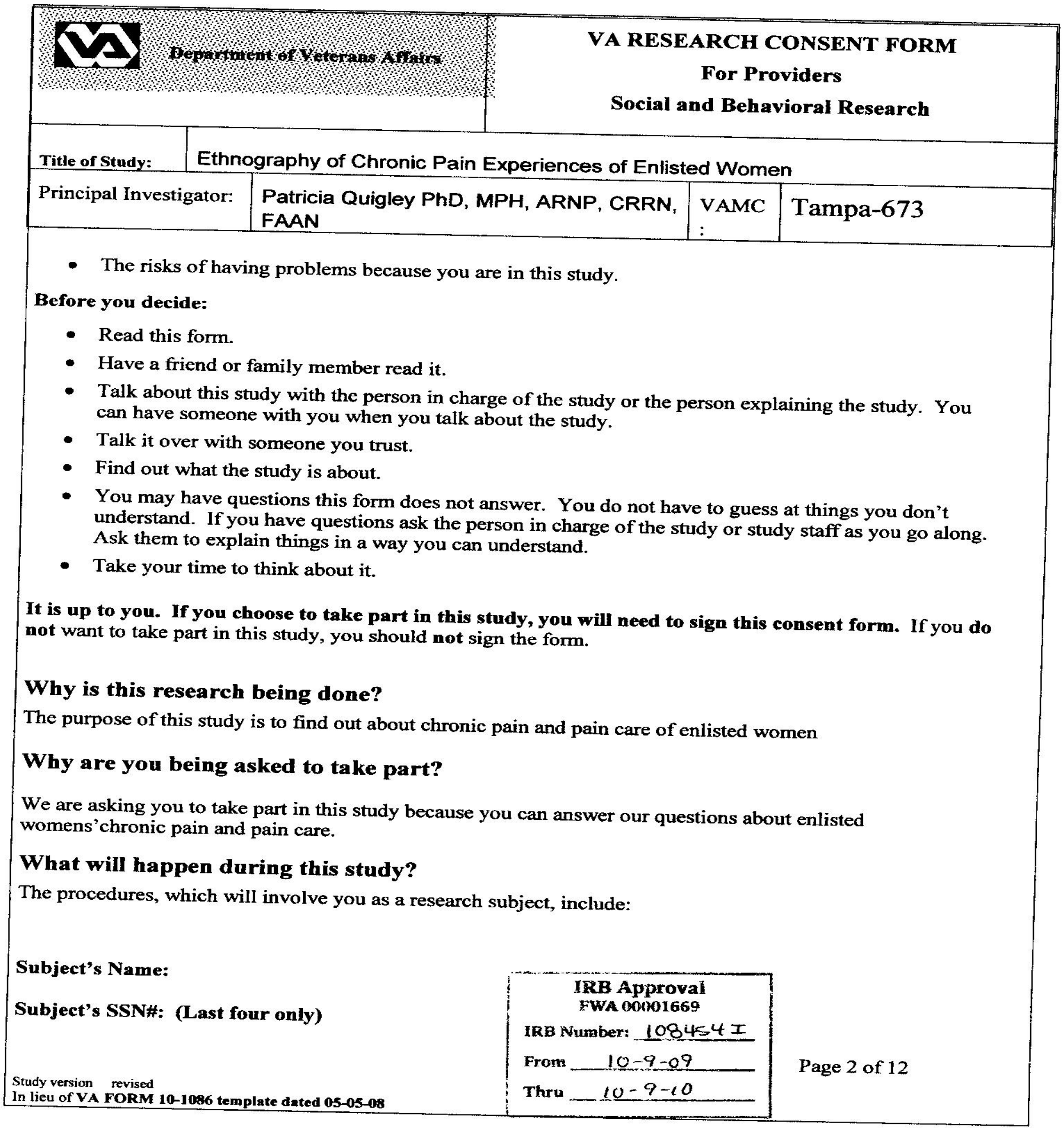

Department of Veterans Affairs

VA RESEARCH CONSENT FORM
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- The risks of having problems because you are in this study.

Before you decide:

- Read this form.
- Have a friend or family member read it.
- Talk about this study with the person in charge of the study or the person explaining the study. You can have someone with you when you talk about the study.
- Talk it over with someone you trust.
- Find out what the study is about.
- You may have questions this form does not answer. You do not have to guess at things you don't understand. If you have questions ask the person in charge of the study or study staff as you go along. Ask them to explain things in a way you can understand.
- Take your time to think about it.

It is up to you. If you choose to take part in this study, you will need to sign this consent form. If you do not want to take part in this study, you should **not** sign the form.

Why is this research being done?

The purpose of this study is to find out about chronic pain and pain care of enlisted women

Why are you being asked to take part?

We are asking you to take part in this study because you can answer our questions about enlisted womens'chronic pain and pain care.

What will happen during this study?

The procedures, which will involve you as a research subject, include:

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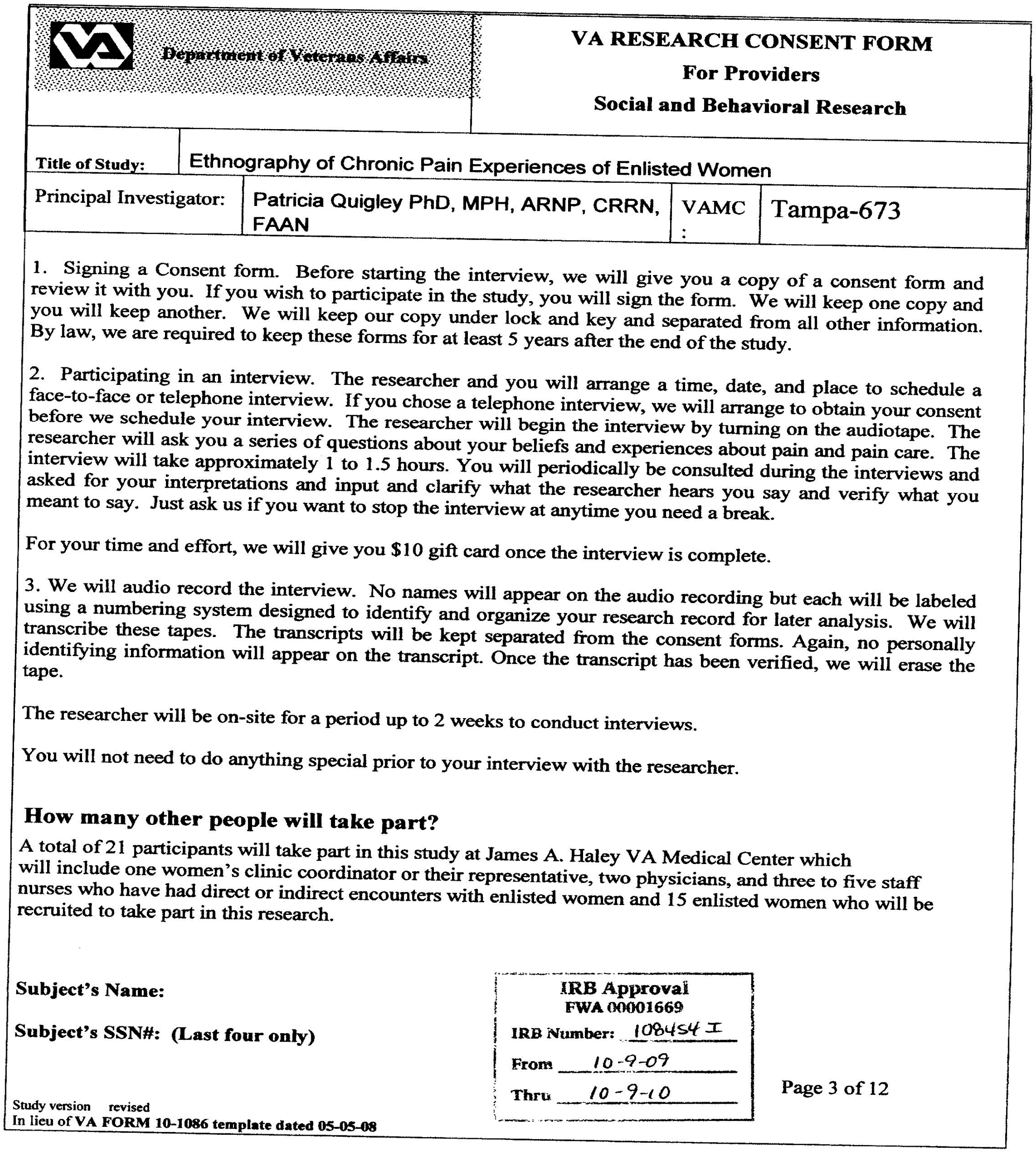

Department of Veterans Affairs	**VA RESEARCH CONSENT FORM** **For Providers** **Social and Behavioral Research**		
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Principal Investigator:	Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN	VAMC:	Tampa-673

1. Signing a Consent form. Before starting the interview, we will give you a copy of a consent form and review it with you. If you wish to participate in the study, you will sign the form. We will keep one copy and you will keep another. We will keep our copy under lock and key and separated from all other information. By law, we are required to keep these forms for at least 5 years after the end of the study.

