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The demographic and clinical characteristics of female veterans who engage in complementary and alternative medicine

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Abstract

Prior research has demonstrated that specific types of complementary and alternative medicine (CAM) are beneficial in decreasing mental health symptoms. Despite this, rates of CAM use are relatively low among veterans, and data about CAM use among female veterans is non-existent. Thus, the purpose of this study is to examine the demographic and clinical characteristics of female veterans that engage in CAM. Female Operation Enduring Freedom and Operation Iraqi Freedom Veterans (n=365) in Veterans Affairs (VA) care participated in a web-based survey that was one component of a larger VA study. Results indicated that slightly more than one third of female veterans engaged in CAM within the twelve months prior to participating in the study, and that exercise and movement therapy was the most commonly used CAM. Findings also revealed a variety of specific demographic and clinical characteristics of female veterans that engaged in CAM (i.e. identifying as Latino/Hispanic, having a service-connected disability rating, having private health insurance, needing mental health care in the past 6 months and being unable to get it, having experienced military sexual trauma, not receiving treatment since returning from deployment for drug and/or alcohol abuse, and not having been physically harmed by a stranger). These findings suggest that low rates of CAM use by female veterans may be due in part to cultural factors, cost, stigma, fear of "risk-taking," and lack of health consciousness.

THE DEMOGRAPHIC AND CLINICAL CHARACTERISTICS OF FEMALE VETERANS WHO ENGAGE IN COMPLEMENTARY AND ALTERNATIVE MEDICINE

A project based upon an independent investigation, submitted in partial fulfillment of the requirements for the degree of Master of Social Work

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Introduction

This study will examine the demographic and clinical characteristics of female veterans that engage in CAM. CAM refers to healing techniques that are not traditionally practiced by Western-trained physicians, but are traditionally used in medical systems in non-Western parts of the world. For this study, CAM will include acupuncture, biofeedback, chiropractic, energy healing, exercise or movement therapy, herbal therapy, high dose/mega-vitamins, homeopathy, hypnosis, imagery techniques, massage therapy, prayer or other spiritual practice, relaxation or meditation techniques, yoga, special diets, and spiritual healing by others.

There is an important need for such a study. Prior research has demonstrated that returning veterans have high rates of anxiety, depression, PTSD, substance abuse, and alcohol abuse. Hunt and Rosenheck (2011) used the VA workload databases for fiscal year 2006 to determine mental health diagnoses among veterans. They found that of all veterans receiving mental health services, 20% have symptoms of major depression, 39% have symptoms of "minor" depression, 32% have symptoms of PTSD, 14% have symptoms of a drug-related disorder, and 17% have symptoms of an alcohol disorder. Considering the need for mental health treatment among veterans, this study will provide valuable information about the benefits of CAM for veterans with mental health problems.

In addition, this study will provide specific information about the benefit of CAM for *female* veterans with mental health problems. This is important, since, according to Owens, Herrera, and Whitesell (2009), "Female military personnel continue to grow in numbers in the armed services and may have a unique experience of the stresses associated with war and military service" (31). In 2006, Murdoch et al. estimated that around 10% of military personnel deployed to Iraq and Afghanistan was female, and the number has almost certainly risen since then. This suggests that it has become important to determine the most effective ways to treat female veterans and their potentially unique experiences of war and military service stresses.

Although female veterans are still not permitted to serve in direct combat positions, the current operating environment does not have traditional front lines, and it therefore requires that all military personnel be prepared to engage in combat. In addition, research has shown that many women experience psychological distress not only due to combat, but also due to other traumatic events that occur during military service (including sexual assault and harassment). Skinner et al. (2000) found that more than half of female veterans had experienced sexual harassment during their military service, and that almost one quarter of female veterans had experienced sexual assault during their military service. Similarly, Katz, Bloor, Cojucar, and Draper (2007) found that within a treatment-seeking sample of female veterans from Operation Iraqi Freedom and Operation Enduring Freedom, more than half reported encountering military sexual trauma during their military service,

If it is concluded that certain CAM are beneficial in alleviating mental health problems for females, but that female veterans are not using these therapies, VAs should begin to encourage and/or offer the use of these therapies. Even if it is determined that female veterans

are already using specific CAM to alleviate mental health problems, the VA should potentially offer, and encourage, more CAM use as a part of their services.

According to Hoge et al. (2004), around 17% of veterans returning from service in Iraq, and 11% of veterans returning from service in Afghanistan, screen positive for depression, PTSD, and generalized anxiety. However, only 23% to 40% of these same individuals actually seek treatment (Hoge et al., 2004). Perhaps if there were types of treatment that were less associated with mental illness (and therefore had less of a stigma attached), veterans would be more willing to try them. Therefore, the VA could potentially greatly alleviate mental health problems among veterans if it begins to offer particularly beneficial types of CAM as part of its services.

While it is known that mental health diagnoses are high among veterans when compared to the general U.S. population, studies have also reported that veterans are at an elevated risk for suicide (i.e. Kaplan et al., 2007). Mc.Carthy et al. (2009) found that female veterans, in particular, had a high rate of suicide compared to the general population (the crude suicide rate was 10.41/100,000 person-years for female veterans, compared with 5.22/100,000 person-years in the general population). Also, the presence of a psychiatric disorder is a consistent risk factor for suicide (Bertolote, Fleischmann, De Leo, and Wasserman, 2004), and Ilgen et al. (2010) estimate that between 90% - 98% of all individuals who commit suicide meet criteria for at least one psychiatric disorder. Since the VA is the largest single health care provider in the United States, it should offer any alternative therapies that may alleviate mental health problems, which should in turn help to reduce the risk of suicide among veterans.

This study is relevant to social work practice in several ways. First, it will examine the rate of CAM use among female veterans, and these findings will suggest whether or not there are

high rates of female veterans that are already engaging in CAM. If there are not, the VA might like to offer more of these services (especially the types of CAM that have proven to be effective in decreasing mental health symptoms), since this will in turn potentially increase female veteran's well being and decrease their risk of suicide. Second, this study promotes social workers' ethical responsibilities to the larger society. According to the National Association of Social Workers (NASW, 2011), "Social workers should promote the general welfare of society, from local to global levels, and the development of people, their communities, and their environments." By examining the demographic and clinical characteristics of female veterans that are engaging in CAM, this study will suggest factors that are hindering other female veterans from engaging in it. This may have ramifications for VA counseling, health insurance, and overall VA policy that will in turn benefit female veterans (and potentially male veterans as well).

Literature Review

The Veteran Population and Mental Health Problems

According to Herman (1997), "People who have endured horrible events suffer predictable psychological harm" (3). It is widely known that many veterans have indeed experienced "horrible events," and thus, it is not surprising that many of them suffer from mental health problems. In the DSM-IV, trauma is defined as when an individual "experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others (427)." Although this definition of trauma fails to note that what may be traumatic for one person may not be for another, it is much improved over the definition provided by the DSM-III. The DSM-IV, unlike the DSM-III, includes military trauma in its definition, which has become an extremely large problem in our society. In fact, according to Michols (2009), about 40% of Iraq and Afghanistan veterans have been diagnosed with one or more mental disorders (22% with at least PTSD). In addition, a fairly recent study looking simply at PTSD is projecting the rate to actually be as high as 35% (Science Daily, 2009).

As stated, prior research has demonstrated that there are high rates of mental health problems among veterans. To further explore this, Maguen et al. (2010) used the VA Operation Enduring Freedom and Operation Iraqi Freedom Rosters from 2002 through 2008 to examine gender differences in mental illness in the veteran population. The study found that 23% of women and 17% of men have diagnoses of depression, 17% of women and 22% of men have symptoms of PTSD, 12% of women and 10% of men have symptoms of anxiety, 2% of women and 3% of men have symptoms of a substance use disorder, and 3% of women and 8% of men have symptoms of an alcohol-use disorder.

Vogt et al. (2011) also examined gender differences in combat-related stressors and looked at their relationship with post-deployment mental health in a sample of U.S. veterans. Vogt and colleagues found that men reported more objective exposure (exposure to combat, aftermath of battle, and difficult living and working environment) to combat-related stressors than women. However, women reported similar levels of subjective exposure (perceived threat) to combat-related stressors as men. The study also found that men were more likely than women to abuse substances, that women were more likely than men to have had exposure to highly stressful or traumatic events before deployment, and that women were more likely than men to have been sexually harassed or assaulted during deployment.

Chatterjee et al. (2009) also found a variety of gender differences in terms of mental health problems among the veteran population. Although the percentage of veterans diagnosed with post-traumatic stress disorder (PTSD) was not significantly different between men and women, men were significantly more likely than woman to have a diagnosis of substance abuse, and women were more likely than men to have a diagnosis of bipolar/psychotic disorders or mood/anxiety disorders. However, among veterans diagnosed with PTSD, more men than women were also diagnosed with substance abuse, and more women than men were also diagnosed with bipolar/psychotic or mood/anxiety disorder. Similarly, although substance abuse was high among men, a greater percentage of women with a substance abuse diagnosis had additional comorbidities (such as bipolar/psychotic, post traumatic stress, or mood/anxiety disorders).

Veterans and CAM

Out of 125 VA facilities that responded to a survey on CAM by VA's Health Care Analysis and Information Group (VA Research Currents, 2011), 101 provided meditation, 93

provided stress management/relaxation therapy, 82 provided guided imagery, 75 provided progressive muscle relaxation, 70 provided biofeedback, 58 provided acupuncture, 44 provided yoga, and 41 provided hypnosis/hypnotherapy. It should be noted that chiropractic, as of 2004, is considered part of standard care in the VA and not CAM, and that the VA is prohibited from offering herbal or nutritional supplements that are not approved as treatments by the Food and Drug Administration. Only 12 percent of the 125 VAs had an integrative medicine clinic that provided CAM. According to the survey, CAM is used most often by the VA to help veterans manage stress, promote wellness, and decrease symptoms of anxiety, PTSD, depression, and substance abuse. It is also used to alleviate back pain, headaches, arthritis, and fibromyalgia.

There is a variety of literature that has been published thus far on veterans and CAM. Tan, Dao, Smith, Robinson, and Jensen (2010) found that veterans were accepting of CAM (pulsed electromagnetic fields, therapeutic touch, reiki, qigong, cranial electrotherapy stimulation, meditation, hypnosis, yoga, and biofeedback) in a pain management program and that it was feasible to implement these therapies in such a program. The study also found that adding CAM to the program improved attendance, and that the CAM significantly reduced pain intensity ratings and improved quality of life among participants

Another study, done by Kroesen, Baldwin, Brooks, and Bell (2002) found that participants were generally satisfied with their conventional care. However, the participants that were not satisfied often disliked the traditional reliance on prescription medications, as well as the medical system's lack of holism (lack of information regarding diet, nutrition and exercise, and lack of knowledge of social and spiritual dimensions). The individuals that expressed such dissatisfaction were more likely than those that did not to use CAM.

Micek et al. (2006) discovered that approximately a quarter of VA outpatients had used CAM therapy within the past year. The most common types of CAM used were herbs (12.5%), chiropractic (6.8%), spiritual healing (6.3%), and massage (5.8%). The researchers suggest that VA CAM users are drawn to alternative therapies since they are perceived as "natural" and congruent with their lifestyles, or because they have a stronger sense of personal responsibility for health care. In addition, lower overall satisfaction with VA primary care was associated with more CAM use.

Strauss, Coeytaux, McDuffie, Nagi, and Williams (2011) conducted a literature review that examined the efficacy of CAM for PTSD. They found that meditation was statistically non-significant in improving PTSD severity compared to usual care and psychotherapy, and that relaxation was not associated with significant clinical improvement. In terms of acupuncture, PTSD symptoms decreased more for those that received acupuncture than it did for those that were on a waiting list to receive it, and a similar amount to those doing cognitive behavioral therapy. They also found that there was insufficient evidence as to whether "manipulative and body-based" types of CAM were more effective than control therapies for PTSD symptoms, and they stated that they were unable to find any "published, ongoing, or unpublished/completed RCTs of movement-based or energy therapies for PTSD" (3).

CAM Beyond the Veteran Population

Studies done on CAM use within the United States' population have a variety of notable results. Ni et al. (2002) found that the three most commonly used types of CAM within the U.S. were spiritual healing and prayer, herbal medicine, and chiropractic therapies. In addition, individuals living in the Midwest and West were more likely to utilize CAM than individuals that lived in the Northeast or South. Finally, CAM use was highest for females, for middle-aged

individuals, for individuals with higher education, and for individuals with health insurance. Within males (but not females), CAM use was higher for those that rated their health status as poor or fair.

Kronenberg et al. (2006) conducted a study to examine the use of CAM among female non-Hispanic Whites, African Americans, Mexican Americans, and Chinese Americans in the United States ($n = 3068$). They found that over one third, but less than half, of individuals belonging to each racial/ethnic group reported using at least one type of CAM in the past year. Their results also showed that White individuals had higher CAM usage than other groups, but that when CAM usage was adjusted for socioeconomic factors, use by White individuals and Mexican American individuals became equal.

A study conducted by Upchurch et al. (2007) reported that about 40% of women reported any recent CAM use in 2002 ($n = 17,295$ women). They also found that biologically based therapies were the most frequently reported type of CAM used (23.8%), while mind-body therapies were second (20.9%). Barnes et al. (2004) also used data that had been collected in 2002, and they determined that 62% of adults used some form of CAM during the past 12 months if prayer for health reasons was included, but that the number that had used it dropped to 36% if it was not.

In terms of CAM and its specific relation to mental illness within the U.S., Jarman, Perron, Kilbourne, and Farmer (2010) examined CAM use for U.S. citizens with bipolar disorder. It was found that medication compliance was not significantly associated with use of CAM, and the results of the study did not indicate that CAM use was associated with perceived effectiveness of treatments for mental health problems among patients with bipolar disorder.

Unutzer et al. (2000) looked more broadly at mental illness and CAM in the U.S. population, and found that of all respondents that used CAM, 21.3% met diagnostic criteria for one or more mental disorders, compared to 12.8 % of respondents who did not report use of CAM therapy. Of those with a mental disorder that were using CAM, 22.4% had major depression, 16.4% had dysthymia, 32.0% had panic disorder, 20.5% had generalized anxiety disorder, and 22.3% had mania or psychosis. They stated that this implies that practitioners of alternative medicine should look for mental disorders in their patients, and that conventional medical providers should ask their patients with mental disorders whether they are using any type of CAM.

Although CAM is being used both by United States veterans and within the United States population, it is unclear how effective the various types of CAM are and what types of mental health problems they are being used to alleviate. Therefore, individual types of CAM will now be addressed, so as to examine the types of mental health problems that each may be used to treat, and to look at the efficacy of each form of CAM on various mental health problems.

Acupuncture and Mental Health

Although acupuncture is not commonly used to treat mental health problems in the United States, there have been a variety of studies done on its ability to decrease mental health symptoms. Wang et al. (2008) conducted a meta-analysis using eight randomized controlled trials in China. Although the study was small (it included 477 subjects overall), the results suggested that acupuncture does significantly reduce the severity of depression, and that therefore, acupuncture is an effective treatment that has the ability to reduce the severity of depression in the general population.

Another study was done on depression and the efficacy of acupuncture. It was conducted by Williams and Graham (2006) in the U.K., and it had a sample size of 13 subjects. The researchers found that "patients… found therapy relaxing and also felt it helped improve their mood" (600). Röschke et al. (2000) conducted a similar, which included 70 inpatients that were having a major depressive episode. Some of them were given verum acupuncture, some of them placebo acupuncture, and others were placed in a control group. The researchers found that patients who experienced acupuncture were slightly more improved than patients that were in the placebo group. However, there were no differences found for patients that received the placebo versus those that received the actual acupuncture.

Allen, Schnyer, and Hitt (1998) also conducted a study on depression and efficacy of acupuncture, but focused only on women. Thirty-eight women were assigned to one of three treatment groups: acupuncture treatment for symptoms of depression, nonspecific treatment involving acupuncture for symptoms that were not necessarily a part of depression, and a wait-list condition where the participant waited for treatment for 8 weeks. Five women dropped out of the study early. Of the depression specific treatment, 64% of the women experienced full remission. The researchers state that, "Results from this small sample suggest that acupuncture can provide significant symptom relief in depression, at rates comparable to those of psychotherapy or pharmacotherapy" (397).

Samuels, Gropp, Singer, and Oberbaum (2008) conducted a literature review on acupuncture for psychiatric illness. They reported that acupuncture increases a variety of central nervous system hormones, including ACTH, serotonin, noradrenaline, and beta-endorphins. They also stated that it increases urinary levels of MHPG-sulfate, which is inversely related to the severity of symptoms of schizophrenia. Overall, they found that acupuncture has sometimes

had positive effects on both anxiety and depression, but that it is still unclear whether it is truly effective in alleviating these conditions. They also did not find any trials conducted for schizophrenia and acupuncture, and that there were conflicting results for the use of acupuncture in cases of substance abuse.