2. Participating in an interview. The researcher and you will arrange a time, date, and place to schedule a face-to-face or telephone interview. If you chose a telephone interview, we will arrange to obtain your consent before we schedule your interview. The researcher will begin the interview by turning on the audiotape. The researcher will ask you a series of questions about your beliefs and experiences about pain and pain care. The interview will take approximately 1 to 1.5 hours. You will periodically be consulted during the interviews and asked for your interpretations and input and clarify what the researcher hears you say and verify what you meant to say. Just ask us if you want to stop the interview at anytime you need a break.

For your time and effort, we will give you $10 gift card once the interview is complete.

3. We will audio record the interview. No names will appear on the audio recording but each will be labeled using a numbering system designed to identify and organize your research record for later analysis. We will transcribe these tapes. The transcripts will be kept separated from the consent forms. Again, no personally identifying information will appear on the transcript. Once the transcript has been verified, we will erase the tape.

The researcher will be on-site for a period up to 2 weeks to conduct interviews.

You will not need to do anything special prior to your interview with the researcher.

How many other people will take part?

A total of 21 participants will take part in this study at James A. Haley VA Medical Center which will include one women's clinic coordinator or their representative, two physicians, and three to five staff nurses who have had direct or indirect encounters with enlisted women and 15 enlisted women who will be recruited to take part in this research.

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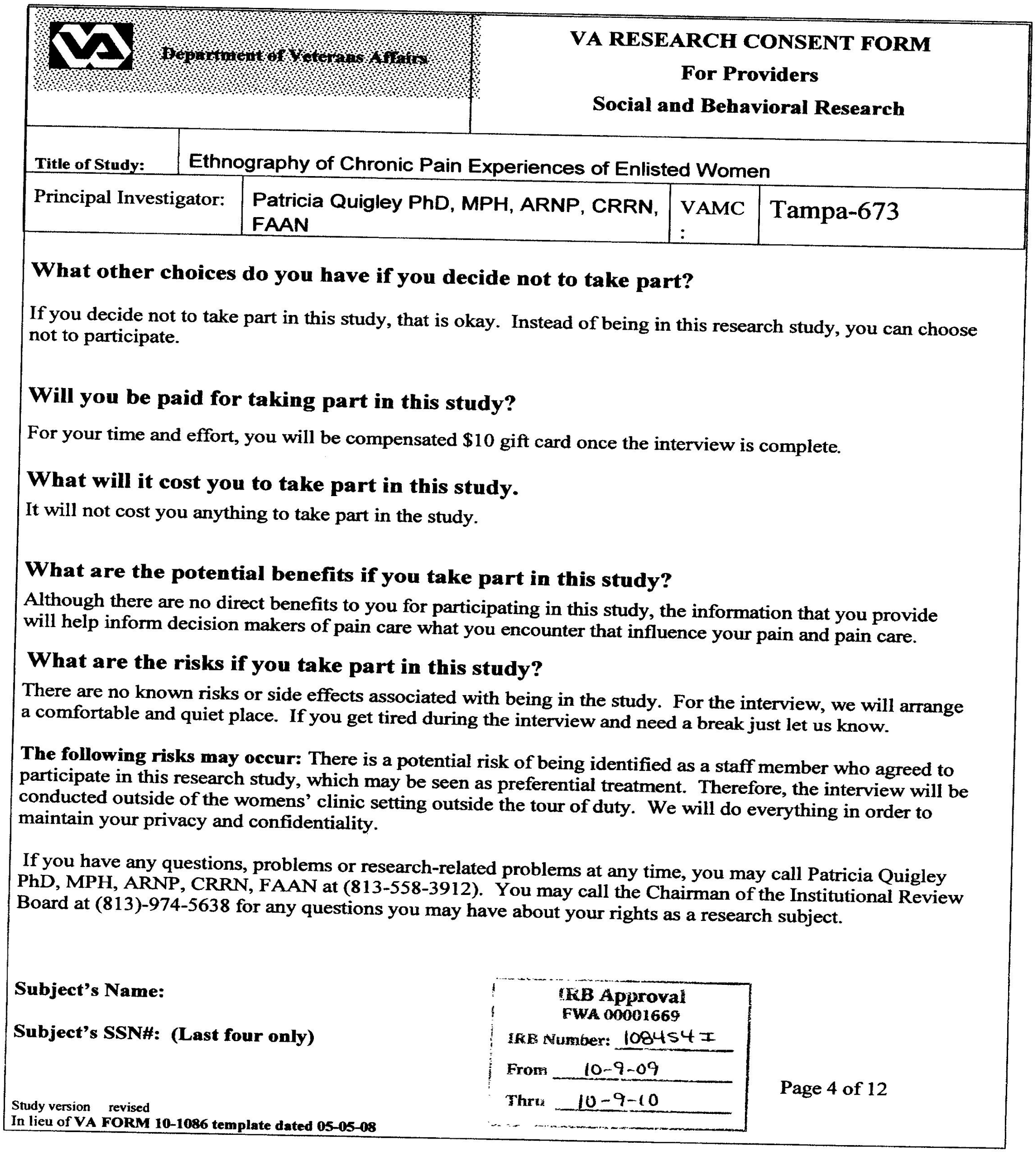

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What other choices do you have if you decide not to take part?

If you decide not to take part in this study, that is okay. Instead of being in this research study, you can choose not to participate.

Will you be paid for taking part in this study?

For your time and effort, you will be compensated $10 gift card once the interview is complete.

What will it cost you to take part in this study.

It will not cost you anything to take part in the study.

What are the potential benefits if you take part in this study?

Although there are no direct benefits to you for participating in this study, the information that you provide will help inform decision makers of pain care what you encounter that influence your pain and pain care.

What are the risks if you take part in this study?

There are no known risks or side effects associated with being in the study. For the interview, we will arrange a comfortable and quiet place. If you get tired during the interview and need a break just let us know.

The following risks may occur: There is a potential risk of being identified as a staff member who agreed to participate in this research study, which may be seen as preferential treatment. Therefore, the interview will be conducted outside of the womens' clinic setting outside the tour of duty. We will do everything in order to maintain your privacy and confidentiality.

If you have any questions, problems or research-related problems at any time, you may call Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN at (813-558-3912). You may call the Chairman of the Institutional Review Board at (813)-974-5638 for any questions you may have about your rights as a research subject.

Subject's Name:

Subject's SSN#: (Last four only)

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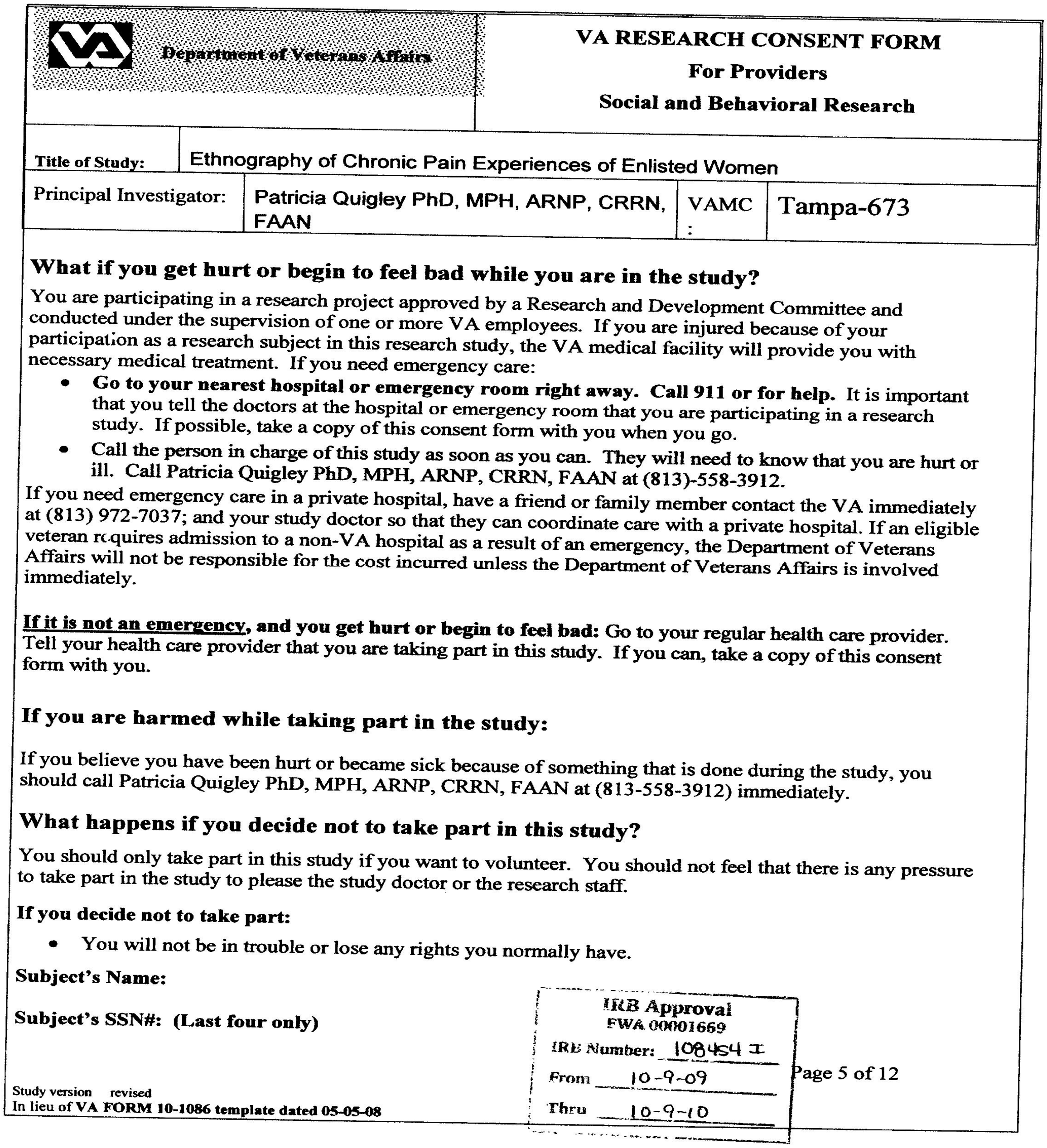

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What if you get hurt or begin to feel bad while you are in the study?

You are participating in a research project approved by a Research and Development Committee and conducted under the supervision of one or more VA employees. If you are injured because of your participation as a research subject in this research study, the VA medical facility will provide you with necessary medical treatment. If you need emergency care:

- **Go to your nearest hospital or emergency room right away. Call 911 or for help.** It is important that you tell the doctors at the hospital or emergency room that you are participating in a research study. If possible, take a copy of this consent form with you when you go.
- Call the person in charge of this study as soon as you can. They will need to know that you are hurt or ill. Call Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN at (813)-558-3912.

If you need emergency care in a private hospital, have a friend or family member contact the VA immediately at (813) 972-7037; and your study doctor so that they can coordinate care with a private hospital. If an eligible veteran requires admission to a non-VA hospital as a result of an emergency, the Department of Veterans Affairs will not be responsible for the cost incurred unless the Department of Veterans Affairs is involved immediately.

If it is not an emergency, and you get hurt or begin to feel bad: Go to your regular health care provider. Tell your health care provider that you are taking part in this study. If you can, take a copy of this consent form with you.

If you are harmed while taking part in the study:

If you believe you have been hurt or became sick because of something that is done during the study, you should call Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN at (813-558-3912) immediately.

What happens if you decide not to take part in this study?

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study to please the study doctor or the research staff.

If you decide not to take part:

- You will not be in trouble or lose any rights you normally have.

Subject's Name:

Subject's SSN#: (Last four only)

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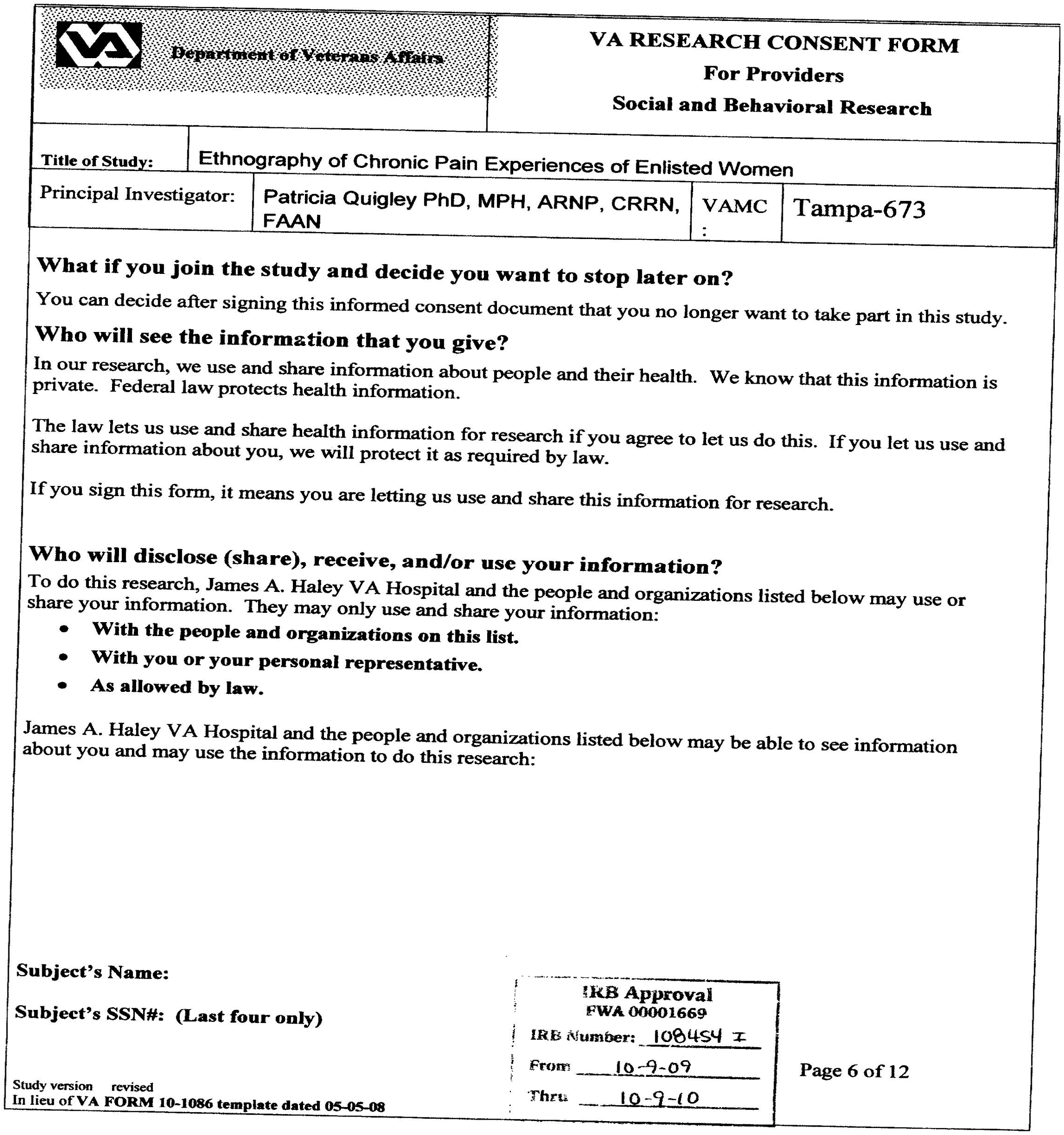

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What if you join the study and decide you want to stop later on?

You can decide after signing this informed consent document that you no longer want to take part in this study.

Who will see the information that you give?

In our research, we use and share information about people and their health. We know that this information is private. Federal law protects health information.