Finally, investigators (Strauss, Coeytaux, McDuffie, Nagi, and Williams, 2011) at the Department of Veteran's Affairs, under the Evidence-based Synthesis Program, examined studies that have been done on CAM and the effects that each type of CAM had in decreasing PTSD. They found that, overall, the highest quality evidence was for acupuncture. They stated that "…the findings from a single, good-quality RCT (randomized controlled trial) suggested that a 12-week course of acupuncture treatments was similar to group CBT (cognitive-behavioral therapy)… and more effective than no acupuncture in reducing PTSD symptoms and improving HRQOL (health-related quality of life). However, with only one study, conclusions about the use of acupuncture cannot be reliably drawn.

Biofeedback and Mental Health

Biofeedback is a potentially inexpensive, readily available, and non-invasive way of treating mental illnesses. Therefore, there are a variety of studies that have been done on its effectiveness in treating certain mental illnesses, such as anxiety. Henriques, Keffer, Abrahamson, and Horst (2011) conducted a study using college students to examine whether a computer-based heart rate variability biofeedback program might help in reducing anxiety and negative mood. The researchers started with a pilot study of nine students, and found that there were significant decreases in anxiety and negative mood after the program had been utilized for four weeks. They then conducted a second study with 35 students, using an immediate versus

delayed treatment design, and they found the same results (although they were slightly less significant). However, although the anxiety decreased, expected changes in psychophysiological make-up were not seen.

Pallavicini et al. (2009) also conducted a study using biofeedback. The study focused on the use of a biofeedback-enhanced virtual reality system that could be used for both relaxation and controlled exposure. In addition, each patient received a mobile phone that allowed them to have the virtual experience in an outpatient setting. The study only had 12 participants, but the researchers found that subjects that were in the virtual reality mobile group with biofeedback reported a higher decrease in some of the anxiety psychometric questionnaires than the subjects that were in the virtual reality mobile group without biofeedback or that were in the waiting list group.

Karavidas et al. (2007) conducted research with clinically depressed individuals using heart rate variability biofeedback training. They found that such training facilitates an increase in heart rate variability amplitude and a decrease in depressive symptoms. Zucker et al. (2009) conducted a similar study, but compared respiratory sinus arrhythmia (RSA) biofeedback to progressive muscle relaxation as adjunctive interventions for 38 patients with PTSD symptoms. The results showed significantly reduced depressive symptoms and increases in heart rate variability indices for the RSA biofeedback group. Increases in heart rate variability were significantly associated with alleviated PTSD symptoms. The researchers state that, "Overall, these results provide preliminary support for the efficacy of RSA biofeedback in improving physiological and psychological health for individuals with PTSD" (135). They propose that RSA feedback may be a useful treatment intervention for depression, as well as possibly for PTSD, insomnia, and substance use disorder.

Another biofeedback study (Tan, Dao, Farmer, Sutherland, and Gevirtz, 2011) was conducted partially to assess the feasibility, acceptability, and potential efficacy of using heart rate variability biofeedback as a treatment for post-traumatic stress disorder in veterans. The results suggested that heart rate variability biofeedback significantly reduced symptoms of post-traumatic stress disorder. The researchers also found that heart rate variability biofeedback was effective, feasible, and acceptable for veterans.

Finally, a meta-analysis conducted by Stevens et al. (2007) focused on whether complex psychotherapies are more effective than biofeedback and/or progressive muscle relaxation. The researchers examined 26 studies, and they found that complex treatments provided a small, significant improvement over biofeedback and progressive muscle relaxation. However, their results also supported the idea that both biofeedback and progressive muscle relaxation are therapeutically effective.

Chiropractic and Mental Health

According to a study conducted in 2002 (McFarland et al.), about 4% of individuals in the United States engage in chiropractics, and it is the most commonly used type of CAM (within the United States). However, one study found that less than 1% of visits to a chiropractor are due to a mental health complaint (Simon et al., 2004), which suggests that chiropractics are generally associated with the alleviation of physical health problems, not mental health problems. Thus, although there has been research on the effects of mental health problems on treating chiropractic issues (i.e., Dunn, Passmore, Burke, and Chicoine, 2009), there has been little research done on using chiropractics to alleviate mental health problems. However, a study conducted in 2002 (Russinova et al.) suggested that, "some individuals with

serious mental illness seem to benefit from… chiropractic" (1601). The researchers found that of individuals that used some type of CAM and were diagnosed with a serious mental illness, 13 percent of them went to a chiropractor.

Energy Healing and Mental Health

Energy healing, according to the National Cancer Institute, is "A form of complementary and alternative medicine based on the belief that a vital energy flows through the human body. The goal of energy healing is to balance the energy flow in the patient. It is used to reduce stress and anxiety and promote well-being." Despite the fact that it supposedly relieves anxiety, there have been very few studies conducted in terms of its effectiveness. McCaslin (2009) reviewed efficacy claims of energy psychology, and found that there is no evidence that energy psychology is efficacious. McCaslin states that, "…energy psychology advocates are not able to provide any evidence that the changes seen in any of their clients are related to acupressure, meridian points, or energy fields" (254). Meeks et al. (2007) was also doubtful of energy healing, and after reviewing randomized controlled trials, stated that mind-body and body-based therapies were more likely to have higher rates of positive results than energy- or biologically based therapies.

Despite this, Feinstein (2009) reports positive findings. He states that he found that "reports from more than a dozen countries, coming not only from practitioners, but also from independent local health care authorities whose responsibilities include identifying effective interventions, suggest strong favorable outcomes using energy psychology in the aftermath of

natural and human-made disasters" (268). This implies that energy healing may be more effective in treating mental illness than the literature implies.

In addition, qigong, which is a "…self-healing exercise…to prevent or dissolve blockages of energy, stimulate the circulation, and correct imbalances" (Schnauzer, 2006; 53), is thought to potentially reduce mental health problems. Tsang (2003) reported that qigong is a promising method for lessening suicide rates among elderly individuals with depression and chronic physical illness, and Johansson, Hassmen, and Jouper (2011) found that depression, anger, fatigue, and anxiety scores of individuals in a qigong group decreased more than for individuals in a control group. Chow and Tsang (2007) also did a speculative review of the literature on qigong and anxiety disorders, and proposed that "*qigong* can be considered as an alternative therapy to help meet the increasing demand of nonpharmacologic modalities in achieving biopsychosocial health for those suffering from anxiety in the general population" (831).

Exercise or Movement Therapy and Mental Health

It has been well documented that exercise is beneficial for improving mental health (i.e. in Servan-Schreiber, 2004). A study conducted by Shahidi et al. (2011) examined Laughter Yoga in comparison to exercise therapy in Iran. The study was composed of seventy depressed women between 60 and 80 years old who were put into three different groups: Laughter Yoga, exercise therapy, or control. It was found that Laughter Yoga was at least as effective as the group exercise program in improving depression and life satisfaction, and there was a significant difference in decrease in depression scores for both groups in comparison to the control group.

Cromarty, Robinson, Callcott, and Freeston (2004) conducted a study examining cognitive therapy and exercise for clients with panic and agoraphobia. They only obtained systematic data for 16 of the 30 participants, and out of these 16, the participants attended a mean of 6 sessions. Preliminary evidence showed that group cognitive-behavioral therapy followed by exercise targeting safety behaviors can be clinically successful, as well as acceptable, to clients.

A study conducted by Gorczynski and Faulkner (2010) examined the mental health effects of exercise/physical activity programs on people with schizophrenia or a schizophrenia-like illness. They did a meta-analysis of the literature, although the meta-analysis only included three small, randomized, controlled trials. Despite this, the results suggested that exercise therapy was feasible in this population, and that it could alleviate the symptoms of schizophrenia.

Ellis et al. (2007) also conducted a meta-analysis to examine the effects of exercise therapy on psychosis. They included ten studies, four of which were quantitative, two of which were qualitative, and four that used a mixed method design. Each of the study samples were small. They found that there was a positive trend toward improved mental health for those participants that utilized exercise. However, they noted that there is a need "for greater consistency within the research to determine the size of effects and the most successful type of intervention" (95).

Doyne et al. (1987) examined the effects of running or weight lifting on self-concept in 40 women that were clinically depressed. They found that there were significant improvements in self-concept for the exercise groups in comparison to the control groups. There were no significant differences between exercise groups. Therefore, it is stated that, "These findings indicate that both types of exercise conditions significantly reduce depression" (748).

Finally, Mead et al. (2009) conducted a meta-analysis examining exercise and depression. For the 23 trials (907 participants) that compared exercise with no treatment or a control intervention, a large clinical effect was seen. However, when the three trials (216 participants) that were most scientifically conducted were examined, it was found that there was a moderate clinical effect. It was also found that the effect of exercise did not differ from the effect of cognitive therapy.

Herbal Therapy and Mental Health

According to Gardner (2002), herbal products are becoming more and more mainstream. One study done by Kessler et al. (2001) suggested that 4.3% of depressed individuals, and 3.3% of those with panic disorder, used herbal medication. Studies of outpatient psychiatric patients have shown even higher rates, ranging from 15% to 24% (Knaudt et al., 1999; Matthews et al., 2003). In a study conducted by Roy-Byrne et al. (2005) the most commonly used herbal medicines and dietary supplements were St. John's wort, ginseng, ginko biloba, kava kava, melatonin, and valerian root. Because of the fairly high rates of use, there are a variety of studies that have been conducted on the various herbs and supplements. There are many different potential herbs, and although some have been found to not alleviate mental illness (i.e. Ginkgo biloba for seasonal affective disorder, Lingaerde et al., 1999 and St. John's Wort for ADHD, Weber et al., 2008), others are believed to (i.e. kava kava for anxiety disorders, Malsch and Kieser, 2001).

One study that was conducted on animal models examined herbal therapy and mental health. Zhang (2004) reviewed eighty-five individual herbs that were classified as anxiolytic, antidepressant, neuroleptic, antidementia, or anti-substance abuse herbs. Zhang states that, "A

considerable number of herbal constituents whose behavioral effects and pharmacological actions have been well characterized may be good candidates for further investigations that may ultimately result in clinical use" (1659). Despite only being conducted with animals, this study implies that herbal therapy may be extremely useful in decreasing mental illness symptoms in humans.

A variety of studies and meta-analyses have been done on the use of St. John's wort in major depression (Gaster and Holroyd, 2000; Kim et al. 1999). The results indicated that St. John's wort was as effective as a standard antidepressant, and more effective than a placebo. However, the studies had small sample sizes, a lack of data regarding long-term use, and other issues. In 2002, a larger, well-designed study was conducted, and it was found that St. John's wort was no more effective than placebo (Hypericum Depression Trial Study Group, 2002).

Numerous studies have also been conducted on the use of melatonin to alleviate mental health problems. Lewy et al. (1998) found that melatonin may improve depressive symptoms in seasonal affective disorder. In addition, Dalton et al (2000) found that melatonin decreases insomnia in individuals with depression, and Shamir et al. (2000) reported that melatonin improves sleep latency and quality in individuals with schizophrenia. However, despite the numerous studies suggesting that melatonin is beneficial, these trials were small and had numerous design limitations. Yet, in 2009, Maldonado, Reiter, and Perez-San-Gregorio conducted a review to summarize the potential use of melatonin in the treatment of mental disorders, and they imply that after investigating melatonin's effects on individuals, it is likely that it would alleviate mental health symptoms in bipolar disorder, depression, and schizophrenia.

Overall, it is unclear which herbal therapies might be beneficial for specific mental illnesses, but the data suggests that there are many potential herbs that could be advantageous for treating a variety of mental health problems. Although St. John's wort and melatonin are just two that are covered more fully here, there is a broad range of other herbal therapies that may also be helpful in treating mental illnesses.

High Dose/Mega-Vitamins and Mental Health

Certain high dose/mega vitamins are thought to help with particular mental health problems. Thus far, much of this research has been conducted within an older population. However, this research has suggested that levels of one or more B vitamins and/or homocysteine are correlated with depression (Bjelland et al. 2003; Kim et al. 2008; Sanchez-Villegas et al., 2009; Tiemeier et al. 2002). Recently, Kennedy et al. (2010) examined high-dose B vitamin complex with vitamin C and minerals on the mood of males. The researchers conducted a randomized, placebo-controlled, double blind, parallel groups trial with 215 males that were between 30 and 55 years old. They reported that supplementation of vitamins and minerals through dietary supplementations led to improved ratings of stress, mental health, and energy, as well as bolstered cognitive performance during intense mental processing. This implies that high-dose vitamins may decrease individual's mental health problems.

Benton et al. (1995) also examined the use of vitamin supplements to influence mood. The researchers gave 129 young adults either 10 times the recommended daily dose of 9 vitamins or a placebo (using a double-blind procedure) for one year. Males that took the vitamins reported themselves as feeling more "agreeable" after 12 months than males that had only taken the placebo. Similarly, females that took the vitamins reported themselves as feeling

more "agreeable," as well as more composed and having better mental health, than females that had only taken the placebo. This improved mood was particularly associated with high riboflavin and pyridoxine levels.

In 2000, Schlebusch et al. assessed the effects of a multivitamin mineral combination on the treatment of stress in 300 South Africans. At the start of the study, there were no differences between the two groups regarding demographics and baseline stress scores. However, the degree of improvement of stress was greater in the multivitamin-mineral group than in the placebo group. In addition, this degree of improvement was statistically significant, implying that this multivitamin-mineral combination was beneficial in relieving stress-related symptoms.

Similarly, Carroll et al. (2000) examined whether vitamin and mineral supplements might be associated with improved psychological status. They conducted a double-blind randomized-control trial over 4 weeks with 80 male volunteers who received either a multivitamin and mineral supplement (Berocca) or a placebo. Questionnaires were used to determine psychological state. According to the researchers, the "…findings demonstrate that Berocca significantly reduces anxiety and perceived stress." (220).

Sanders et al. (2011) also examined the use of high dose/mega vitamins. They researched the use of high dose vitamin D and its relationship with mental well being in women aged 70 or older. The researchers created a group that took a large amount of vitamin D, and a group that received a placebo. It was found that there were no significant differences between the vitamin D and placebo groups in terms of mental health. Therefore, their results suggested that vitamin D is not a beneficial intervention to prevent depressive symptoms in older women.

Homeopathy and Mental Health

Homeopathy uses infinitesimally small doses of herbs, minerals, and certain animal products to enact healing. The belief behind it is that substances that can cause symptoms in healthy people can cure similar symptoms in those who are ill. These substances are diluted to extremely small doses and then used in clinical practices. Linde et al. (1997) conducted a meta-analysis of 89 studies done on the effectiveness of homeopathy. The results suggested that the clinical effects of homeopathy are not completely due to placebo, but they also found insufficient evidence from the studies to claim that homeopathy was definitively efficacious for a specific clinical condition.

Very few studies examining the use of homeopathy to alleviate mental health problems have been conducted. There was a pilot study conducted by Jacobs et al. (2005) to examine the effects of homeopathy on attention-deficit/hyperactivity disorder (ADHD) in children. They found that there was no evidence to support that homeopathy had a therapeutic effect on children with ADHD. Bonne et al. (2003) conducted a study to examine the effects of homeopathy on generalized anxiety disorder. They found that there was significant improvement for both the homeopathy group and the placebo group during the study, but that no group effect was observed.

Pilkington et al. (2005) conducted a systematic review of the studies that had been conducted on the effects of homeopathy on depression. The researchers found that there were only two randomized controlled trials that had been done on homeopathy and depression, and that one of these had a sample set of 11 individuals due to recruitment problems. They thus concluded that, "A comprehensive search for published and unpublished studies has demonstrated that the evidence for the effectiveness of homeopathy in depression is limited due

to lack of clinical trials of high quality" (153). Pilkington et al. (2006) conducted a second meta-analysis, examining the effects of homeopathy on anxiety and anxiety disorders. Once again, they were unable to draw conclusions on the efficacy of homeopathy for anxiety due to limited evidence. However, they noted that surveys have suggested that homeopathy is used fairly frequently by individuals that suffer from anxiety, and that therefore, if it is shown to be effective, homeopathy may have benefits in terms of acceptability to and lack of adverse effects on patients.

Hypnosis and Mental Health

According to Mottern (2011), "hypnosis is widely recognized as a safe and effective treatment for a variety of physical and psychological complaints, ranging from chronic pain management to generalized anxiety disorder, post-traumatic stress disorder and sexual dysfunction" (53). In 1995, Kirsch, Montgomery, and Sapirstein performed a meta-analysis on 18 studies in which cognitive-behavioral therapy was compared with the same cognitive-behavioral therapy (CBT) combined with hypnosis. The results suggested that adding hypnosis to CBT substantially enhanced the treatment outcome. In fact, the average client that received CBT and hypnosis showed at least 70% greater improvement than clients receiving only CBT.

Shih et al. (2009) also conducted a meta-analysis, but they studied the efficacy of hypnosis in the treatment of depressive symptoms. Six studies qualified for their meta-analysis, and they found that hypnosis significantly improved symptoms of depression. Due to these results, they suggested that hypnosis is a potential nonpharmacologic intervention for depression.