The law lets us use and share health information for research if you agree to let us do this. If you let us use and share information about you, we will protect it as required by law.

If you sign this form, it means you are letting us use and share this information for research.

Who will disclose (share), receive, and/or use your information?

To do this research, James A. Haley VA Hospital and the people and organizations listed below may use or share your information. They may only use and share your information:

- **With the people and organizations on this list.**
- **With you or your personal representative.**
- **As allowed by law.**

James A. Haley VA Hospital and the people and organizations listed below may be able to see information about you and may use the information to do this research:

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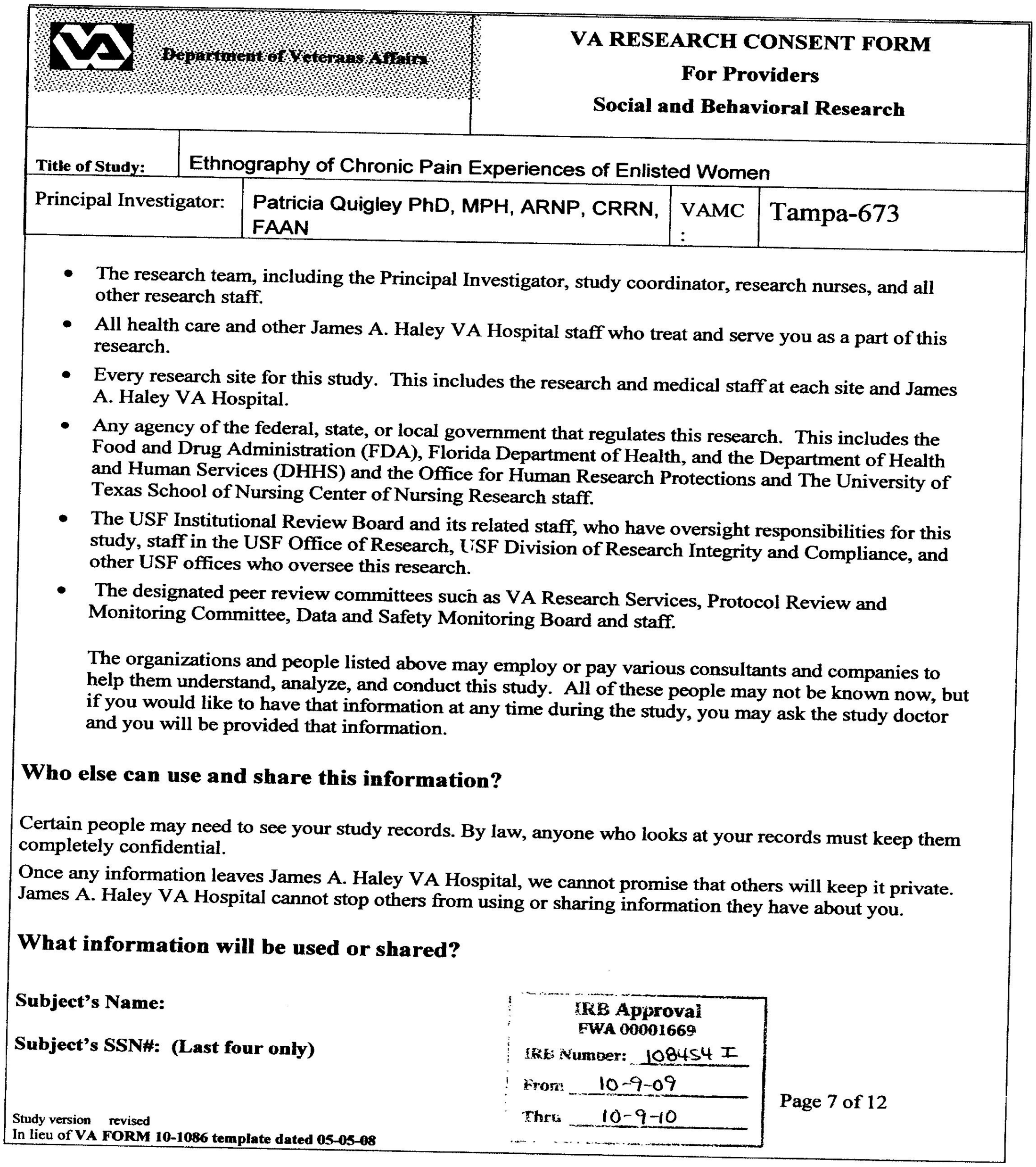

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- The research team, including the Principal Investigator, study coordinator, research nurses, and all other research staff.
- All health care and other James A. Haley VA Hospital staff who treat and serve you as a part of this research.
- Every research site for this study. This includes the research and medical staff at each site and James A. Haley VA Hospital.
- Any agency of the federal, state, or local government that regulates this research. This includes the Food and Drug Administration (FDA), Florida Department of Health, and the Department of Health and Human Services (DHHS) and the Office for Human Research Protections and The University of Texas School of Nursing Center of Nursing Research staff.
- The USF Institutional Review Board and its related staff, who have oversight responsibilities for this study, staff in the USF Office of Research, USF Division of Research Integrity and Compliance, and other USF offices who oversee this research.
- The designated peer review committees such as VA Research Services, Protocol Review and Monitoring Committee, Data and Safety Monitoring Board and staff.

The organizations and people listed above may employ or pay various consultants and companies to help them understand, analyze, and conduct this study. All of these people may not be known now, but if you would like to have that information at any time during the study, you may ask the study doctor and you will be provided that information.

Who else can use and share this information?

Certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential.

Once any information leaves James A. Haley VA Hospital, we cannot promise that others will keep it private. James A. Haley VA Hospital cannot stop others from using or sharing information they have about you.

What information will be used or shared?

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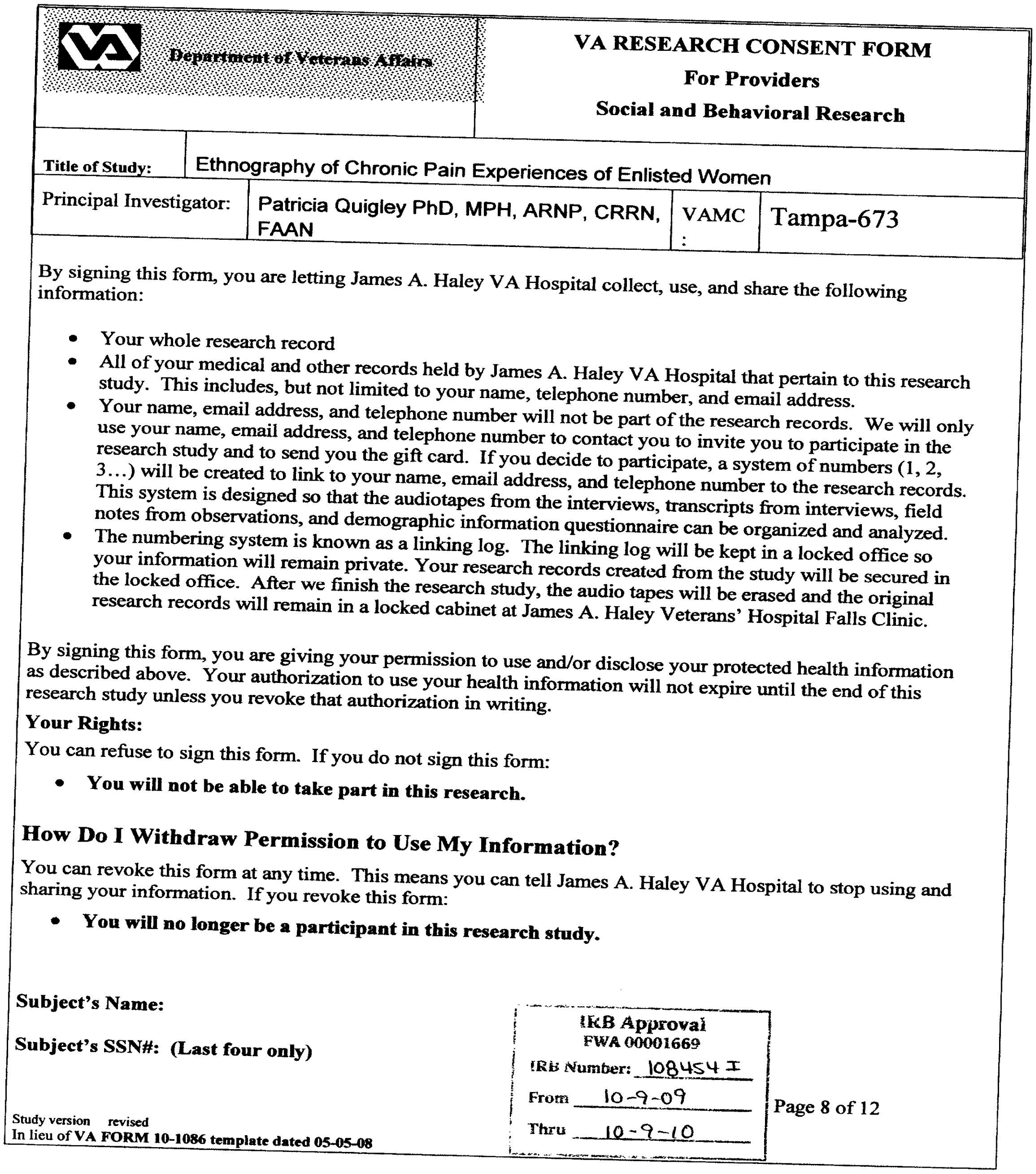

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By signing this form, you are letting James A. Haley VA Hospital collect, use, and share the following information:

- Your whole research record
- All of your medical and other records held by James A. Haley VA Hospital that pertain to this research study. This includes, but not limited to your name, telephone number, and email address.
- Your name, email address, and telephone number will not be part of the research records. We will only use your name, email address, and telephone number to contact you to invite you to participate in the research study and to send you the gift card. If you decide to participate, a system of numbers (1, 2, 3...) will be created to link to your name, email address, and telephone number to the research records. This system is designed so that the audiotapes from the interviews, transcripts from interviews, field notes from observations, and demographic information questionnaire can be organized and analyzed.
- The numbering system is known as a linking log. The linking log will be kept in a locked office so your information will remain private. Your research records created from the study will be secured in the locked office. After we finish the research study, the audio tapes will be erased and the original research records will remain in a locked cabinet at James A. Haley Veterans' Hospital Falls Clinic.

By signing this form, you are giving your permission to use and/or disclose your protected health information as described above. Your authorization to use your health information will not expire until the end of this research study unless you revoke that authorization in writing.

Your Rights:

You can refuse to sign this form. If you do not sign this form:

- **You will not be able to take part in this research.**

How Do I Withdraw Permission to Use My Information?

You can revoke this form at any time. This means you can tell James A. Haley VA Hospital to stop using and sharing your information. If you revoke this form:

- **You will no longer be a participant in this research study.**

Subject's Name:

Subject's SSN#: (Last four only)

IRB Approval
FWA 00001669
IRB Number: 108454 I
From 10-9-09
Thru 10-9-10

Study version revised
In lieu of VA FORM 10-1086 template dated 05-05-08

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Department of Veterans Affairs	**VA RESEARCH CONSENT FORM** **For Providers** **Social and Behavioral Research**

Title of Study:	Ethnography of Chronic Pain Experiences of Enlisted Women		
Principal Investigator:	Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN	VAMC:	Tampa-673

- **The information that we have collected before you tell us to stop may already have been used or shared, or we may need it to complete the research so you cannot withdraw that information.**
- **Staff may follow-up with you if there is a medical reason to do so.**

To revoke this form, you must tell us in writing. To revoke your authorization, you must write to the Release of Information Office at this facility or you can ask a member of the research team to give you a form to revoke the authorization. Your request will be valid when the Release of Information Office receives it. If you revoke this authorization, you will not be able to continue to participate in the study.

If you revoke this authorization, your research doctor or staff can continue to use information about you that was collected before receipt of the revocation. The research team will not collect information about you after you revoke the authorization.

While we are doing this research, we cannot let you see or copy the research information we have about you. After the research is done, you have a right to see and copy the information about you, as allowed by James A. Haley VA Hospital policies.

The VHA complies with the requirements of the Health Insurance Portability and Accountability Act of 1996 and its privacy regulations and all other applicable laws that protect your privacy. We will protect your information according to these laws. Despite these protections, there is a possibility that your information could be used or disclosed in a way that it will no longer be protected. Our Notice of Privacy Practices (a separate document) provides more information on how we protect your information. If you do not have a copy or would like a copy of the Notice, the research team will provide one to you.

What will we do to keep your study records private and confidential?

There are federal laws that say we must keep your study records private. We will keep the records of this study private and confidential by securing all data collected and created from this research in a locked office, Veterans' Information Security Officer approved secured computer system, password protection, firewall, encryption used for electronic transfer, restricted access, and data will be stored in a password protected personal computer. Audiotapes will be sent to The University of Texas School of Nursing Center for Nursing Scholarship and Technology via tracked mail for analysis and returned to James A. Haley Veterans' Hospital via the same method once the data analysis is complete. The University of Texas School of Nursing Center for Nursing Scholarship and Technology has secure file cabinets for individual researchers and password protected

Subject's Name:

Subject's SSN#: (Last four only)

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FWA 00001669
IRB Number: 108454 I
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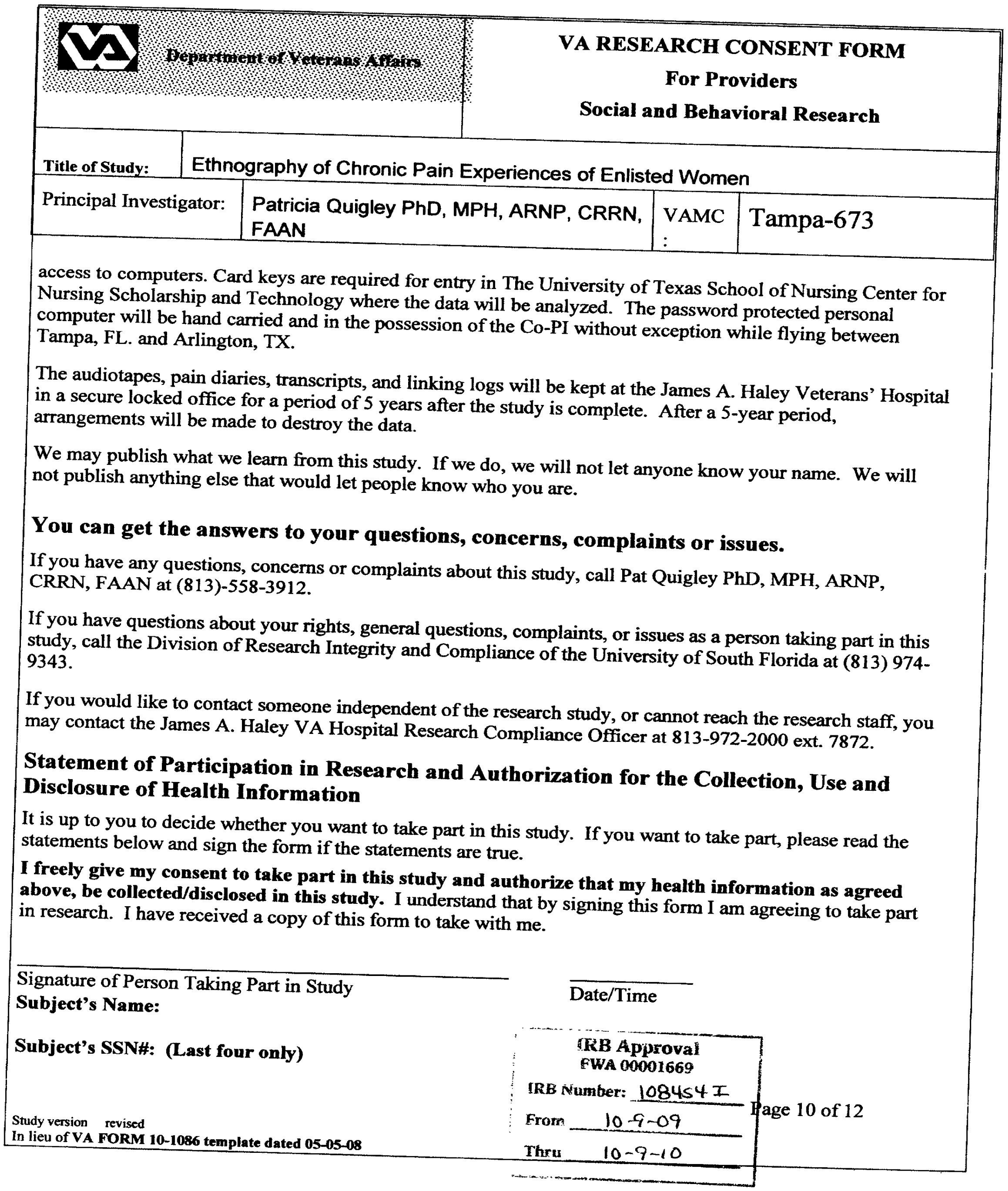

Department of Veterans Affairs

VA RESEARCH CONSENT FORM
For Providers
Social and Behavioral Research

Title of Study:	Ethnography of Chronic Pain Experiences of Enlisted Women		
Principal Investigator:	Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN	VAMC:	Tampa-673

access to computers. Card keys are required for entry in The University of Texas School of Nursing Center for Nursing Scholarship and Technology where the data will be analyzed. The password protected personal computer will be hand carried and in the possession of the Co-PI without exception while flying between Tampa, FL. and Arlington, TX.