A variety of case studies have also been done on the use of hypnosis. Schreiber (2010) studied the use of hypnosis with major depressive disorder in five case studies. Individual

cognitive therapy techniques were used in addition to hypnosis. It was found that after only seven sessions of hypnosis, the clients' behavior evidenced both less depression and less anxiety. Degun-Mather (2001) also conducted a case study on the use of hypnosis. She examined the treatment of PTSD in a British war veteran using hypnosis, and she found that at the end of the therapy, the veteran was basically symptom-free and was able to regain emotional and social contact with those around him. Overall, nearly every study in the literature has found hypnosis to be beneficial in alleviating mental health symptoms in the general population.

Imagery Techniques and Mental Health

According to Arbuthnott, Arbuthnott and Rossiter (2001), "Imagery techniques involve the mental generation of perceptual experiences in the absence of external perceptual stimulation" (123). They note that imagery alone or in combination with other methods (like hypnosis or music) has been shown to be effective in treating stress (Aylwin, 1988; Hammer, 1996), panic attacks (Der & Lewington, 1990), and PTSD (Kuch, Swinson, & Kirby, 1985). Imagery rehearsal therapy is the most commonly used technique to treat trauma-related nightmares (Davis & Wright, 2006), and imagery rescripting, which is a technique in which an image is modified in a specific way to decrease an individual's stress, is thought to be potentially efficacious in treating PTSD (Long and Quevillon, 2009).

Eye movement desensitization reprocessing (EMDR) has also recently been proven to be effective. EMDR, put in simple, brief terms, is a highly structured treatment that helps a client process past traumatic events. The client does this by focusing on a traumatic image, a negative belief associated with it, and related body sensations, while allowing their eyes to move back and

forth for 15 seconds. Recent studies have demonstrated that EMDR-like eye movements decrease the vividness of memory images and the associated affect.

In 1998, Carlson et al. found that clients reported a 78% decrease in PTSD symptoms after 12 sessions of EMDR. This decrease was maintained at a 9-month follow-up. Also in 1998, Van Etten and Taylor conducted a meta-analysis of all published studies on psychological and drug treatments for PTSD. They stated that, "The results of the present study suggest that EMDR is effective for PTSD, and that it is more efficient than other treatments" (140). Two years later, the International Society for Traumatic Stress Studies reported that EMDR is effective for treating PTSD (Chemtob, Tolin, van der Kolk, & Pitman, 2000). More recently, Marcus, Marquis, and Sakai (2004) conducted a study using EMDR to treat PTSD in an HMO setting, and they found that a relatively small number of EMDR treatment session led to significant mental health benefits for clients that were maintained over time.

Massage Therapy and Mental Health

Massage is commonly known to improve circulation and relax muscles. In addition, there are a variety of mental health benefits that have become associated with it. One study, conducted by Field et al. (1997), was done on women who had experienced sexual abuse. They were given a 30-minute massage twice a week for one month, and following the massage, the women reported feeling less depressed and less anxious. In addition, their salivary cortisol levels (which are an indication of stress levels) decreased by around 25%. Another study done by Field et al. (2008) compared a group of 112 pregnant, depressed women, half of which received both interpersonal psychotherapy and massage therapy, and half of which received only interpersonal psychotherapy. The researchers found that the psychotherapy plus massage group had greater

decreases than the psychotherapy-only group on depression scores, anxiety scores, and cortisol levels.

Garner et al. (2008) conducted a pilot study examining the effect of massage therapy on stress, anxiety, and aggression in young adults on a psychiatric inpatient unit. They split 47 young adults into two groups (a "treatment as usual" group, and a "treatment as usual plus massage therapy" group). They found a significant reduction in self-reported anxiety and cortisol levels immediately following both the initial and final massage therapy sessions. The researchers stated, "Massage therapy had immediate beneficial effects on anxiety related measures and may be a useful de-escalating tool for reducing stress and anxiety in acutely hospitalized psychiatric patients" (414).

Although many studies found that massage therapy had a positive effect on client's mental health problems, Sherman et al. (2010) conducted a study with 68 individuals that had been diagnosed with generalized anxiety disorder. They compared the effects of therapeutic massage, thermotherapy, or relaxing room therapy for a total of 10 sessions over 12 weeks. They found no differences between groups in terms of reduction of anxiety. In other words, massage therapy was not superior to the control treatments, and since relaxing room treatment was less expensive, they reported that this should be used in place of massage therapy when treating clients with generalized anxiety disorder.

Prayer or Other Spiritual Practice and Mental Health

According to Rosmarin, Pargament, and Flannely (2009), "…spirituality and religion are generally associated with higher levels of physical and mental well being" (244). Therefore, unsurprisingly, a survey done in 2009 on the role of CAM and spirituality in recovery from

mental illness suggested that prayer was one of the holistic healing practices that many individuals used to enhance their mental health (Russinova, 2009). In fact, according to Barnes, Powell-Griner, McFann and Nahin (2004), prayer is the third most frequently used type of CAM. Wachholtz and Sambamoorthi (2011) examined national trends in prayer use as a coping mechanism for health issues. They reported that in the United States, a considerable percentage of the population uses prayer for health concerns. They report that this percentage increased in a 5-year period from 43% in 2002 to 49% in 2007. In addition, prayer is the one type of CAM that is used at least as often, if not more often, by Latinos and African Americans as by other ethnic groups (Graham et al., 2005).

Lawler-Row & Elliott (2009) conducted a study on the health of older adults and their use of religious activity and spirituality. The study included 425 adults, ranging from 50 to 95 years old, and 89.6% of them were Caucasian Americans. Each individual was given a questionnaire packet that included demographic questions, and several surveys related to spiritual well being, religious involvement, health outcomes, health behaviors, and social support. Regression analyses suggested that spirituality and prayer predicted psychological well-being, subjective well-being, physical symptoms and depression, even after age, gender, healthy behaviors, and social support had been taken into account.

Ano and Vasconcelles (2005) specifically looked at the affects of religion on psychological adjustment to stress. They did a meta-analysis using 49 relevant studies to determine the efficacy of religious coping methods for people dealing with stressful situations. They found that the results generally indicated that positive and negative forms of religious coping were correlated with positive and negative psychological adjustment to stress, respectfully.

Wachholtz and Pargament (2008) did a study examining whether spiritual meditation was more effective in enhancing pain tolerance and reducing migraine headache related symptoms than secular meditation and relaxation. Eighty-three individuals that had not done meditation before were taught spiritual meditation, internally focused secular meditation, externally focused secular meditation, or muscle relaxation which they practiced for 30 minutes a day for a month. According to the researchers, "Compared to the other three groups, those who practiced spiritual meditation had greater decreases in the frequency of migraine headaches, anxiety, and negative affect, as well as greater increases in pain tolerance, headache-related self-efficacy, daily spiritual experiences, and existential well being" (351). In other words, having a spiritual practice may help to alleviate anxiety (see also Koenig, McCullough, & Larson, 2001, for review).

Relaxation or Meditation Techniques and Mental Health

Relaxation and meditation techniques have been found to be extremely beneficial within the general population (i.e., Burns, Lee, & Brown, 2011; Hofmann, Sawyer, Witt, & Oh, 2010; Ke-Ping, Whei-Ming, & Chen-Kuan, 2009; Ost & Breitholtz, 2000; Ost & Westling, 1995). This is true within the military population as well. Stetz et al. (2011) conducted a study on the use of technology-enhanced relaxation techniques for military medical personnel. Thirty individuals were in the experimental group and went through the technology-enhanced relaxation training. This included being shown relaxing images and calming scenes while practicing techniques such as progressive muscle relaxation and controlled breathing. Another thirty

individuals were in the control group, and they did not have the technology-enhanced relaxation training. Anxiety levels were significantly decreased amongst those in the experimental group.

Another study, conducted by Watson and James (1997), also examined the effects of relaxation on veterans. Ninety male Vietnam veterans with posttraumatic stress disorder were put in one of three groups: a relaxation instruction group, a relaxation instruction with deep breathing exercises group, or a relaxation instruction with deep breathing training and thermal biofeedback group. They found that each of the treatments were mildly therapeutic, but that the deep breathing and thermal biofeedback did not produce improvement beyond the simple instructions to relax in a comfortable chair.

Rosenthal, Grosswald, Ross, and Rosenthal (2011) conducted an uncontrolled pilot study on the effects of meditation (transcendental) among veterans. Five veterans were trained in the technique and then followed for 12 weeks. They found that symptoms of PTSD were significantly alleviated (by about 50%), and that the veteran's quality of life was significantly improved. However, due to the extremely small sample size and the uncontrolled nature of the study, they concluded that further studies need to be done on the topic.

Kearney et al. (2012) conducted a prospective, longitudinal follow-up study to examine the outcomes of veterans who had participated in mindfulness-based stress reduction (MBSR) (a mixture of relaxation and meditation) as an adjunct to their usual care. Ninety-two veterans who agreed to complete research measures in addition to participating in the MBSR class series were studied. After six months of participating in the MBSR, there were significant improvements in PTSD symptoms and depression, and 47.7% of the veterans indicated clinically significant improvements in PTSD symptoms. Thus, this study indicates that MBSR holds promise as an

intervention for PTSD, and it suggests that further study should be done through randomized controlled trials.

Vujanovic, Niles, Pietrefesa, Schmertz, and Potter (2011) did a review of the literature on the use of mindfulness in treating PTSD. The review suggests that mindfulness is beneficial in alleviating PTSD symptoms, and it reports that Niles, Klunk-Gillis, Silberbogen, & Paysnick (2009) suggested that even a brief introduction to mindfulness is able to significantly reduce veterans' PTSD symptoms. However, it also notes that "Currently, there is a significant dearth of empirical work supporting the implementation of mindfulness training as an adjunct to the empirically supported treatments for PTSD" (28). Thus, more research needs to be done on this topic.

Finally, investigators (Strauss, Coeytaux, McDuffie, Nagi, and Williams, 2011) at the Department of Veteran's Affairs, under the Evidence-based Synthesis Program, found that of all the types of CAM, relaxation interventions had the most evidence for treating PTSD. There were three randomized-controlled trials that examined forms of breathing and muscle relaxation, but the trials were preliminary and there were flaws in the design that limited their ability to interpret the study findings. However, the findings were positive overall. In addition, there was a significant lack of well-designed trials for meditation therapies, and the studies that had been done were on concentrative meditative techniques. There was also a lack of scientific rigor in the studies that were done and a need to replicate these preliminary findings. Yet, as with relaxation interventions, the early evidence was promising. However, overall, few conclusions can be drawn until a well-designed study is conducted.

Yoga and Mental Health

Yoga has recently become more popular, with about 15 million practitioners in the United States (Smith, Greer, Sheets, and Watson, 2011). Despite this, there is a surprising lack of research that has been done on the mental health benefits of yoga. Smith, Greer, Sheets, and Watson (2011) conducted a study on students that had mild or moderate depression, anxiety, or stress. They were then put in an integrated yoga group (which included an ethical and spiritual component), yoga as exercise group, or a control group. Eighty-one students participated in the study, and over time, participants in both yoga groups experienced decreased depression and stress as compared to the control group. However, only the integrated yoga group experienced significantly decreased anxiety-related symptoms and decreased salivary cortisol (implying decreased stress) by the end of the study. Thus, this study implies that yoga provides mental health benefits, especially if it contains an ethical and spiritual component.

Another study, conducted by Woolery, Myers, Stemliebm, and Zelter (2004), examined the effects of a short-term lyengar yoga course on depression in young-adults. Twenty-eight volunteers between the ages of 18 and 29 that were experiencing mild symptoms of depression participated in two one-hour yoga classes each week for five weeks. Subjects who participated in the yoga course, versus those who did not, exhibited significant decreases in subjective levels of depression and trait anxiety. These effects were first seen halfway through the yoga class, and were then maintained until the end. These results indicate that yoga is beneficial in improving mood, although more complex studies with larger sample sizes need to be done to confirm this.

Special Diets and Mental Health

Many individuals with mental health problems eat a special diet in order to attempt to lesson mental health symptoms. For example, the Feingold diet is regularly used in an attempt to

decrease ADHD symptoms in kids. However, there are many other diets that individuals also try, many of which do not have a specific name but are supposed to have certain benefits. According to one study, conducted by the National Center for Complementary and Alternative Medicine (Elkins, Marcus, Rajab, and Durgam, 2005), 14 percent of psychotherapy clients (out of a sample of 262 people) choose to eat a special diet for reasons other than weight loss. However, no studies were found on the efficacy of using various special diets to decrease mental health problems in adults.

Spiritual Healing by Others and Mental Health

Religious advisors that provide spiritual healing in the United States are generally associated with providing advice and moral support for individuals that are dealing with difficult life events. In many organized religions, ministers are trained on how to recognize and work with individuals that are suffering from psychological problems (Leavey, Loewenthal, and King, 2007). In fact, Harris, Edlund, and Larson (2007) examined the National Survey on Drug Use and Health, and they found that the individuals with the most severe mental health related disorders in the United States have a higher rate of contact with mental health services if they are also practicing a religion.

One of the main studies in the United States that has examined the role of religious advisors in mental health is the 1990-1992 National Comorbidity Survey. This survey indicated that 2.6% of the population had sought help from a religious provider within the past year, and of those individuals that reported having sought help for a mental health problem, 25% of them reported having first consulted a religious advisor (Wang, Berglund, and Kessler, 2003). This

study reported that, overall, the clergy play an extremely important role in the delivery of mental health care in the United States.

Studies have also revealed the positive effects of military chaplains on veterans. For example, Seddon, Jones, and Greenberg (2011) reported that, "…chaplains are capable of contributing significantly to the mental health of armed forces personnel if they are able to do so in informal and collaborative way" (1357). Similarly, Mendenhall (2009) hypothesizes that, "Military chaplains may help soldiers turn toward the divine and open themselves to post-trauma growth" (13). Finally, in a 1969 article that one could easily argue still holds relevant, Berken and Eisenstat note that since using psychiatric services in the military has a stigma attached to it, chaplains are often used as pastoral counselors. By doing this, individuals in the armed forces can receive psychiatric help and support with less fear for what the consequences might be.

Conclusion from the Literature

The literature explored supports the examination of the relationship between CAM and mental health problems in female veterans. The studies cited imply that numerous types of CAM relieve mental health problems, that veterans are engaging in CAM, and that veterans have high rates of mental illness symptoms and diagnoses. However, the literature does not suggest how female veterans' use of CAM compares with male veterans' use, and what the characteristics of female veterans that are engaging in CAM are. Also, none of the literature examines whether female veterans that exhibit mental health problems are more likely to engage in certain types of CAM than female veterans that do not. Thus, my research question is this: What are the demographic and clinical characteristics of female veterans that use CAM?

I hypothesize that CAM use will be significantly correlated with age, level of education, and whether or not an individual has private health insurance, which are all in accordance with Ni et al.'s (2002) findings. Although Ni et al. found that whether or not an individual has health insurance affects CAM use, I will go further with this and hypothesize that having private health insurance versus public health insurance will affect CAM use, since private health insurances tend to cover more services than public health insurances. I also hypothesize that more Caucasian/White and Latino/Hispanic female veterans will utilize CAM than African American/Black and Asian/Pacific Islander female veterans, since Kronenberg et al. (2006) found that Caucasian and Mexican American women in the United States are significantly more likely to engage in CAM than African American or Chinese American women. In addition, I hypothesize that the inability to get mental health care in the past six months will be associated with higher CAM use, since Micek et al. (2006) found that lower overall satisfaction with VA primary care was associated with more CAM use.

The hypothesis that female veterans will most often utilize exercise or movement therapy (since this is one of the most acceptable way to engage in a form of CAM in the military) is also tested in this study. Similarly, the hypothesis that female veterans will have high rates of prayer or other spiritual practice and spiritual healing by others, based on U.S. surveys done by Ni et al. (2002) and Barnes et al. (2004), as well as due to the military's acceptance of religion, is tested. I also hypothesize a high rate of use of chiropractics, based on Ni et al.'s (2002) and Micek et al.'s (2006) findings, and the fact that chiropractics is no longer viewed as CAM in the military.

Based on the fact that the VA reports using CAM to decrease stress, as well as to reduce symptoms of anxiety, PTSD, depression, and substance abuse, I hypothesize that receiving treatment for PTSD upon return from deployment, receiving treatment for

anxiety/depression/other emotional disorders upon return from deployment, receiving treatment for drug abuse/alcoholism upon return from deployment, cigarette use, combat exposure, military sexual trauma, and force or threat of force to have sexual contact will each be associated with CAM use. I also hypothesize that receiving treatment for PTSD, depression, and/or anxiety upon return from deployment will be significantly associated with both prayer or other spiritual practice and spiritual healing by others, since these are common forms of CAM in the U.S. and in the U.S. military, and they require relatively little effort from the individual with the mental health issue. They are also both thought to potentially have beneficial effects on individuals with mental health problems (i.e., Allen, Schnyer, and Hitt, 1998; Mendenhall, 2009; Seddon, Jones, and Greenberg, 2011). Even though herbal therapy is also commonly used in the U.S., since it is not offered by the VA, it will most likely not be significantly associated with seeking treatment for PTSD, depression, and/or anxiety upon return from deployment. Similarly, although chiropractic is offered by the VA, is relatively easy to engage in, and is commonly used in the U.S., it will likely not be significantly associated with seeking treatment for PTSD, depression, and/or anxiety after returning from deployment since it is not generally thought to decrease mental health problems.