The audiotapes, pain diaries, transcripts, and linking logs will be kept at the James A. Haley Veterans' Hospital in a secure locked office for a period of 5 years after the study is complete. After a 5-year period, arrangements will be made to destroy the data.

We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are.

You can get the answers to your questions, concerns, complaints or issues.

If you have any questions, concerns or complaints about this study, call Pat Quigley PhD, MPH, ARNP, CRRN, FAAN at (813)-558-3912.

If you have questions about your rights, general questions, complaints, or issues as a person taking part in this study, call the Division of Research Integrity and Compliance of the University of South Florida at (813) 974-9343.

If you would like to contact someone independent of the research study, or cannot reach the research staff, you may contact the James A. Haley VA Hospital Research Compliance Officer at 813-972-2000 ext. 7872.

Statement of Participation in Research and Authorization for the Collection, Use and Disclosure of Health Information

It is up to you to decide whether you want to take part in this study. If you want to take part, please read the statements below and sign the form if the statements are true.

I freely give my consent to take part in this study and authorize that my health information as agreed above, be collected/disclosed in this study. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

Signature of Person Taking Part in Study ____________________ Date/Time ____________

Subject's Name:

Subject's SSN#: (Last four only)

IRB Approval
FWA 00001669
IRB Number: 108454 I
From 10-9-09
Thru 10-9-10

Page 10 of 12

Study version revised
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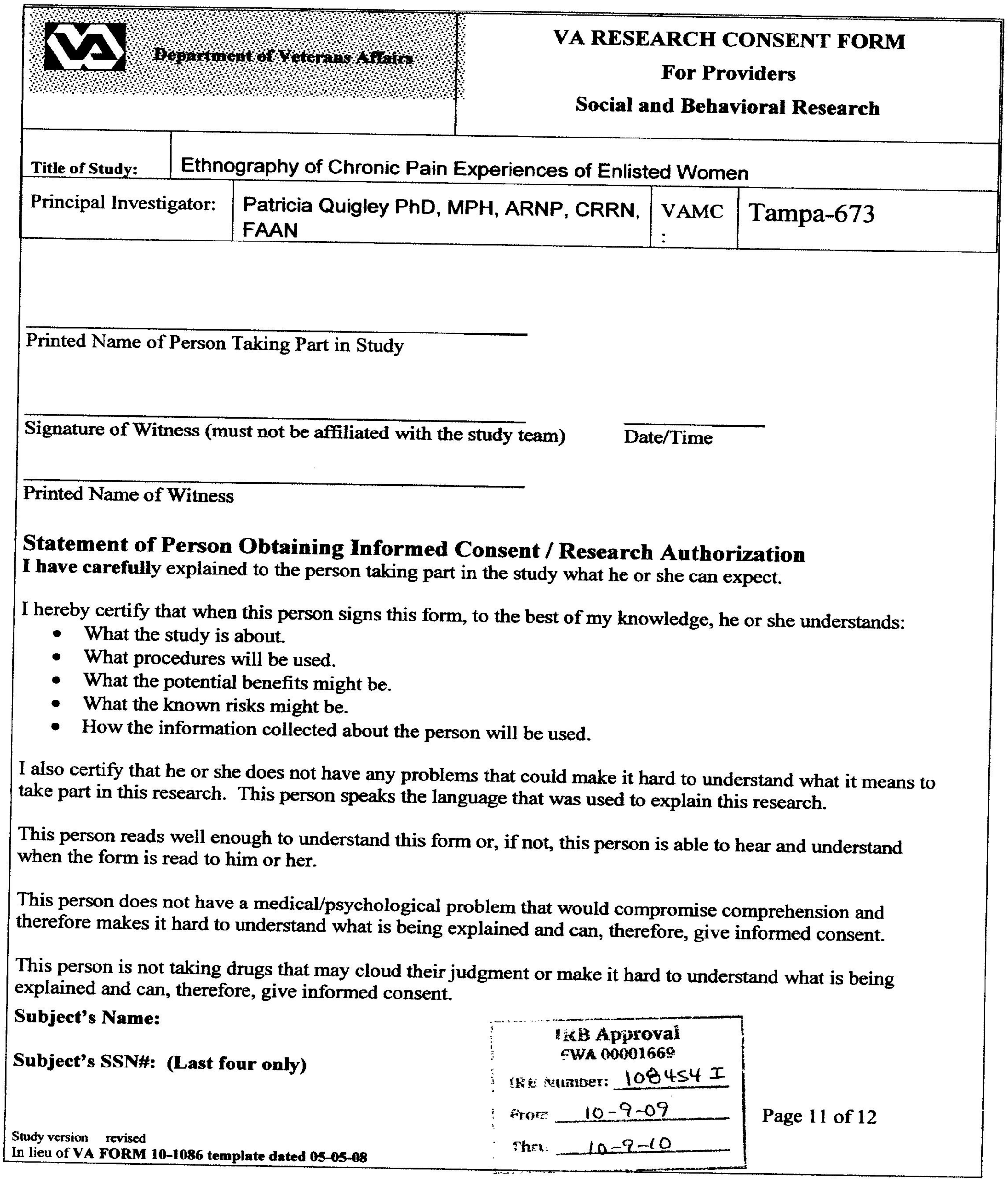

Department of Veterans Affairs

VA RESEARCH CONSENT FORM
For Providers
Social and Behavioral Research

Title of Study:	Ethnography of Chronic Pain Experiences of Enlisted Women		
Principal Investigator:	Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN	VAMC:	Tampa-673

Printed Name of Person Taking Part in Study

Signature of Witness (must not be affiliated with the study team) Date/Time

Printed Name of Witness

Statement of Person Obtaining Informed Consent / Research Authorization
I have carefully explained to the person taking part in the study what he or she can expect.

I hereby certify that when this person signs this form, to the best of my knowledge, he or she understands:

- What the study is about.
- What procedures will be used.
- What the potential benefits might be.
- What the known risks might be.
- How the information collected about the person will be used.

I also certify that he or she does not have any problems that could make it hard to understand what it means to take part in this research. This person speaks the language that was used to explain this research.

This person reads well enough to understand this form or, if not, this person is able to hear and understand when the form is read to him or her.

This person does not have a medical/psychological problem that would compromise comprehension and therefore makes it hard to understand what is being explained and can, therefore, give informed consent.

This person is not taking drugs that may cloud their judgment or make it hard to understand what is being explained and can, therefore, give informed consent.