Conceptual Framework

I will be using the Health Belief Model to understand the relationships between female veterans and CAM use. The Health Belief Model is "a major organizing framework for explaining and predicting acceptance of health and medical care recommendations" (1; Janz and Becker, 1984). The model hypothesizes that behavior depends almost entirely on two variables. The first is the value that a person places on a specific goal, and the second is the person's estimate that a certain action will achieve that goal. Therefore, in the case of health-related behavior, the model hypothesizes that a person's behavior depends on their desire to avoid illness (or to become healthy if already ill), and their belief that a certain action will prevent (or lessen) illness.

More specifically, the Health Belief Model consists of four dimensions: perceived susceptibility, perceived severity, perceived benefits, and perceived barriers. Perceived susceptibility refers to an individual's subjective perception of their risk of developing a condition. Perceived severity refers to an individual's views on the medical and clinical consequences and the social consequences of developing a condition. Perceived benefits has to do with one's beliefs regarding the effectiveness of the actions available in reducing the threat of developing a condition. Finally, perceived barriers are the potentially negative outcomes of a

certain health action (for example, a recommended action may be dangerous, expensive, unpleasant, time-consuming, etc.).

The Health Belief Model closely relates to the proposed study. This model implies that female veterans with mental health problems will consider using the types of therapies and medications that they believe will have the highest number of potential benefits. However, they will also take into account the number of potential negative outcomes the therapy and/or medication have. They will then decide which of these will have the most benefits and fewest barriers for them personally. Therefore, female veterans will utilize the types of CAM that have more perceived benefits and/or fewer perceived barriers than conventional medicine.

It is also important to understand the concept of CAM. Eisenberg at al. (1993) stated that, "unconventional therapy refers to medical practices that are not in conformity with the standards of the medical community" (246). He went on to define unconventional therapies "…as medical interventions not taught widely at U.S. medical schools or generally available at U.S. hospitals" (246). However, this was before the term CAM came into use. It should be noted that although CAM has been lumped together into one category, "complementary" and "alternative" actually have different meanings. Complementary medicine is supposed to be used for health practices that supplement, instead of replace, biomedicine. Thus, conventional physicians may recommend or prescribe complementary therapies such as movement therapy, acupuncture, or relaxation. In contrast, alternative therapies are health practices that are used instead of biomedicine such as herbal remedies. Thus, the term CAM has been defined by Ernst et al. (1995) as a "…diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, satisfying a demand not met by orthodoxy, or

diversifying the conceptual frameworks of medicine" (506). This is how CAM will be defined for the purpose of this study.

Methodology

Study Design

The Women Veterans Cohort Study (WVCS) is a two-phase longitudinal study examining healthcare utilization, health outcomes, and costs of care among a cohort of OEF/OIF (Operation Enduring Freedom/Operation Iraqi Freedom) male and female Veterans in Veterans Affairs (VA) care. The sampling frame for the overall study is the OEF/OIF roster, provided to the VA by the Department of Defense Manpower Data Center's (DMDC) Contingency Tracking System. The OEF/OIF roster is a database of veterans who have separated from OEF/OIF military service and enrolled in VA healthcare between 10/1/2001-04/30/10 (n = 750,000). Roster information includes veterans' sex, race, date of birth, deployment dates, armed forces branch (Army, Navy, Air Force, Marines, or Coast Guard) and component (National Guard, Reserve or active duty). Seventy-two thousand women served in OEF/OIF and received VHA health care after return from deployment. Overall, 14% (1179/8392) of all invited OEF/OIF

veterans agreed to participate in the WVCS prospective cohort, and 66% (777/1179) of those veterans consented and enrolled in the study.

For this study, the target population was OEF/OIF veterans of any age or ethnicity. Each female veteran that was recruited was matched with a male control veteran. Individuals were excluded from this study if they did not seek treatment at a VA in either Connecticut or Indiana. Since veterans were only sampled from two locations, the findings may be based on samples that are less diverse than in reality. This will be important to keep in mind as conclusions are drawn, since findings will not necessarily be applicable to the entire VA population, but to a select subset. Overall, the study population was U.S. veterans who sought treatment at a VA in either Connecticut or Indiana, enrolled in the study, and took the online survey. The trial sample size was 666 U.S. veterans (365 female veterans and 301 male veterans).

The portion of the WVCS focused on in this study is a prospective survey of male and female OEF/OIF veterans at two large VA facilities, one in the northeast and one in the midwest. Mailings (a letter and pre-addressed envelope) were sent to all male and female veterans on the OEF/OIF roster who lived within 300 miles of each facility (n=8900). If there was no response to the first mailing, two more mailings were sent out. If the veteran returned one of the letters in these mailings, it was followed by a telephone call and/or e-mail from the study coordinator to schedule an appointment, obtain consent and other authorization forms, and collect baseline survey data.

Patients expressing interest in the study either met with or called the research coordinator. Prospective subjects were read a description of the study, had questions answered about enrollment and possible adverse consequences of participation, and were screened for eligibility. Eligibility criteria included the ability to speak English and participation in Operation Enduring

Freedom or Operation Iraqi Freedom. Those who agreed to participate were given an appointment at which they signed the informed consent and were asked to complete the baseline survey.

Even after participants had consented to participating in the study, they had the option to stop or to opt out of the study at any time. To protect participants' identity, the survey was paired with an identification number that was linked to the participant's e-mail address. This identifying information was filed separately from the participant's responses in TrialDB, which is a secure, web-based database and survey system. Once participants had completed the survey, they were paid twenty dollars as compensation for their time. Participants were also asked to complete follow-up surveys one and two years, respectively, after the baseline survey.

Proposed Survey Measures:

The following survey measures will be used to look at CAM use amongst female veterans (Please see Appendix D for a copy of the entire survey):

Survey Measure	Description
CAM Use	Have you used any complementary, alternative, or nontraditional therapies in the past 12 months to treat a physical health problem, to treat an emotional or personal problem, to maintain or enhance wellness, or to prevent disease? Participants were asked to identify the 3 types of CAM that they used most often. These types included: Not applicable, Acupuncture, Biofeedback, Chiropractic, Energy healing, Exercise or movement therapy, Herbal therapy, High dose/ mega-vitamins, Homeopathy, Hypnosis, Imagery techniques, Massage therapy, Prayer or other spiritual practice, Relaxation or meditation techniques, Yoga, Special diets, and Spiritual healing by others.

The following survey measures will be used to look at the demographic characteristics of female veterans that engage in CAM (Please see Appendix D for a copy of the entire survey):

Measure	Description
Age	Age is not a measure on the WVCS survey. However, when a participant is "registered" on the TrialDB database, the participant's birth month and year are entered. This provides a more or less accurate representation of the participant's age.
Racial or Ethnic Group	Participants were asked whether they identify primarily as: White or Caucasian but not Hispanic or Latino, Black or African-American but not Hispanic or Latino, Hispanic or Latino, or Asian or Pacific Islander.
Sexual Orientation	Participants were asked whether they identify primarily as: heterosexual, gay or lesbian, bisexual, celibate or asexual, or not sure.
Current legal marital status	Participants were asked whether they identify their legal martial status as: married, divorced, separated, widowed, or single.
Most recent service branch in the U.S. military	Participants were asked whether their most recent service branch in the military was: air force, army, marine corps, navy, or civilian employee.
Highest level or year of school completed	Participants were asked whether their highest level or year of school was: high school diploma or G.E.D.; A.A. or associates degree, junior or 2-year college; B.A., B.S., Bachelor's, 4 year college; or Graduate or professional degree.
Health Insurance	Do you currently have any private health insurance?
	Do you currently have any form of government-provided health insurance?

Service-connected disability rating	Do you have a service-connected disability rating? Participants were asked to identify whether the answer was: yes, no, or pending/under review. A service-connected disability rating is given to a veteran who was "disabled by an injury or illness that was incurred or aggravated during active military service" (United States Department of Veterans Affairs, 2011). To be eligible for such a rating, the veteran had to have been terminated through separation or discharge under conditions other than dishonorable. The rating is based on how chronically disabled the veteran is, and it determines the monetary compensation paid to the veteran for their disability. To assign ratings, the VA uses the Schedule for Rating Disabilities in Title 38, U.S. Code of Federal Regulations, Part 4. These ratings are based on degrees of disability on a scale from 0 to 100 percent, in increments of 10 percent. The ratings determine the amount of compensation payments made to the veterans. A zero-rating means that a disability exists, but that it does not entitle the veteran to compensation payments.
Unable to get needed mental health care in last 6 months	During the last 6 months, did you ever need mental health care but could not get it?

The following survey measures will be used to look at the clinical characteristics of female veterans that engage in CAM (Please see Appendix D for a copy of the entire survey):

Survey Measure	Description
Post Traumatic Stress Disorder	Since return from your most recent deployment have you received medical treatment for… post traumatic stress disorder (PTSD)
Anxiety, depression, or some other emotional disorder	Since return from your most recent deployment have you received medical treatment for… anxiety, depression, or some other emotional disorder
Currently smoke cigarettes	Participants were asked to identify whether they currently smoke cigarettes: every day, some days, or not at all.
Drug abuse or alcoholism	Since return from your most recent deployment have you received medical treatment for,,, drug abuse or alcoholism
Combat Exposure Scale	Participants were asked to identify whether the level of combat they had been exposed to was: light, light to moderate, moderate, moderate to heavy, or heavy.
Military Sexual Trauma	While you were in the military, did you receive uninvited and unwanted sexual attention, such as touching, cornering, pressure for sexual favors, or sexual remarks?
	While you were in the military, did someone ever use force, or threat of force, to have sexual contact with you against your will?
Other Sexual Trauma	Were you ever subjected to uninvited or unwanted sexual attention? (other than contact covered in questions above) (e.g. touching, cornering, pressure for sexual favors, verbal remarks).
Life threatening illness	Have you ever had a life threatening illness?
Robbed or witnessed an armed robbery	Have you ever been robbed or witnessed an armed robbery?
Physically harmed by stranger	Have you ever been hit, beaten up or badly hurt by a stranger or by someone you didn't know?
Threatened physically	Has anyone ever threatened to kill you or cause you serious physical harm?
Exposed to warfare or combat	Have you lived, worked or had military service in a war zone and been exposed to warfare or combat (e.g. been in the vicinity of a rocket attack, people being fired upon, seeing someone get wounded or killed)?

Data Analysis:

Data analysis was done using Statistical Analysis Software (SAS). The percentage of female veterans engaging in CAM was calculated, and rates of use for specific types of CAM were determined. Multiple chi-square tests were run in order to assess the degree of association between two nominal (categorical) variables. In addition, a t-test was run in order to determine whether two observed means were statistically different from one another. Levels of significance used were .001, .01, and .05. Significance values equal to or above .05, but less than .10, indicated a trend. The purpose of the data analysis was to determine the percentage of female veterans that are engaging in CAM, the types of CAM that are most used by female veterans, and the characteristics of female veterans that are engaging in CAM.

Results

In the past twelve months, 38.1% (n=136) of female veterans had used CAM in order to treat a physical health problem, emotional or personal problem, maintain or enhance wellness, or prevent disease (See Table 1).

Table 1: Use of alternative therapy by female veterans

Used alternative therapies	n	Percent
Yes	136	38.1
No	221	61.9

Chi-square tests were conducted to assess the relationship between use of CAM and demographic characteristics of female veterans. This test revealed that the percentage of female veterans that used CAM differed by racial/ethnic group, $\chi^2(3, N=353) = 20.13, p<.001$). Hispanic and Latino women were more likely to engage in CAM therapy than women from other racial/ethnic groups. In addition, they also differed in terms of currently having private health insurance $\chi^2(1, N=357) = 6.18, p<.05$), having a service-connected disability rating $\chi^2(2, N=348) = 9.10, p<.05$), and needing mental health care in the last 6 months, but being unable to get it $\chi^2(1, N=347) = 6.21, p<.05$). Women with private health insurance or who had a service-connected disability rating (or who had one pending/under review) were more likely to engage in CAM. Also, women that had needed mental health care in the last 6 months, but had been unable to get it, were more likely to engage in CAM (See Table 2).

Table 2: Demographic characteristics of women who engage in CAM

Characteristic	Response	Proportion of women who engaged in CAM n[%], unless otherwise noted	Proportion of women who did not engage in CAM n[%], unless otherwise noted	P Value
Age (calculated by TrialDB from month and year of birth)	N/A	Mean(sd) 32.4 (10.3)	Mean(sd) 31.9 (10.6)	0.425
What is your main racial or ethnic group?	White or Caucasian, but not Hispanic or Latino	110 (81.5)	188 (85.1)	<0.001***
	Black or African-American, but not Hispanic or Latino	3 (2.2)	21 (9.5)	
	Hispanic or Latino	20 (14.8)	8 (3.6)	
	Asian or Pacific Islander	2 (1.5)	4 (1.8)	
How would you describe your current sexual orientation?	Straight or heterosexual	113 (85.6)	183 (84.7)	0.700
	Gay or lesbian	5 (3.8)	12 (5.6)	
	Bisexual	9 (6.8)	9 (4.2)	
	Celibate or asexual	4 (3.0)	10 (4.6)	
	Not sure	1 (0.8)	2 (0.9)	
What is your current legal marital status?	Married	62 (45.9)	82 (37.1)	0.478
	Divorced	29 (21.5)	47 (21.3)	
	Separated	2 (1.5)	4 (1.8)	
	Widowed	1 (0.7)	3 (1.4)	
	Single	41 (30.4)	85 (38.5)	
What was your most recent service branch in the military?	Air Force	26 (19.1)	39 (17.6)	0.374

	Army	87	(64.0)	157	(71.0)	
	Marine Corps	8	(5.9)	6	(2.7)	
	Navy	15	(11.0)	18	(8.1)	
	Civilian Employee	0	(0.0)	1	(0.5)	
What is the highest level or year of school you completed?	High School diploma or G.E.D.	26	(19.3)	66	(29.9)	0.144
	A.A. or associates degree, junior or 2-year college	29	(21.5)	47	(21.3)	
	B.A., B.S., Bachelor's, 4 year college	59	(43.7)	78	(35.3)	
	Graduate or professional degree	21	(15.6)	30	(13.6)	
Do you currently have any private health insurance?	Yes	89	(65.4)	115	(52.0)	0.013*
	No	47	(34.6)	106	(48.0)	
Do you currently have any form of government-provided health insurance?	Yes	43	(31.6)	77	(35.2)	0.493
	No	93	(68.4)	142	(64.8)	
Do you have a service-connected disability rating?	Yes	85	(64.4)	113	(52.3)	0.011*
	No	35	(26.5)	91	(42.1)	
	Pending / Under review	12	(9.1)	12	(5.6)	
During the last 6 months, did you ever need mental health care but could not get it?	Yes	23	(17.3)	18	(8.4)	0.013*
	No	110	(82.7)	196	(91.6)	

Note: ^{t} p<.10 *p<.05 **p<.01 ***p<.001

Chi-square tests were conducted to assess the relationship between use of CAM and clinical/mental health characteristics of female veterans. This test revealed a trend toward significant differences in CAM use between female veterans that abused drugs or alcohol and those that did not $\chi^2(1, N=309) = 2.74, p < .10$. Female veterans that abused drugs or alcohol tended to be less likely to use CAM than other female veterans (See Table 3).

Table 3: Clinical and mental health characteristics of female veterans who engage in CAM

Characteristic	Response	Proportion of women who engaged in CAM n[%]	Proportion of women who did not engage in CAM n[%]	P Value
Post Traumatic Stress Disorder	Yes	53 (40.8)	71 (37.4)	0.54
	No	77 (59.2)	119 (62.6)	
Anxiety, depression, or some other emotional disorder	Yes	76 (58.5)	109 (57.1)	0.804
	No	54 (41.5)	82 (42.9)	
Do you NOW smoke cigarettes every day, some days or not at all?	Every day	14 (25.9)	32 (32.0)	0.732
	Some days	8 (14.8)	14 (14.0)	
	Not at all	32 (59.3)	54 (54.0)	
Drug abuse or alcoholism	Yes	3 (2.4)	12 (6.5)	0.098[t]
	No	122 (97.6)	172 (93.5)	
Combat Exposure Scale	Light	70 (52.2)	126 (58.3)	0.451
	Light to Moderate	32 (23.9)	45 (20.8)	
	Moderate	15 (11.2)	29 (13.4)	
	Moderate to Heavy	13 (9.7)	12 (5.6)	
	Heavy	4 (3.0)	4 (1.9)	

Chi-square tests were conducted to assess the relationship between use of CAM and negative sexual events experienced by female veterans. This test revealed that the percentage of female veterans that used CAM differed by whether or not someone had used force or threat of force to have sexual contact with the women against their will while they were in the military $\chi^2(1, N=350) = 4.07, p < .05$. If force or threat of force had been used, the female veterans were more likely to use CAM. This test also revealed a trend toward significant differences in CAM use between female veterans that

had received uninvited and unwanted sexual attention while in the military and those that had not $\chi^2(1, N=349) = 3.38, p < .10$. Female veterans that had received uninvited and unwanted sexual attention while in the military tended to be more likely to use CAM than other female veterans (See Table 4).

Table 4: Negative sexual events experienced by female veterans who engage in CAM

Characteristic	Response	Proportion of women who engaged in CAM n[%]	Proportion of women who did not engage in CAM n[%]	P Value
While you were in the military, did you receive uninvited and unwanted sexual attention, such as touching, cornering, pressure for sexual favors, or sexual remarks?	Yes	74 (55.2)	97 (45.1)	0.066[t]
	No	60 (44.8)	118 (54.9)	
While you were in the military, did someone ever use force or threat of force to have sexual contact with you against your will?	Yes	26 (19.4)	25 (11.6)	0.044*
	No	108 (80.6)	191 (88.4)	
Were you ever subjected to uninvited or unwanted sexual attention? (other than contact covered in questions above (e.g. touching, cornering, pressure for sexual favors, verbal remarks).	Never	62 (46.3)	114 (52.8)	0.204
	Once	20 (14.9)	34 (15.7)	
	Twice	11 (8.2)	14 (6.5)	
	3 times	12 (9.0)	8 (3.7)	
	4 times	1 (0.7)	6 (2.8)	
	5 times	0 (0.0)	2 (0.9)	
	More than 5 times	28 (20.9)	38 (17.6)	

Chi-square tests were conducted to assess the relationship between use of CAM and life-threatening events experienced by female veterans. This test revealed that the percentage of female veterans that used CAM differed by whether or not the veteran had been hit, beaten up, or badly hurt by a stranger $\chi^2(3, N=350) = 6.28, p < .10$. Female veterans that had been hit, beaten up, or badly hurt by a stranger tended to be less likely to use CAM than other female veterans (See Table 5).

Table 5: Life-threatening events experienced by female veterans who engage in CAM

Characteristic	Response	Proportion of women who engaged in CAM n[%]	Proportion of women who did not engage in CAM n[%]	P Value
Have you ever had a life threatening illness?	Never	113 (85.6)	194 (89.8)	0.474
	Once	17 (12.9)	19 (8.8)	
	Twice	2 (1.5)	3 (1.4)	
Have you ever been robbed or witnessed an armed robbery?	Never	111 (82.8)	172 (79.6)	0.558
	Once	12 (9.0)	28 (13.0)	
	Twice	9 (6.7)	15 (6.9)	
	4 times	1 (0.7)	0 (0.0)	
	More than 5 times	1 (0.7)	1 (0.5)	
Have you ever been hit, beaten up or badly hurt by a stranger or by someone you didn't know?	Never	118 (88.1)	192 (88.9)	0.099[t]
	Once	15 (11.2)	14 (6.5)	
	Twice	1 (0.7)	8 (3.7)	
	More than 5 times	0 (0.0)	2 (0.9)	
Has anyone ever threatened to kill you or cause you serious physical harm?	Never	79 (59.0)	147 (68.1)	0.101
	Once	25 (18.7)	39 (18.1)	
	Twice	12 (9.0)	10 (4.6)	
	3 times	7 (5.2)	3 (1.4)	
	4 times	0 (0.0)	2 (0.9)	
	More than 5 times	11 (8.2)	15 (6.9)	
Have you lived, worked or had military service in a war zone and been exposed to warfare or combat (e.g. been in the vicinity of a rocket attack, people being fired upon, seeing someone get wounded or killed)?	Never	36 (26.9)	60 (27.6)	0.618
	Once	34 (25.4)	64 (29.5)	
	Twice	13 (9.7)	20 (9.2)	

	3 times	9	(6.7)	20	(9.2)	
	4 times	3	(2.2)	1	(0.5)	
	5 times	1	(0.7)	2	(0.9)	
	More than 5 times	38	(28.4)	50	(23.0)	

Note: ^{t}p<.10 *p<.05 **p<.01 ***p<.001

The percentage of female veterans that used each type of alternative therapy was calculated. Exercise or movement therapy was most commonly used (37.5%), followed second by chiropractic (33.1%). The third most common type of CAM used was massage therapy (32.4%), followed by relaxation or meditation techniques (25.7%) and prayer or other spiritual practice (22.1%). Finally, in decreasing order, this was followed by yoga (20.6%), herbal therapy (15.4%), high dose/mega-vitamins (12.5%), spiritual healing by others (11%), acupuncture (11%), special diets (8.1%), energy healing (5.9%), homeopathy (5.1%), imagery techniques (2.9%), biofeedback (2.2%), hypnosis (1.5%), and energy healing (1.5%) (See Table 6).

Table 6: The proportion of women who are engaged in a specific type of CAM, n=136

Type of CAM	Proportion of women engaged in type of CAM n[%]
None used	23 (16.9)
Acupuncture	15 (11.0)
Biofeedback	3 (2.2)
Chiropractic	45 (33.1)
Energy healing	8 (5.9)
Exercise or movement therapy	51 (37.5)
Herbal therapy	21 (15.4)
High dose/mega-vitamins	17 (12.5)
Homeopathy	7 (5.1)
Hypnosis	2 (1.5)
Imagery techniques	4 (2.9)
Massage therapy	44 (32.4)
Prayer or other spiritual practice	30 (22.1)
Relaxation or meditation techniques	35 (25.7)
Yoga	28 (20.6)
Special diets	11 (8.1)
Spiritual healing by others	15 (11.0)
Energy healing	2 (1.5)

Chi-square tests were conducted to assess the relationship between type of CAM used and the proportion of female veterans that used CAM and had received treatment for PTSD, depression, and/or anxiety upon returning from deployment. This test revealed that the percentage of female veterans that had received treatment for PTSD, depression, and/or anxiety after returning from deployment differed by acupuncture use $\chi^2(1, N = 136) = 7.40, p < .01$. Female veterans who engaged in acupuncture were more likely to have received treatment for PTSD, depression, and/or anxiety after returning from deployment than female veterans that engaged in other types of CAM. This test also revealed a trend toward a significant difference in homeopathy use between female veterans that had received treatment for PTSD, depression, and/or anxiety after returning from deployment, and those that had not $\chi^2(1, N = 136) = 3.27, p < .10$,. Female veterans that engaged in homeopathy tended to be less likely to have received treatment for PTSD, depression, and/or anxiety after returning from deployment (See Table 7).

Table 7: The proportion of women that use CAM and received treatment for at least one major mental health condition (depression, anxiety, or PTSD) upon return from deployment, n=136

Type of CAM	The proportion of women that use CAM and received treatment after returning from deployment for PTSD, depression, and/or anxiety n[%]	The proportion of women that use CAM and did not receive treatment after returning from deployment for PTSD, depression, and/or anxiety n[%]	P Value
Acupuncture	14 (16.9)	1 (1.9)	0.007**
Biofeedback	1 (1.2)	2 (3.8)	0.320
Chiropractic	27 (32.5)	18 (34.0)	0.863
Energy healing	6 (7.2)	2 (3.8)	0.404
Exercise or movement therapy	29 (34.9)	22 (41.5)	0.440
Herbal therapy	15 (18.1)	6 (11.3)	0.288
High dose/mega-vitamins	11 (13.3)	6 (11.3)	0.740
Homeopathy	2 (2.4)	5 (9.4)	0.071[t]
Hypnosis	2 (2.4)	0 (0.0)	0.255
Imagery techniques	3 (3.6)	1 (1.9)	0.561
Massage therapy	27 (32.5)	17 (32.1)	0.956
Prayer or other spiritual practice	18 (21.7)	12 (22.6)	0.896
Relaxation or meditation techniques	19 (22.9)	16 (30.2)	0.342
Yoga	16 (19.3)	12 (22.6)	0.636
Special diets	8 (9.6)	3 (5.7)	0.407
Spiritual healing by others	2 (2.4)	0 (0.0)	0.255
Energy healing	2 (3.8)	6 (7.2)	0.404

Note: [t] p<.10 *p<.05 **p<.01 ***p<.001

Discussion

The purpose of this study was to investigate the use of CAM by female veterans and to examine whether female veterans that exhibit mental health problems are more likely to engage in CAM than female veterans that do not. This is a unique study in that it examines CAM use by female veterans that have recently returned from OEF/OIF. It is important to know the degree to which these women use CAM, since this has implications for the ways in which the VA can continue to attempt to increase female veterans' well-being post-deployment.

It is known that mental health diagnoses are currently high among female OEF/OIF veterans when compared to the general U.S. population (i.e., Dao, 2009; McCarthy et al., 2009). Yet, despite the high rate of diagnoses, this study suggests that only about a third of female veterans are engaging in any type of CAM. This implies that CAM use by female veterans is about equal to that of the general U.S. population (Kronenberg et al., 2006; Upchurch et al., 2007), despite the potential benefits of CAM for individuals with mental health problems (i.e., Garner et al., 2008; Kearney et al., 2012; Strauss, Coeytaux, McDuffie, Nagi, and Williams, 2011). This study implies that the VA could improve veteran's well-being simply by offering more CAM and encouraging female veterans to engage in specific types of CAM.

In addition to knowing the percentage of female veterans that are engaging in CAM, it is important to know the types of CAM that female veterans currently engage in, since this has

implications for the types of CAM that should be more widely offered and discussed by VA health care providers. For example, the relatively high rate of exercise or movement therapy use implies that female veterans are finding it to be beneficial for their well-being (or else they would not continue to engage in it). Therefore, this type of CAM should be recommended by VA health care providers as a popular way of increasing one's well-being. Other types of CAM that are being used at lower rates, like mindfulness and relaxation techniques, but have been proven to be beneficial, should be advertised and offered more by VA health services, since these too may have positive effects on female veterans well-being.

CAM Use and Demographics

As hypothesized, CAM use was correlated with race/ethnicity, which suggests that there are cultural aspects that influence whether or not female veterans engage in CAM. Kronenberg et al. (2006) had previously reported a correlation between CAM use and race/ethnicity, and had found CAM use to be highest amongst Whites and Mexican Americans, while this study found CAM use to be highest only amongst Latino/Hispanic female veterans. Perhaps the differences in findings are due to the fact that White individuals in the military that engage in CAM are from a subculture that is less likely to engage in CAM than the broader U.S. White culture, whereas Latino/Hispanic individuals engage in CAM as a part of their culture both within the military and in the broader U.S. Hispanic/Latino culture. Whether or not this is the case, this study implies that the VA should particularly target Black/African Americans, Asian/Pacific Islanders, and White/Caucasians when advertising the benefits of CAM, since these are the veterans that are less likely to engage in CAM on their own accord.

Also as hypothesized, female veterans are more likely to engage in CAM if they have private health insurance, which suggests that non-private health insurances do not cover (or that it is hard to get them to cover) some of the types of CAM that female veterans would like to engage in. Previous literature implied that individuals are more likely to engage in CAM if they have health insurance than if they do not (Ni et al., 2002), probably because individuals without health insurance are not willing to pay out of pocket to engage in CAM. Therefore, this study's finding is logical, since private health insurances tend to cover more services than non-private health insurances, which in turn means that individuals with private health insurance are more likely to have access to CAM without paying out of pocket. In other words, when female veterans are able to engage in CAM without any extra cost, they do so. However, when CAM is not covered by their insurance, they forego engaging in it.

CAM use was also associated with whether or not female veterans had received needed mental health services in the past six months. Female veterans that felt they had not received needed mental health services in the past six months reported higher CAM use. This implies that, as Micek et al. (2006) found, lower satisfaction with VA primary care led to increased CAM use. In other words, female veterans that felt they were not receiving needed mental health care may have turned to CAM as a way to decrease their mental health problems. However, this also implies that CAM was unable to provide the mental health care that the female veterans considered necessary, since despite increased CAM use, female veterans still felt that the VA was not providing them with needed services.

In addition, CAM use was correlated with whether or not female veterans had a service disability rating. Female veterans that had a service disability rating were more likely to engage in CAM than those that did not. This implies that female veterans who have a disability are

turning to unconventional types of health care services in an attempt to alleviate or eliminate their disability symptoms, since conventional health care has been unable to do so. This was not reported in the literature, but it is also not surprising. One is more likely to engage in CAM if there is a physical or emotional problem that one is trying to alleviate, so it is logical that female veterans with a disability rating would be more likely to engage in CAM than those without one.

Surprisingly, in contrast to the literature, CAM use was not associated with age or level of education. Perhaps this is because all individuals using the VA's services had engaged in the military and had similar views on CAM, and thus, age and level of education had little consequence on them. In addition, while level of education in the U.S. population is usually a predictor of wealth, which in turn might predict access to CAM (financially), education level for a veteran would not affect their level of wealth nearly as much as their rank in the military would, which might explain why level of education was not associated with CAM use.

CAM Use and Clinical and Mental Health Characteristics

As hypothesized, for female veterans, military sexual trauma and receiving treatment for drug and/or alcohol abuse post-deployment was associated with CAM use. However, cigarette use, combat exposure, and receiving treatment for PTSD and/or anxiety/depression/other emotional disorders post-deployment were not associated with CAM use. This is surprising, since the VA claimed that CAM was often used to decrease stress, as well as to reduce symptoms of anxiety, PTSD, depression, and substance abuse in the military, yet there is no difference in CAM use for female veterans that have these characteristics (except for drug abuse and alcoholism) and those that do not. Also, numerous types of CAM have been found to decrease various mental health problems, so it is unfortunate that the VA is not strongly encouraging

individuals that have these problems to engage in the specific types of CAM that have been found to be effective in alleviating the problems. In fact, female veterans that received treatment for drug and/or alcohol abuse issues post-deployment are actually *less* likely than other female veterans to engage in CAM. This may be because individuals that use CAM tend to be more health conscious, and thus less likely to use illicit drugs and abuse alcohol. It might also be due to the fact that by using CAM, female veteran's drug and alcohol abuse problems cease, and thus there is no apparent correlation between the two. Finally, it could be because veterans that are not interested in trying alternative types of therapy instead turn to drugs and alcohol (which may be less stigmatized) to cope with their issues.

It is unclear why mental health diagnoses, such as PTSD, depression/anxiety, etc., are not associated with CAM use, yet experiencing unwanted sexual attention and contact is. Perhaps women do not feel able to talk about the inappropriate sexual attention and contact that they experienced in the military, and thus attempt to cope with them through the use of CAM. It is also possible that the types of women that tend to be the target of inappropriate sexual attention and contact in the military are the types of women that would generally be more open to using CAM (or might even prefer using it over conventional mental health care).

It is interesting that the more times that female veterans have been hit, beaten up, or badly hurt by a stranger, the less they tended to use CAM. This implies that a fear of strangers affects female veterans' use of CAM, perhaps because engaging in CAM often involves more contact with strangers than traditional mental health services do. Also, female veterans that have been harmed by a stranger tend to be less likely to want to stand out and take risks, such as by engaging in CAM. Therefore, if a female veteran has been harmed by a stranger, she may show more resistance to engaging in CAM than other women, but it is important for her to receive the

support and guidance that she needs to try an alternative type of therapy if it might potentially benefit her.

CAM Types Utilized

As hypothesized, female veterans most often utilize exercise or movement therapy. Since exercise is commended by the military, it is not surprising that this form of CAM is one of the most popular among female veterans. In addition, prayer and spiritual practice were popular among female veterans, probably due to the fact that they are fairly easy to engage in on one's own and are highly accepted by the military. There was also a relatively high rate of female veterans engaging in chiropractics, most likely because this is now viewed in the military as a mainstream medical technique, rather than a type of CAM.

Surprisingly, spiritual healing by others was not a particularly popular type of CAM. Perhaps this is because it requires another person's presence, and most individuals would rather just pray or practice spiritually by themselves. Instead, massage therapy was popular in comparison to other types of CAM, potentially because the benefits of massage have been well established and it is considered both widely accepted and enjoyable by society. Also, relaxation and meditation technique were found to be popular in this study, perhaps since the benefits of these have become more forefront in the media in the past couple of years (i.e. Carey, 2008; Tighe, 2011; Weintraub, 2012), and they are fairly easy to practice on one's own.