Subject's Name:

Subject's SSN#: (Last four only)

IRB Approval
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IRB Number: 108454 I
From 10-9-09
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Study version revised
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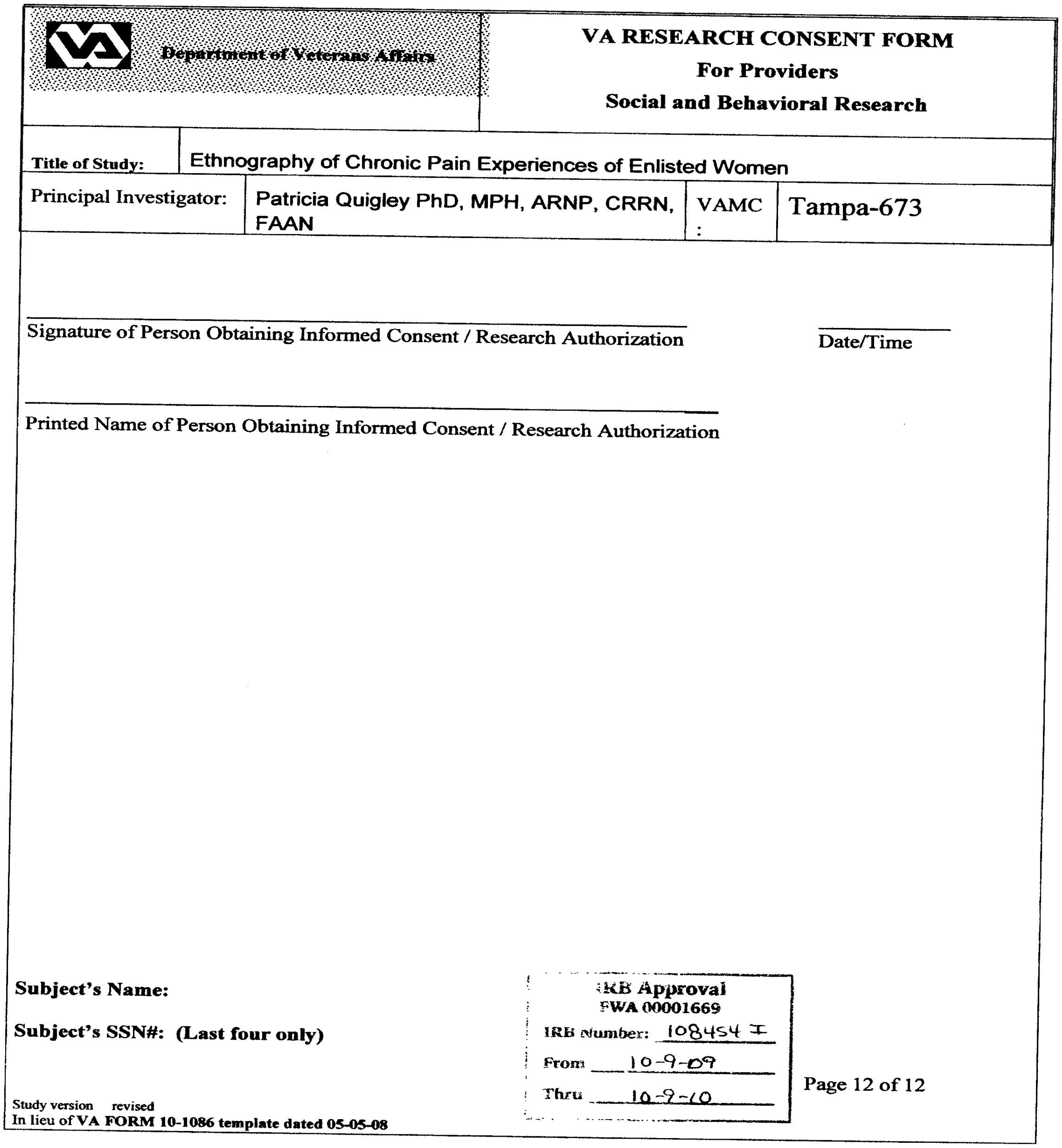

Department of Veterans Affairs

VA RESEARCH CONSENT FORM
For Providers
Social and Behavioral Research

Title of Study:	Ethnography of Chronic Pain Experiences of Enlisted Women		
Principal Investigator:	Patricia Quigley PhD, MPH, ARNP, CRRN, FAAN	VAMC:	Tampa-673

Signature of Person Obtaining Informed Consent / Research Authorization

Date/Time

Printed Name of Person Obtaining Informed Consent / Research Authorization

Subject's Name:

Subject's SSN#: (Last four only)

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IRB Number: 108454 I
From 10-9-09
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Study version revised
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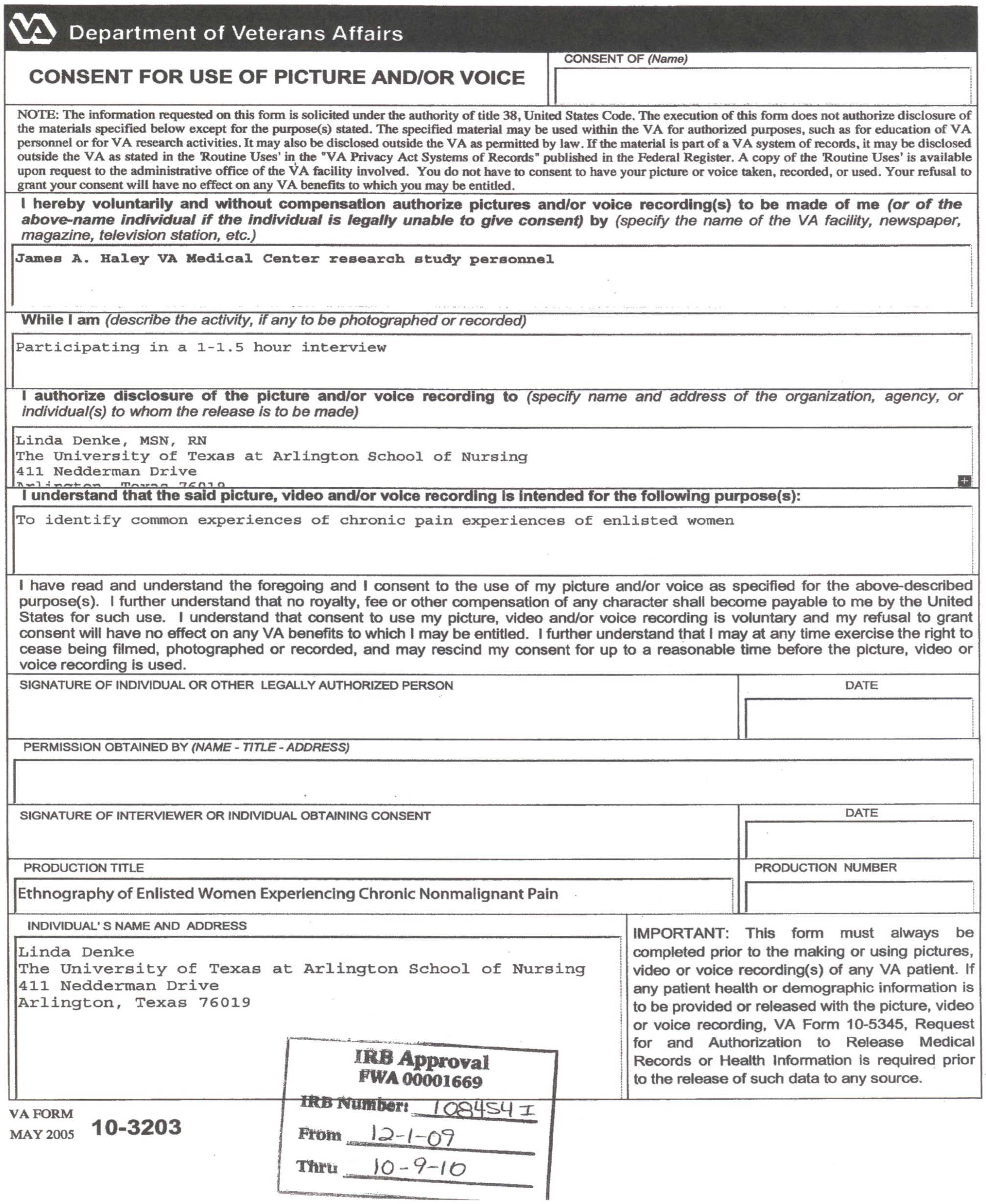


Department of Veterans Affairs

CONSENT FOR USE OF PICTURE AND/OR VOICE

CONSENT OF *(Name)*

NOTE: The information requested on this form is solicited under the authority of title 38, United States Code. The execution of this form does not authorize disclosure of the materials specified below except for the purpose(s) stated. The specified material may be used within the VA for authorized purposes, such as for education of VA personnel or for VA research activities. It may also be disclosed outside the VA as permitted by law. If the material is part of a VA system of records, it may be disclosed outside the VA as stated in the 'Routine Uses' in the "VA Privacy Act Systems of Records" published in the Federal Register. A copy of the 'Routine Uses' is available upon request to the administrative office of the VA facility involved. You do not have to consent to have your picture or voice taken, recorded, or used. Your refusal to grant your consent will have no effect on any VA benefits to which you may be entitled.