Despite the fact that at least a couple of female veterans engaged in even the least popular types of CAM, the numbers of female veterans engaging in CAM are quite low overall. Out of 357 female veterans, only 51 female veterans engaged in the most popular type of CAM, which was exercise or movement therapy, and the numbers steadily decrease from there. In fact, only

three female veterans engaged in biofeedback, yet the literature reports that it benefits individuals in a variety of ways, such as by decreasing anxiety, (i.e., Henriques, Keffer, Abrahamson, and Horst, 2011; Pallavicini et al., 2009) depression (i.e., Karavidas et al., 2007; Zucker et al., 2009), and PTSD (i.e., Tan, Dao, Farmer, Sutherland, and Gevirtz, 2011; Zucker et al., 2009). In other words, it would be beneficial for the VA to examine the literature that has been published on a variety of types of CAM, and then begin to offer, and perhaps even "prescribe," specific types of CAM based on the mental health problems that a female veteran is experiencing. As it stands, many potentially beneficial therapies are hardly being used by female veterans (i.e. imagery techniques, acupuncture, spiritual healing by others, etc.), and even the most popular types of CAM among female veterans are still being utilized at low rates.

CAM and Mental Illness

Female veterans that received treatment for PTSD, depression, and/or anxiety after returning from deployment are significantly more likely to engage in acupuncture than those that have not received such a diagnosis. It is unclear from this whether these individuals engage in acupuncture since they have a sense that this type of CAM relieves their symptoms, whether by engaging in this type of alternative therapy they are exacerbating their mental health symptoms, or whether there is an extraneous variable that causes such individuals to both receive treatment for PTSD, depression, or anxiety after returning from deployment and to want to engage in acupuncture.

Similarly, individuals that receive treatment for PTSD, depression, and/or anxiety after returning from deployment tend to be less likely to utilize homeopathy than individuals that do not receive treatment. Again, it is unclear whether individuals that receive treatment for PTSD,

depression, and/or anxiety after returning from employment do not engage in homeopathy since they believe that homeopathy is either useless in treating their symptoms (or might even exacerbate them), whether there is an extraneous variable that causes such individuals to receive treatment for PTSD, depression, and/or anxiety after returning from deployment and to also not want to engage in homeopathy, or whether there is a stigma around using homeopathy in the military.

These results were not in accordance with the hypothesis that female veterans that received treatment for PTSD, depression, and/or anxiety after returning from deployment would be more likely to engage in prayer or other spiritual practice and spiritual healing by others than female veterans had not received such treatment. Perhaps female veterans that receive treatment for PTSD, depression, and/or anxiety, in contrast to those that do not receive such treatment, have lost faith in religious means of healing themselves, so they turn to more biologically based types of alternative therapies.

Fortunately, female veterans that receive treatment for PTSD, depression, and/or anxiety after returning from deployment are not using CAM significantly less than female veterans without such a diagnosis. However, it is unfortunate that these individuals are not using CAM *more* than the other female veterans, since many types of CAM have specifically been shown to alleviate symptoms of PTSD, depression, and/or anxiety, such as mindfulness and relaxation techniques (Kearney et al., 2012; Strauss, Coeytaux, McDuffie, Nagi, and Williams, 2011; Vujanovic, Niles, Pietrefesa, Schmertz, and Potter, 2011), yoga (Smith, Greer, Sheets, and Watson, 2011; Woolery, Myers, Stemliebm, and Zelter, 2004), and imagery techniques (Aylwin, 1988; Carlson et al., 1998; Der & Lewington, 1990; Hammer, 1996; Kuch, Swinson, & Kirby, 1985). It would be beneficial for VA mental health services to begin referring female veterans

with mental health problems to these types of CAM, since many female veterans will likely experience a decrease in mental health problems and an overall increased sense of well being.

Study Limitations

This study has several limitations. Similar to other studies in the related literature, this study relied on female veterans' self-reports of information, such as whether or not they had been diagnosed with depression, anxiety, or post-traumatic stress disorder, or whether they had abused either drugs or alcohol. Individuals might not honestly report their answers due to shame, out of fear that the VA might obtain their information and reprimand them for their responses, or out of ignorance.

This study only took into account individuals that had received *medical treatment* for a mental illness, drug abuse, or alcohol abuse. It did not include those that had symptoms of a mental illness, drug abuse, or alcohol abuse, but had not received medical treatment for it. Therefore, there may have been individuals with a mental illness, drug abuse, or alcohol abuse that were not included in these categories, since they had not been provided with medical treatment for them. In addition, the study only took into account individuals that had received medical treatment for a mental illness, drug abuse, or alcohol abuse after *returning from deployment.* This did not include female veterans that had received medical treatment for a mental illness, drug abuse, or alcohol abuse prior to returning from deployment (potentially after a previous deployment, while in combat, or before even joining the military). This might have skewed the data and made certain mental health related correlations non-existent. In addition, only certain mental illnesses were examined in this study. By separating out each individual

DSM diagnosis that a veteran had been diagnosed with, more correlations between types of CAM used and mental health diagnoses might have become apparent.

Another limitation is that veterans were only asked to record three types of CAM that they had engaged in. It is possible that some veterans used more than three types, and thus, the recorded number of female veterans that used each type of CAM might be slightly low. Also, individuals that chose to fill out the survey may have had different characteristics than those that chose to not fill it out (i.e., fewer mental health problems, not employed, younger, etc.). This in turn might have skewed the data.

In addition, the interpretation of what exercise and movement therapy is must vary between participants. The WVCS provided no definition of this type of CAM in the survey, and it is likely that some participants assumed that it was regular exercise done on their own, while other participants thought it was exercise done in a therapeutic group. Yet others probably assumed that it was exercise that had been prescribed specifically by a trainer or physician. In the future, it would be important to further clarify what exercise and movement therapy is, so as to determine whether it is *actually* the most popular type of CAM amongst female veterans, as well as to further examine the types of individuals that are engaging in it as a form of CAM.

Another important limitation was that veterans in this study came from either Indiana or Connecticut, and they may have had certain characteristics based on their geographic location. In addition, they also used either the Indiana VA or Connecticut VA for services, and answers to the survey were based on their experiences at either of these two locations (answers to the survey might be very different at other VAs throughout the country). Also, since types of CAM offered differs by VA, the sample was skewed in that the responses to the survey were based only on two

VA locations, even though VA services can vary so much. In other words, a more diverse sample would certainly have been beneficial.

Finally, despite an overall fairly large sample size, by the time that non-CAM users were factored out, the sample size was fairly small. Thus, in the future, it would be beneficial to not only have a more diverse sample, but also a much larger one.

Suggestions for Future Research

Despite the recent focus on determining the best types of mental health care to provide veterans with, there is still a lot that is unknown about this. This study provides some basic data regarding demographic and mental health characteristics of women that are using CAM, and it suggests types of CAM that are rarely being used by female veterans that might be beneficial for the VA to begin recommending. However, this study does not provide any information about *why* female veterans are engaging in certain types of CAM, and whether they were engaging in these types of CAM before they saw combat, or whether they began engaging in them only after combat. This would be important for future research to examine, since it is unclear right now whether female veterans are turning to alternative types of therapy in an attempt to cope with combat-related mental health issues, or whether they are using it for other reasons (personal enjoyment, physical issues, cultural reasons, less stigma than talk therapy, availability, etc.).

Future research should also study the timing of when female veterans engage in CAM. In other words, it should examine when female veterans begin to engage in CAM, and it should look at whether their use of CAM is concurrent with other therapies (i.e., traditional mental and physical health therapies) or whether is it only used when all other means of healing have been

exhausted. In addition, it would be interesting to know the degree to which CAM is currently recommended by mental health clinicians at the VA, and for what conditions it is recommended.

It would also be beneficial to do a study to determine if alternative therapies actually help decrease mental health symptoms amongst female veterans, or if they have little effect on them. Similarly, it would be interesting to know more about which alternative therapies are most beneficial for which mental health problems amongst female veterans. By having a better understanding of this, VA mental health workers would have a better sense of which types of CAM to recommend to different female veterans.

It would also be potentially helpful to do this study with male veterans, since currently, this study only applies to female veterans. However, there is still relatively little known about CAM use amongst male veterans. Also, by examining the differences in CAM use between males and females, we might learn more about the types of individuals that decide to join the military, the different ways that males and females like to cope with the after-effects of combat, and whether there are different stigmas for males and females in terms of using various types of CAM.

Finally, future studies could attempt to get a larger sample size and incorporate the population of more VAs into the study. Right now, all considering, the sample size is fairly small and homogenous, since the population of only two VAs is included. One could learn much more about female veterans and their CAM use by creating a study that is distributed to female veterans at every VA throughout the United States.

Implications for Policy/Practice

Since female veterans are currently returning from deployment with an alarming rate of mental illness (i.e., Hunt and Rosenheck, 2011), it is clear that the VA must begin to improve and expand its mental health services. This study implies that relatively low rates of female veterans are currently engaging in CAM, despite the potential benefits of CAM. Thus, the VA should begin to offer more CAM services, and begin to refer female veterans to certain types of CAM that would likely benefit them. This is one clear way that the VA can begin to address its high rate of mental health problem.

In addition, this study suggests that if CAM services were covered more under health insurance policies, than female veterans would begin to engage in more of them. Since a variety of types of CAM are both inexpensive and effective (such as mindfulness and relaxation techniques), public health insurances should consider covering these services in order to encourage veterans to engage in them. If female veterans begin to engage in more CAM, traditional mental health related appointments (and potentially mental health related hospitalizations) are likely to decrease. Thus, insurance companies may end up paying less for female veterans with mental health problems than they have previously been paying.

This study also suggests the types of female veterans that are more and less likely to engage in CAM. It implies that their usage of CAM is influenced by a variety of demographic and clinical characteristics, including cultural factors, cost, stigma, fear of "risk-taking," and lack of health consciousness. VA doctors and mental health clinicians can learn from these results and provide extra encouragement to use specific types of CAM, as well as additional psychoeducation, to those who are less likely to engage in it.

Conclusion

While the findings of this study are generally in accordance with previous literature, this study enhances the literature by providing more specificity regarding the relationship between female veterans and CAM use. Although many studies had previously noted the relationship between veterans and CAM, no studies were found that examined the relationship between *female* veterans and CAM. Thus, this study goes well beyond the previous research by looking specifically at women that have been in the military and examining the associations between their demographic and clinical characteristics and their CAM use.

To reiterate, this study helps explain why so many female veterans might not be taking advantage of alternative types of therapy. It also suggests the types of CAM therapies that female veterans prefer to engage in, and demographic and clinical characteristics that are associated with CAM use. Knowing this might have ramifications for VA mental health services, health insurance coverage, and for female veterans themselves. The hope is that as the government becomes more aware of both the overwhelming mental health problems among veterans and the potential of numerous specific types of CAM to help decrease these mental health problems, several things will happen: The VA will begin to offer and refer female veterans at a higher rate to specific types of CAM, public health insurance will start to cover more types of CAM, and female veterans will take charge of their own well-being and search out alternative types of therapies that have worked well for others and may work for themselves. This in turn will help to decrease any remaining stigmas around engaging in non-traditional types of medicine, and it will likely decrease the rate of female veterans' mental health problems and increase their overall sense of well-being.

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Appendix A


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Appendix B


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Appendix C


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Appendix D

Health Information

How much do you currently weigh in pounds?: _____		
Approximately how much did you weigh, in pounds, upon return from your most recent deployment?: _____		
How tall are you without shoes on? Feet:: _____	Inches:: _____	 (Height in inches): _____
How often do you engage in <u>vigorous</u> physical activity (for example, running, cycling, lifting heavy objects) long enough to work up a sweat?	*[ ] Several times a week or more [ ] About once a week [ ] Several times a month [ ] About once a month [ ] Less than once a month [ ] Never*	
How often do you engage in <u>moderate</u> physical activity (for example, bowling, golfing, or using a vacuum cleaner)?	*[ ] Several times a week or more [ ] About once a week [ ] Several times a month [ ] About once a month [ ] Less than once a month [ ] Never*	

Deployment

What was your most recent service branch in the military?	*[ ] Air Force [ ] Army [ ] Coast Guard [ ] Marine Corps [ ] Navy [ ] Civilian Employee [ ] Other*
What was your most recent component in the military?	*[ ] Active duty [ ] National Guard [ ] Reserves [ ] Civilian government employee*
Have you ever been deployed?	*[ ] Yes [ ] No*

To what areas were you mainly deployed?

Afghanistan	*[ ] Yes [ ] No*
Iraq	*[ ] Yes [ ] No*
Bosnia	*[ ] Yes [ ] No*
CONUS	*[ ] Yes [ ] No*
Kosovo	*[ ] Yes [ ] No*
Kuwait	*[ ] Yes [ ] No*
On a ship	*[ ] Yes [ ] No*
Qatar	*[ ] Yes [ ] No*
Turkey	*[ ] Yes [ ] No*
Uzbekistan	*[ ] Yes [ ] No*
Other	*[ ] Yes [ ] No*
Status prior to most recent deployment:	*[ ] Active duty [ ] Selected Reserves-Reserve - Unit [ ] Selected Reserves-Reserve - AGR [ ] Selected Reserves-Reserve - IMA [ ] Selected Reserves-National Guard - Unit [ ] Selected Reserves-National Guard - AGR [ ] Ready Reserves-IRR [ ] Ready Reserves-ING [ ] Civilian Government Employee [ ] Other*
How many times have you been deployed for	*[ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 or more*

OIF?	
How many times have you been deployed for OEF?	*[ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 or more*
How many times have you been deployed for non-OIF/OEF deployments?	*[ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 or more*
Since return from my most recent deployment I have:	*[ ] Maintained/returned to previous status [ ] Transitioned to Selected Reserves [ ] Transitioned to IRR [ ] Transitioned to ING [ ] Retired from Military Service [ ] Separated from Military Service*

Conditions

Health Status Following Deployment

Since return from your most recent deployment . . .

Have you received medical treatment?	*[ ] Yes [ ] No*

Since return from your most recent deployment have you received medical treatment for . . .

High blood pressure	*[ ] Yes [ ] No*	Lung trouble	*[ ] Yes [ ] No*
A hearing condition that requires a hearing aid	*[ ] Yes [ ] No*	Any other ear, nose or throat conditions	*[ ] Yes [ ] No*
An eye or vision problem, including needing glasses	*[ ] Yes [ ] No*	Cancer	*[ ] Yes [ ] No*
Heart trouble	*[ ] Yes [ ] No*	Stroke	*[ ] Yes [ ] No*
Kidney or bladder trouble	*[ ] Yes [ ] No*	Arthritis or rheumatism	*[ ] Yes [ ] No*
Hepatitis C or liver disease	*[ ] Yes [ ] No*	HIV / AIDS	*[ ] Yes [ ] No*
Diabetes	*[ ] Yes [ ] No*	Stomach or digestive disorder	*[ ] Yes [ ] No*
Severe chronic pain	*[ ] Yes [ ] No*	Drug abuse or alcoholism	*[ ] Yes [ ] No*
Post Traumatic Stress Disorder (PTSD)	*[ ] Yes [ ] No*	Anxiety, depression, or some other emotional disorder	*[ ] Yes [ ] No*
Migraine headaches	*[ ] Yes [ ] No*	Chronic sleep problems	*[ ] Yes [ ] No*
An accident-related injury	*[ ] Yes [ ] No*	Persistent trouble with your teeth, gums, or mouth	*[ ] Yes [ ] No*
Sexually Transmitted Disease (STD)	*[ ] Yes [ ] No*	Male genito-urinary conditions (e.g. problems with your prostate)	*[ ] Yes [ ] No*
Menstrual disorders (e.g. irregular periods, painful periods)	*[ ] Yes [ ] No*	Pelvic inflammatory disease	*[ ] Yes [ ] No*

Non-cancerous breast problems	*[ ] Yes [ ] No*	Female pelvic disorders or cancers	*[ ] Yes [ ] No*

Problems Related to Deployment

During your deployment, were you wounded, injured, assaulted, or otherwise physically hurt?	*[ ] Yes [ ] No*
Are you having any health problems or concerns related to your deployment?	*[ ] Yes [ ] No*

Have you had any of the following problems related to your deployment?

Fever	*[ ] Yes [ ] No*	Cough lasting more than 3 weeks	*[ ] Yes [ ] No*
Trouble breathing	*[ ] Yes [ ] No*	Bad headaches	*[ ] Yes [ ] No*
Generally feeling weak	*[ ] Yes [ ] No*	Muscle aches	*[ ] Yes [ ] No*
Swollen, stiff or painful joints	*[ ] Yes [ ] No*	Back pain	*[ ] Yes [ ] No*
Numbness or tingling in hands or feet	*[ ] Yes [ ] No*	Trouble hearing	*[ ] Yes [ ] No*
Ringing in the ears	*[ ] Yes [ ] No*	Watery, red eyes	*[ ] Yes [ ] No*
Dimming of vision, like the lights were going out	*[ ] Yes [ ] No*	Chest pain or pressure	*[ ] Yes [ ] No*
Dizzy, light headed, passed out	*[ ] Yes [ ] No*	Diarrhea, vomiting, or frequent indigestion/heartburn	*[ ] Yes [ ] No*
Problems sleeping or still feeling tired after sleeping	*[ ] Yes [ ] No*	Trouble concentrating, easily distracted	*[ ] Yes [ ] No*
Forgetful or trouble remembering things	*[ ] Yes [ ] No*	Hard to make up your mind or make decisions	*[ ] Yes [ ] No*
Increased irritability	*[ ] Yes [ ] No*	Taking more risks such as driving faster	*[ ] Yes [ ] No*
Skin diseases or rashes	*[ ] Yes [ ] No*	Other (please list):: _____	

Compared to before your most recent deployment, how would you rate your:

<u>Physical health</u> in general now?	*[ ] Much better now than before I deployed [ ] Somewhat better now than before I deployed [ ] About the same as before I deployed [ ] Somewhat worse than before I deployed [ ] Much worse than before I deployed*
<u>Mental health</u> in general now?	*[ ] Much better now than before I deployed [ ] Somewhat better now than before I deployed [ ] About the same as before I deployed [ ] Somewhat worse than before I deployed [ ] Much worse than before I deployed*

Since return from your most recent deployment

Have you had serious conflicts with your spouse, family members, close friends, or at work that continue to cause you worry or concern?	*[ ] Yes [ ] No*

Since return from your most recent deployment, have you had any of the following troubles?

Trouble with money/spending too much money	*[ ] Yes [ ] No*	Trouble getting or keeping a paid job	*[ ] Yes [ ] No*
Trouble sleeping	*[ ] Yes [ ] No*	Trouble with the law	*[ ] Yes [ ] No*
Trouble taking care of your children	*[ ] Yes [ ] No*	Trouble re-integrating into society	*[ ] Yes [ ] No*

Health Care Utilization

Since you returned from your most recent deployment . . .

About how many times have you seen a healthcare provider for any reason, such as in primary care, family doctor, emergency room, or mental health provider?	*[ ] No visits [ ] 1 visit [ ] 2-3 visits [ ] 4-5 visits [ ] 6 or more visits*
Have you been seen by:	*[ ] VA providers only [ ] Non-VA providers only [ ] Both VA and non-VA providers*
Do you plan to use the VA Healthcare system in the future?	*[ ] Yes, as a primary source of care [ ] Yes, only as a backup to non-VA care [ ] Yes, for prescriptions only [ ] No*

The following questions are about VA healthcare and benefits. Please indicate whether you agree or disagree with each statement.

The VA is conveniently located for me.	*[ ] Strongly agree [ ] Agree [ ] Neither agree nor disagree [ ] Disagree [ ] Strongly disagree*
I have an established relationship with a provider in the community and do not need to use the VA for care.	*[ ] Strongly agree [ ] Agree [ ] Neither agree nor disagree [ ] Disagree [ ] Strongly disagree*
I have good private health insurance and do not need to use the VA for care.	*[ ] Strongly agree [ ] Agree [ ] Neither agree nor disagree [ ] Disagree [ ] Strongly disagree*
I know I am eligible for VA care.	*[ ] Strongly agree [ ] Agree [ ] Neither agree nor disagree [ ] Disagree [ ] Strongly disagree*
I know I have VA benefits.	*[ ] Strongly agree [ ] Agree [ ] Neither agree nor disagree [ ] Disagree [ ] Strongly disagree*
VA physicians are skilled in treating women.	*[ ] Strongly agree [ ] Agree [ ] Neither agree nor disagree [ ] Disagree [ ] Strongly disagree*
I feel I would be welcome at the VA.	*[ ] Strongly agree [ ] Agree [ ] Neither agree nor disagree [ ] Disagree [ ] Strongly disagree*

I think the VA has good, quality healthcare.	*[ ] Strongly agree [ ] Agree [ ] Neither agree nor disagree [ ] Disagree [ ] Strongly disagree*
I think the VA has the health or mental services that I need.	*[ ] Strongly agree [ ] Agree [ ] Neither agree nor disagree [ ] Disagree [ ] Strongly disagree*

In the last 12 months how many times have you used:

VA health care for overnight stays in a hospital or nursing home?: _____
VA health care for outpatient care (clinic or emergency room)?: _____
Health care outside the VA for overnight stays in a hospital or nursing home?: _____
Health care outside the VA for outpatient care (clinic or emergency room)?: _____

Please indicate how many times you saw each of the following professionals in the past 12 months about a problem with your emotional or mental health or about personal problems (INCLUDE BOTH VA AND NON-VA VISITS):

A psychiatrist: _____
A general practitioner or other medical doctor: _____
A psychologist, professional counselor, marriage therapist, or social worker: _____
A minister, priest, rabbi, or other spiritual advisor: _____

Medications

Have you taken any prescription medication in the past 12 months?	*[ ] Yes [ ] No*
During the past 12 months, have you taken prescription medicine for high blood pressure or hypertension?	*[ ] Yes [ ] No*
Diuretics such as Hydrochlorothiazide (Microzide), Furosemide	*[ ] Yes [ ] No*
Beta Blockers such as Atenolol (Tenormin), Metoprolol (Toprol XL, Lopressor), Propanolol (Inderal)	*[ ] Yes [ ] No*
Alpha Blockers such as Doxazosin (Cardura), Terazosin (Hytrin)	*[ ] Yes [ ] No*
Ace Inhibitors such as Lisinopril (Zestril, Prinivil) Enalapril (Vasotec), Captopril (Capoten)	*[ ] Yes [ ] No*
Angiotensin Receptor Blockers such as Losartan (Cozaar), Irbesartan (Avapro), Valsartan (Diovan)	*[ ] Yes [ ] No*
Calcium Channel Blockers such as Diltiazem (Cardizem), Nifedipine (Procardia, Adalat), Verapamil (Verelan, Calan), Felodipine (Plendil), Amlodipine (Norvasc)	*[ ] Yes [ ] No*
Hydralazine (Apresoline)	*[ ] Yes [ ] No*
Clonidine (Catapres)	*[ ] Yes [ ] No*
Other high blood pressure or hypertension medicine:: _____	

During the past 12 months, have you taken prescription medicine for diabetes?	*[ ] Yes [ ] No*
A sulfonylurea such as Glyburide (Diabeta, Micronase), Glipizide (Glucotrol), or Glimepiride (Amaryl)	*[ ] Yes [ ] No*
Metformin (Glucophage)	*[ ] Yes [ ] No*
Pioglitazone (Actos) or Rosiglitazone (Avandia)	*[ ] Yes [ ] No*
Acarbose (Precose)	*[ ] Yes [ ] No*
Sitagliptin (Januvia)	*[ ] Yes [ ] No*
Exenatide (Byetta)	*[ ] Yes [ ] No*
Pramlintide (Symlin)	*[ ] Yes [ ] No*
Insulin	*[ ] Yes [ ] No*
Other diabetes medicine:: _____	
During the past 12 months, have you taken prescription medicine for any heart conditions?	*[ ] Yes [ ] No*
Blood thinners such as Aspirin (Bayer, Ecotrin) Coumadin (Warfarin) Clopidogrel (Plavix)	*[ ] Yes [ ] No*
Beta Blockers such as Atenolol (Tenormin), Metoprolol (Toprol XL, Lopressor), Carvedilol (Coreg), Sotalol (Betapace)	*[ ] Yes [ ] No*
Ace inhibitors such as Lisinopril (Zestril, Prinivil), Enalapril (Vasotec), Captopril (Capoten)	*[ ] Yes [ ] No*
Nitroglycerin such as Nitroglycerin (NitroQuick, Nitrostat), Isosorbide dinitrate (Isordil), Isosorbide mononitrate (Imdur)	*[ ] Yes [ ] No*
Amiodarone (Cordarone)	*[ ] Yes [ ] No*
Other medicine for heart disease:: _____	
During the past 12 months, have you taken prescription medicine for high cholesterol?	*[ ] Yes [ ] No*
Statin such as Lovastatin (Mevacor), Simvastatin (Zocor), Atorvastatin (Lipitor), Pravastatin (Pravachol), Rosuvastatin (Crestor), Fluvastatin (Lescol)	*[ ] Yes [ ] No*
Ezetimibe (Zetia)	*[ ] Yes [ ] No*
Niacin (Niaspan, Niacor)	*[ ] Yes [ ] No*
Gemfibrizol (Lopid)	*[ ] Yes [ ] No*
Colestipol (Colestid)	*[ ] Yes [ ] No*
Other high cholesterol medicine:: _____	
Omega-3 Fatty Acids (Lovaza)	*[ ] Yes [ ] No*

During the past 12 months, have you taken prescription medicine for arthritis?	*[ ] Yes [ ] No*
Acetaminophen (Tylenol)	*[ ] Yes [ ] No*
Anti-inflammatories such as Ibuprofen (Advil, Motrin), Naprosyn (Aleve, Anaprox, Pamprin, Naproxen), Etodolac (Lodine), Meloxicam (Mobic), Indomethacin (Indocin)	*[ ] Yes [ ] No*
Methotrexate (Rheumatrex)	*[ ] Yes [ ] No*
Plaquenil (Hydroxychloroquine)	*[ ] Yes [ ] No*
Other medicine for arthritis:: _____	
During the past 12 months, have you taken prescription medicine for birth control?	*[ ] Yes [ ] No*
Please list brand:: _____	
During the past 12 months, have you taken prescription medicine for hormone replacement?	*[ ] Yes [ ] No*
Conjugated Equine Estrogen (Premarin)	*[ ] Yes [ ] No*
Conjugated Equine Estrogen/Medroxyprogesterone (Premphase, Prempro)	*[ ] Yes [ ] No*
Estradiol (Elestrin, Femring, Vagifem, Vivelle-Dot, Vivelle)	*[ ] Yes [ ] No*
Vaginal estrogen ring (Estring)	*[ ] Yes [ ] No*
Estrogen/testosterone (EstraTest)	*[ ] Yes [ ] No*
Other hormone replacement medicine:: _____	
During the past 12 months, have you taken prescription medicine for headaches?	*[ ] Yes [ ] No*
Propanolol (Inderal)	*[ ] Yes [ ] No*
Nortriptyline (Pamelor), /amitriptyline (Elavil)	*[ ] Yes [ ] No*
Verapamil (Verelan, Calan)	*[ ] Yes [ ] No*
Triptan such as Sumatriptan (Imitrex), Rizatriptan (Maxalt), Zolmitriptan (Zomig), Naratriptan (Amerge)	*[ ] Yes [ ] No*
Topiramate (Topamax)	*[ ] Yes [ ] No*
Other medicine for headaches:: _____	
During the past 12 months, have you taken prescription medicine for nerves, anxiety, or depression?	*[ ] Yes [ ] No*
Benzodiazepines such as Diazepam (Valium), Lorazepam (Ativan), Clonazepam (Klonopin), Alprazolam (Xanax)	*[ ] Yes [ ] No*
SSRI Antidepressants such as Sertraline (Zoloft), Fluoxetine (Prozac), Paroxetine (Paxil), Citalopram (Celexa), Escitalopram (Lexapro)	*[ ] Yes [ ] No*

Mirtazepine (Remeron)	*[ ] Yes [ ] No*
Trazodone (Desyrel)	*[ ] Yes [ ] No*
Bupropion (Wellbutrin, SR, XL)	*[ ] Yes [ ] No*
Venlafaxine (Effexor)	*[ ] Yes [ ] No*
Duloxetine (Cymbalta)	*[ ] Yes [ ] No*
Other medicine for nerves / anxiety / depression:: _____	

*Reminder! Save your responses. Click the **Save** button in the blue area at the bottom of this page.*

Health Care Utilization continued

When your healthcare provider prescribed medications, did he/she tell you if these medications had any chance of causing a birth defect?	*[ ] Yes [ ] No [ ] My doctor has not prescribed any medications for me.*
How confident are you that your healthcare provider would tell you if a medication you are taking might cause a birth defect?	*[ ] Very confident [ ] Moderately confident [ ] Neither confident or unconfident [ ] Moderately unconfident [ ] Very unconfident*
Have you used any complementary, alternative, or nontraditional therapies in the past 12 months to treat a physical health problem, to treat an emotional or personal problem, to maintain or enhance wellness, or to prevent disease?	*[ ] Yes [ ] No*
Therapy #1 (the one you have used most often):	*[ ] Not applicable [ ] Acupuncture [ ] Biofeedback [ ] Chiropractic [ ] Energy healing [ ] Exercise or movement therapy [ ] Herbal therapy [ ] High dose/ mega-vitamins [ ] Homeopathy [ ] Hypnosis [ ] Imagery techniques [ ] Massage therapy [ ] Prayer or other spiritual practice [ ] Relaxation or meditation techniques [ ] Yoga [ ] Special diets [ ] Spiritual healing by others*
Therapy #2 (the one you have used second most often):	*[ ] Not applicable [ ] Acupuncture [ ] Biofeedback [ ] Chiropractic [ ] Energy healing [ ] Exercise or movement therapy [ ] Herbal therapy [ ] High dose/ mega-vitamins [ ] Homeopathy [ ] Hypnosis [ ] Imagery techniques [ ] Massage therapy [ ] Prayer or other spiritual practice [ ] Relaxation or meditation techniques [ ] Yoga [ ] Special diets [ ] Spiritual healing by others*
Therapy #3 (the one you have used third most often):	*[ ] Not applicable [ ] Acupuncture [ ] Biofeedback [ ] Chiropractic [ ] Energy healing [ ] Exercise or movement therapy [ ] Herbal therapy [ ] High dose/*

	mega-vitamins [ ] Homeopathy [ ] Hypnosis [ ] Imagery techniques [ ] Massage therapy [ ] Prayer or other spiritual practice [ ] Relaxation or meditation techniques [ ] Yoga [ ] Special diets [ ] Spiritual healing by others

Health Insurance and Quality of Medical Care

Do you currently have any private health insurance?	*[ ] Yes [ ] No*
What type of private health insurance do you have?	*[ ] Private insurance directly from the insurer [ ] Private insurance through your own current or former employer [ ] Private insurance through your spouse or partner's current or former employer [ ] Don't know*
Do you currently have any form of government-provided health insurance?	*[ ] Yes [ ] No*
What type of government health insurance do you have?	*[ ] Medicare [ ] Medicaid, or other government health insurance based on financial need [ ] CHAMPUS, TRI-CARE, or other insurance for military personnel or veterans [ ] Don't know*
During this past year, was there any time that you were without any health insurance?	*[ ] Yes [ ] No*

The next set of questions are about your ability to get the medical care you need. Please indicate how strongly you agree or disagree with the statements.

If I need hospital care, I can get admitted without any trouble.	*[ ] Strongly agree [ ] Somewhat agree [ ] Uncertain [ ] Somewhat disagree [ ] Strongly disagree*
It is hard for me to get medical care in an emergency	*[ ] Strongly agree [ ] Somewhat agree [ ] Uncertain [ ] Somewhat disagree [ ] Strongly disagree*
Sometimes I go without the medical care I need because it is too expensive	*[ ] Strongly agree [ ] Somewhat agree [ ] Uncertain [ ] Somewhat disagree [ ] Strongly disagree*
I have easy access to the medical specialists I need	*[ ] Strongly agree [ ] Somewhat agree [ ] Uncertain [ ] Somewhat disagree [ ] Strongly disagree*
Places where I can get medical care are very conveniently located	*[ ] Strongly agree [ ] Somewhat agree [ ] Uncertain [ ] Somewhat disagree [ ] Strongly disagree*
I am able to get medical care whenever I need it	*[ ] Strongly agree [ ] Somewhat agree [ ] Uncertain [ ] Somewhat disagree [ ] Strongly disagree*
During the last 6 months, did you ever need <u>medical care</u> but could not get it?	*[ ] Yes [ ] No*
The last time you needed but did not get <u>medical care</u>, what was the main reason?	*[ ] I couldn't afford the care [ ] I didn't know where to find care [ ] I couldn't get an appointment anywhere [ ] There was no care available [ ] I didn't think it was necessary [ ] I thought it was necessary, but I never tried to get care [ ] Other*
Please describe the other reason:: _____	
During the last 6 months, did you ever need <u>mental health care</u> but could not get it?	*[ ] Yes [ ] No*

The last time you needed but did not get <u>mental health care</u>, what was the main reason?	*[ ] I couldn't afford the care [ ] I didn't know where to find care [ ] I couldn't get an appointment anywhere [ ] There was no care available [ ] I didn't think it was necessary [ ] I thought it was necessary, but I never tried to get care [ ] Other*
Please describe the other reason:: _____	

The next set of questions asks about the care you receive from the person you consider to be your "regular healthcare provider." Your regular provider could be a family practitioner, a general internist, a nurse practitioner, or a physician's assistant.

Do you have a regular provider, meaning someone you see if you need a check-up, want advice about a health problem, or get sick or hurt?	*[ ] Yes [ ] No*
How long have you been going to this provider?	*[ ] Less than 6 months [ ] At least 6 months but less than 1 year [ ] At least 1 year but less than 3 years [ ] At least 3 years but less than 5 years [ ] 5 years or more*
Is this provider a VA provider?	*[ ] Yes [ ] No*
If this provider is a VA provider, is the provider located in:	*[ ] The Primary Care Clinic [ ] The Women's Center*

The next set of questions asks about the <u>most recent visit with your regular provider</u>. Please think back to this most recent visit when answering the next set of questions.