I hereby voluntarily and without compensation authorize pictures and/or voice recording(s) to be made of me *(or of the above-name individual if the individual is legally unable to give consent)* by *(specify the name of the VA facility, newspaper, magazine, television station, etc.)*

James A. Haley VA Medical Center research study personnel

While I am *(describe the activity, if any to be photographed or recorded)*

Participating in a 1-1.5 hour interview

I authorize disclosure of the picture and/or voice recording to *(specify name and address of the organization, agency, or individual(s) to whom the release is to be made)*

Linda Denke, MSN, RN
The University of Texas at Arlington School of Nursing
411 Nedderman Drive
Arlington, Texas 76019

I understand that the said picture, video and/or voice recording is intended for the following purpose(s):

To identify common experiences of chronic pain experiences of enlisted women

I have read and understand the foregoing and I consent to the use of my picture and/or voice as specified for the above-described purpose(s). I further understand that no royalty, fee or other compensation of any character shall become payable to me by the United States for such use. I understand that consent to use my picture, video and/or voice recording is voluntary and my refusal to grant consent will have no effect on any VA benefits to which I may be entitled. I further understand that I may at any time exercise the right to cease being filmed, photographed or recorded, and may rescind my consent for up to a reasonable time before the picture, video or voice recording is used.

SIGNATURE OF INDIVIDUAL OR OTHER LEGALLY AUTHORIZED PERSON	DATE
PERMISSION OBTAINED BY *(NAME - TITLE - ADDRESS)*	
SIGNATURE OF INTERVIEWER OR INDIVIDUAL OBTAINING CONSENT	DATE
PRODUCTION TITLE Ethnography of Enlisted Women Experiencing Chronic Nonmalignant Pain	PRODUCTION NUMBER

INDIVIDUAL'S NAME AND ADDRESS

Linda Denke
The University of Texas at Arlington School of Nursing
411 Nedderman Drive
Arlington, Texas 76019

IMPORTANT: This form must always be completed prior to the making or using pictures, video or voice recording(s) of any VA patient. If any patient health or demographic information is to be provided or released with the picture, video or voice recording, VA Form 10-5345, Request for and Authorization to Release Medical Records or Health Information is required prior to the release of such data to any source.

IRB Approval
FWA 00001669
IRB Number: 108454 I
From 12-1-09
Thru 10-9-10

VA FORM
MAY 2005 **10-3203**

APPENDIX D

DEMOGRAPHIC INFORMATION SHEET

1. Age______
2. Ethnic origin

   Caucasian___

   Black___

   Hispanic___

   Asian____

   Native American____

   Other_____

   Era of Military Service

   WWII___

   Korea___

   Vietnam___

   Post Viet Nam____

   Desert Storm____

   OIF____

   OEF___
3. Branch of military service___________ Rank__________
4. History of sexual abuse yes_______ no________
5. Mental illness yes____no____If yes, which one(s)

   Posttraumatic stress disorder____

   depression____

bipolar____

schizophrenia_____

obsessive compulsive disorder_____

6. Do you abuse alcohol (Now or in the past) Yes___No___

   Once a week____

   Two-three times a week____

   Four or more times a week____

7. Illegal drugs: (Now or in the past) Yes___ No___

8. Disability status _____________

9. Service related injury Yes____No____

10. Marital status:

    Single____Married_____ Widowed_____Divorced____Living with partner_____

11. With whom do you live______________Number of children__________

12. Employment status_________________

13. Gross salary per yearly_____

14. Current Medications________________

15. Number of health visits of any kind in the past two years____________________

16. Pain sites: number___ and location__________________

APPENDIX E

PARTICIPANT INTERVIEW QUESTIONS

Introduction

As military women, your beliefs and attitudes about your chronic pain are important to us. We would like to explore how your military training and culture influences your chronic pain experience.

Concept	Grand Tour Questions
Pain beliefs and attitudes	How does your chronic pain affect your daily life?
	How did you know to seek out pain treatment?
	What do you believe about your chronic pain?
Culture	How has being in the military affecting your chronic pain?
Pain control	Tell me how you control your pain?
	How much can you control the pain?
Factors that affect pain control	What affects your ability to manage your chronic pain
	How does being a woman affect your ability to manage your chronic pain?
Probes	What do you do to manage your pain?
	What prevents you from managing your pain?
	How helpful is the women clinic and staff in helping you manage your pain?

APPENDIX F

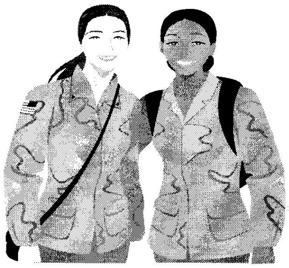
PROVIDER INTERVIEW QUESTIONS

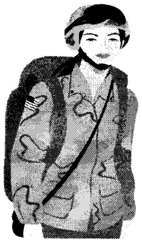
Concept	Grand tour questions
Pain beliefs and attitudes	How does chronic pain affect the daily life of military women?
	What do you believe about chronic pain and its treatment?
	When do they know to seek out pain treatment?
	What do they do and say to you to indicate they are in pain?
	Why do you think this is so?
Culture	How has being in the military affect military women's' chronic pain?
	How does working in the military affect your pain care?
Pain control	What is the common pain treatment used for women?
	Does the treatment work?
	If not, what is the next step in pain care?
	How much control do you believe women have over their pain?
	Why?
Factors that affect pain control	What affects your ability to manage chronic pain women pain patients?
	How does being a woman affect pain management at the clinic?
	How do military women cope with pain?

APPENDIX G

VA FLYER

A Study on Chronic Pain in Women





Who: Enlisted women ages 18-59

What: A visit at a location of your choice nearby to do a face to-face or telephone interview & fill out a pain diary for 1 week. For your time and effort you will receive $10 gift card.

When: Recruiting November 2009 through December 2010

Contact: Linda Denke, MSN, RN
@ ldenke@ccccd.edu
Or
Pat Quigley, PhD, MPH, ARNP, CRRN, FAAN
VISN 8 Falls Clinic, James A. Haley VAMC (118M)
Tampa, FL
Phone:(813) 558-3912
Email Patricia.Quigley@va.gov
to schedule an appointment

IRB Approval # __________

Approved by the Research and Development Committee on 11/6/09.

APPENDIX H

PRINTED PAIN MATERIALS REVIEWED

Department of Veterans Affairs Veterans Health Administration (VHA) Pain Management Quick links (2009). C*linical practice guidelines: Management of opioid therapy for chronic pain.* Retrieved December 16, 2009 from http://vaww1.va.gov/pain_management/docs/ChronicpainguidelinesVA2003.pdf

Department of Veterans Affairs Veterans Health Administration (VHA) Pain Management Quick links (2009*). VA fentanyl patches transdermal patch dosing and safety information paper* Retrieved December 15, 2009 from http://vaww1.va.gov/pain_management/docs/FentanylTDS-IP.doc

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Interdisciplinary Pain Team Training Program Announcement (2009). James A. Haley VA Hospital, Tampa, Florida. Retrieved December 15, 2009 from (VHA) Hospital Training Programs @ http://vaww1.va.gov/Pain_Management/page.cfm?pg=64

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BIOGRAPHICAL INFORMATION

Linda Denke is a Professor of Nursing who is currently working at Collin College in the Associate Degree Nursing Program in McKinney, Texas. She has spent her lifetime developing health care programs that target chronic conditions including diabetes and chronic pain in vulnerable populations. Her seminal research was among the newly diagnosed Navajo diabetic patients who resulted in a research study that described the outcomes of a low cost educational curriculum using nutrition and exercise on reducing blood sugars and long-term diabetes complications among Native populations.

She has worked among the uninsured in Louisiana and expanded a cancer screening programs from serving about 4000 uninsured minority women to over 10,000 women. The first digital mammography was purchased for the region because of the outcomes of cancer screening and breast cancer incidence and is currently in use for both the public and private sector populations. Her professional goal is to become a nurse researcher focusing on veteran's health care concerns. She serves on Board of Directors in Collin County, Texas, energetically educating families, law enforcement servants, and politicians about the necessary mental health care to those in need. Her lifelong goal is to develop policy at the National Institutes of Health to include her passion, nursing research.