During your most recent visit with this provider, were you kept informed about how long you would need to wait for your appointment to start?	*[ ] Yes [ ] No*
Wait time includes time spent in the waiting room and exam room. During your most recent visit with this provider, did you see this provider within 15 minutes of your appointment time?	*[ ] Yes [ ] No*
During your most recent visit, did this provider explain things in a way that was easy to understand?	*[ ] Yes [ ] No*
During your most recent visit, did you talk with this provider about any health problems or concerns?	*[ ] Yes [ ] No*
During your most recent visit, did this provider give you easy to understand instructions about what to do to take care of these health problems or concerns?	*[ ] Yes [ ] No*
During your most recent visit, did this provider seem to know the important information about your medical history?	*[ ] Yes [ ] No*
During your most recent visit, did this provider show concern about your health and how you were feeling?	*[ ] Yes [ ] No*
During your most recent visit, did this provider spend enough time with you?	*[ ] Yes [ ] No*
During your most recent visit, did clerks and receptionists at this provider's office treat you with courtesy and respect?	*[ ] Yes [ ] No*

Using any number from 0 to 10, where 0 is the worst medical care possible and 10 is the best medical care possible, what number woud you use to rate the medical care you received during your most recent visit with this provider?	*[ ] 0 (Worst medical care possible) [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 (Best medical care possible)*

Social Support

The next section is about self-help groups, by which we mean groups organized and run by people who get together on the basis of a common experience or goal to mutually help or support one another.

In the past year, have you attended any self-help or social support groups?	*[ ] Yes [ ] No*

Please indicate up to 3 support or self-help groups you have attended in the past 12 months.

Group #1 (group you attended most often):	*[ ] Not applicable [ ] Groups for people with problems with drugs or alcohol (such as AA or NA) [ ] Groups for people with emotional problems [ ] Groups for people with eating problems [ ] Groups for people dealing with the death of a loved one [ ] Groups for people making other life transitions (such as Parents Without Partners) [ ] Groups for survivors (such as Survivors of Childhood Sexual Abuse) [ ] Groups for people living with physical disabilities [ ] Parent support groups [ ] Groups for families of people with physical illness [ ] Groups for the families of people with emotional or substance abuse problems [ ] Groups specifically for veterans, such as DAV, the American Legion, or VFW [ ] Other self-help or support group*
Group #2 (the group you attended second most often):	*[ ] Not applicable [ ] Groups for people with problems with drugs or alcohol (such as AA or NA) [ ] Groups for people with emotional problems [ ] Groups for people with eating problems [ ] Groups for people dealing with the death of a loved one [ ] Groups for people making other life transitions (such as Parents Without Partners) [ ] Groups for survivors (such as Survivors of Childhood Sexual Abuse) [ ] Groups for people living with physical disabilities [ ] Parent support groups [ ] Groups for families of people with physical illness [ ] Groups for the families of people with emotional or substance abuse problems [ ] Groups specifically for veterans, such as DAV, the American Legion, or VFW [ ] Other self-help or support group*
Group #3 (the group you attended third most often):	*[ ] Not applicable [ ] Groups for people with problems with drugs or alcohol (such as AA or NA) [ ] Groups for people with emotional problems [ ] Groups for people with eating problems [ ] Groups for people dealing with the death of a loved one [ ] Groups for people making other life transitions (such as Parents Without Partners) [ ] Groups for survivors (such as Survivors of Childhood Sexual Abuse) [ ] Groups for people living with physical disabilities [ ] Parent support groups [ ] Groups for families of people with physical illness [ ] Groups for the families of people with emotional or substance abuse problems [ ] Groups specifically for veterans, such as DAV, the American Legion, or VFW [ ] Other self-help or support group*

How often are you in contact with any members of your family - that is, any of your brothers, sisters, parents or children who do not live with you - including visits, phone calls, letters, or electronic mail messages?	*[ ] Several times a day [ ] About once a day [ ] Several times a week [ ] About once a week [ ] 2 or 3 times a month [ ] About once a month [ ] Less than once a month [ ] Never or hardly ever*

People sometimes look to others for companionship, assistance, or other types of support. How often were each of the following kinds of support available to you if you needed it during the past four weeks?

Someone to give you money if you needed it?	*[ ] All of the time [ ] Most of the time [ ] Some of the time [ ] A little of the time [ ] None of the time*
Someone to help you with daily chores if you were sick?	*[ ] All of the time [ ] Most of the time [ ] Some of the time [ ] A little of the time [ ] None of the time*
Someone to love and make you feel wanted?	*[ ] All of the time [ ] Most of the time [ ] Some of the time [ ] A little of the time [ ] None of the time*

During the past four weeks, how much of the time:

Have you had serious disagreements with your family about things that were important to you?	*[ ] All of the time [ ] Most of the time [ ] Some of the time [ ] A little of the time [ ] None of the time*
Have you had serious disagreements with your friends about things that were important to you?	*[ ] All of the time [ ] Most of the time [ ] Some of the time [ ] A little of the time [ ] None of the time*
Have you felt that others were trying to make changes in you that you did not want to make?	*[ ] All of the time [ ] Most of the time [ ] Some of the time [ ] A little of the time [ ] None of the time*

Quality of Life

These questions ask for your views about your health. This information will help keep track of how you feel and how well you are able to do your usual activities.

In general, would you say your health is:	*[ ] Excellent [ ] Very Good [ ] Good [ ] Fair [ ] Poor*

The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf?	*[ ] Yes, Limited A Lot [ ] Yes, Limited A Little [ ] No, Not Limited At All*
Climbing several flights of stairs?	*[ ] Yes, Limited A Lot [ ] Yes, Limited A Little [ ] No, Not Limited At All*

During the past 4 weeks have you had any of the following problems with your work or other daily activities as a result of your physical health?

Accomplished less than you would like.	*[ ] No, none of the time [ ] Yes, a little of the time [ ] Yes, some of the time [ ] Yes, most of the time [ ] Yes, all of the time*
Were limited in the kind of work or other activities.	*[ ] No, none of the time [ ] Yes, a little of the time [ ] Yes, some of the time [ ] Yes, most of the time [ ] Yes, all of the time*

During the past 4 weeks have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

Accomplished less than you would like.	*[ ] No, none of the time [ ] Yes, a little of the time [ ] Yes, some of the time [ ] Yes, most of the time [ ] Yes, all of the time*
Didn't do work or other activities as carefully as usual.	*[ ] No, none of the time [ ] Yes, a little of the time [ ] Yes, some of the time [ ] Yes, most of the time [ ] Yes, all of the time*

During the <u>past 4 weeks</u>, how much did pain interfere with your normal work (including both work outisde the home and housework)?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*

These questions are about how you feel and how things have been with you during the <u>past 4 weeks</u>. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks:

Have you felt calm and peaceful?	*[ ] All of the Time [ ] Most of the Time [ ] A Good Bit of the Time [ ] Some of the Time [ ] A Little of the Time [ ] None of the Time*
Did you have a lot of energy?	*[ ] All of the Time [ ] Most of the Time [ ] A Good Bit of the Time [ ] Some of the Time [ ] A Little of the Time [ ] None of the Time*
Have you felt downhearted and blue?	*[ ] All of the Time [ ] Most of the Time [ ] A Good Bit of the Time [ ] Some of the Time [ ] A Little of the Time [ ] None of the Time*
During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?	*[ ] All of the Time [ ] Most of the Time [ ] A Good Bit of the Time [ ] Some of the Time [ ] A Little of the Time [ ] None of the Time*
Compared to one year ago, how would you rate your physcial health in general now?	*[ ] Much better [ ] Slightly better [ ] About the same [ ] Slightly worse [ ] Much worse*
Compared to one year ago, how would you rate your emotional health (such as feeling anxious, depressed or irratable) now?	*[ ] Much better [ ] Slightly better [ ] About the same [ ] Slightly worse [ ] Much worse*
Do you have a disabling condition?	*[ ] Yes [ ] No*
In your opinion is this condition service-related?	*[ ] Yes [ ] No*
Do you have a service-connected disability rating?	*[ ] Yes [ ] No [ ] Pending / Under review*
What is your service-connected percent disability rating (%) ? (Enter 0 if you have no rating): _____	

Demographics

What is the <u>highest</u>	*[ ] None/less than high school [ ] High School diploma or*

level or year of school you completed?	*G.E.D. [ ] A.A. or associates degree, junior or 2-year college [ ] B.A., B.S., Bachelor's, 4 year college [ ] Graduate or professional degree*
What is your <u>main</u> racial or ethnic group?	*[ ] White or Caucasian, but not Hispanic or Latino [ ] Black or African-American, but not Hispanic or Latino [ ] Hispanic or Latino [ ] American Indian or Alaskan Native [ ] Asian or Pacific Islander*
What is your current legal marital status?	*[ ] Married [ ] Divorced [ ] Separated [ ] Widowed [ ] Single*
At this time, are you living alone or are there others living in your household?	*[ ] Living alone [ ] Other(s) in household*
Are you now living with:	*[ ] A legal husband or wife [ ] A male partner or boyfriend [ ] A female partner or girlfriend [ ] Other adults or children who are related to you [ ] Other roommates or people who are not related to you*

The following questions are about the types of places you have lived recently. Please inidicate whether or not you live in a place for any amount of time in the last six months.

Apartment or house that you or your spouse/partner own	*[ ] Yes [ ] No*
Apartment, room or house which you or your partner rent or live in without paying rent	*[ ] Yes [ ] No*
"Doubled up" with a friend or relative on a sofa, floor, etc.	*[ ] Yes [ ] No*
Single Room Only (SRO) or 'welfare hotel'	*[ ] Yes [ ] No*
Shelter	*[ ] Yes [ ] No*
Street or public place	*[ ] Yes [ ] No*
Hospital, nursing home, residential care facility	*[ ] Yes [ ] No*
Other place	*[ ] Yes [ ] No*
What is your current employment status?	*[ ] Employed for wages [ ] Self employed [ ] Looking for work and unemployed for more than one year [ ] Looking for work and unemployed for less than one year [ ] Unemployed and not looking for work [ ] Homemaker [ ] Student [ ] Retired [ ] Unable to work*
How many members of your household, including yourself, are 18 years of age or older?: _____	
How many children less than 18 years of age live in your household?: _____	

The next questions ask about the different sources of income you may have. For each question, please select the correct income from the list. If your answer is 'none,' please select $0.

First, what was your own personal earnings income in the past 12 months before taxes? Count only wages and other stipends from your own employment, not pensions, investments, and any other financial assistance or income.

Your own personal earnings income:	*[ ] $0 [ ] $1 - $25,000 [ ] $25,001 - $50,000 [ ] $50,001 - $75,000 [ ] $75,001 - $100,000 [ ] $100,001 - $150,000 [ ] $150,001 - $200,000 [ ] More than $200,000 [ ] Refused [ ] Don't know*

What was your partner/spouse's earnings income in the past 12 months before taxes? Count only wages and other stipends from your partner/spouse's employment, not pensions, investments, and any other financial assistance or income. (Your best estimate is fine. If you have no spouse or partner, select $0).

Spouse's or partner's personal earnings income:	*[ ] $0 [ ] $1 - $25,000 [ ] $25,001 - $50,000 [ ] $50,001 - $75,000 [ ] $75,001 - $100,000 [ ] $100,001 - $150,000 [ ] $150,001 - $200,000 [ ] More than $200,000 [ ] Refused [ ] Don't know*

This is the end of the first form in this survey. If you have any questions regarding how to complete this survey or need assistance, please contact your local study coordinator listed below:

· VA Connecticut Healthcare System, West Haven Campus
Mr. Norman Silliker at

· Richard L. Roudebush VA Medical Center (Indianapolis VA Medical Center)
Ms. JoAnn Balph at

Depression and Anxiety

Over the last 2 weeks how often have you been bothered by any of the following problems?

Little interest or pleasure in doing things.	*[ ] Not at all [ ] Several days [ ] More than half the days [ ] Nearly everyday*
Feeling down, depressed, or hopeless.	*[ ] Not at all [ ] Several days [ ] More than half the days [ ] Nearly everyday*
Trouble falling/staying asleep, sleeping too much	*[ ] Not at all [ ] Several days [ ] More than half the days [ ] Nearly everyday*
Feeling tired or having little energy	*[ ] Not at all [ ] Several days [ ] More than half the days [ ] Nearly everyday*
Poor appetite or overeating	*[ ] Not at all [ ] Several days [ ] More than half the days [ ] Nearly everyday*
Feeling bad about yourself or that you are a failure or have let yourself or your family down.	*[ ] Not at all [ ] Several days [ ] More than half the days [ ]*

	Nearly everyday
Trouble concentrating on things, such as reading the newspaper or watching television.	*[ ] Not at all [ ] Several days [ ] More than half the days [ ] Nearly everyday*
Moving or speaking so slowly that other people could have noticed. Or the opposite-being so fidgety or restless that you have been moving around a lot more than usual.	*[ ] Not at all [ ] Several days [ ] More than half the days [ ] Nearly everyday*
Thoughts that you would be better off dead or hurting yourself in some way.	*[ ] Not at all [ ] Several days [ ] More than half the days [ ] Nearly everyday*

Questions About Anxiety

In the <u>last 4 weeks</u>, have you had an anxiety attack-suddenly feeling fear or panic?	*[ ] Yes [ ] No*
Has this ever happened to you before?	*[ ] Yes [ ] No*
Do some of these attacks come <u>suddenly out of the blue</u> - that is, in situations where you don't expect to be nervous or uncomfortable?	*[ ] Yes [ ] No*
Do these attacks bother you a lot or are you worried about having another attack?	*[ ] Yes [ ] No*
During your last bad anxiety attack, did you have symptoms like shortness of breath, sweating, your heart racing or pounding, dizziness or faintness, tingling or numbness, or nausea or upset stomach?	*[ ] Yes [ ] No*

If you experienced any of the problems described in the questions above, how <u>difficult</u> have these problems made it for you to do your work, take care of things at home, or get along with other people?	*[ ] Not difficult at all [ ] Somewhat difficult [ ] Very difficult [ ] Extremely difficult*

In the last 4 weeks, how much have you been bothered by any of the following problems?

Worrying about your health	*[ ] Not bothered [ ] Bothered a little [ ] Bothered a lot*
Your weight or how you look	*[ ] Not bothered [ ] Bothered a little [ ] Bothered a lot*
Little or no sexual desire or pleasure during sex	*[ ] Not bothered [ ] Bothered a little [ ] Bothered a lot*
Difficulties with husband/wife, partner/lover, or boyfriend/girlfriend	*[ ] Not bothered [ ] Bothered a little [ ] Bothered a lot*
The stress of taking care of children, parents, or other family members	*[ ] Not bothered [ ]*

	Bothered a little [ ] Bothered a lot
Stress at work outside of the home or at school	*[ ] Not bothered [ ] Bothered a little [ ] Bothered a lot*
Financial problems or worries	*[ ] Not bothered [ ] Bothered a little [ ] Bothered a lot*
Having no one to turn to when you have a problem	*[ ] Not bothered [ ] Bothered a little [ ] Bothered a lot*
Something bad that happened <u>recently</u>	*[ ] Not bothered [ ] Bothered a little [ ] Bothered a lot*
Thinking or dreaming about something terrible that happened to you <u>in the past</u>-like your house being destroyed, a severe accident, being hit or assaulted, or being forced to commit a sexual act.	*[ ] Not bothered [ ] Bothered a little [ ] Bothered a lot*

Stress

Instructions: The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate how often you felt or thought a certain way.

In the last month, how often have you felt that you were unable to control the important things in your life?	*[ ] Never [ ] Almost never [ ] Sometimes [ ] Fairly often [ ] Very often*
In the last month, how often have you felt confident about your ability to handle your personal problems?	*[ ] Never [ ] Almost never [ ] Sometimes [ ] Fairly often [ ] Very often*
In the last month, how often have you felt that things were going your way?	*[ ] Never [ ] Almost never [ ] Sometimes [ ] Fairly often [ ] Very often*
In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	*[ ] Never [ ] Almost never [ ] Sometimes [ ] Fairly often [ ] Very often*

Pain

The following questions ask about pain or discomfort you have had in the <u>past week</u>.

Rate your pain by choosing the number that best describes your pain at its <u>worst</u> in the past week:	*[ ] 0 - No pain [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 - Pain as bad as you can imagine*
Choose the number that best describes your pain at its <u>least</u> in the past week:	*[ ] 0 - No pain [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 - Pain as bad as you can imagine*

Choose the number that best describes your pain on <u>average</u> in the past week:	*[ ] 0 - No pain [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 - Pain as bad as you can imagine*
Choose the number that best describes your pain right <u>now</u>:	*[ ] 0 - No pain [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 - Pain as bad as you can imagine*

Have you had this pain or discomfort more than 3 months?	*[ ] Yes [ ] No*
How long have you had pain or discomfort?	*[ ] 3 - 6 months [ ] 6 - 9 months [ ] 9 - 12 months [ ] 12 - 18 months [ ] 18 - 24 months [ ] 2 - 4 years [ ] more than 4 years*

Please choose the number that describes how, during the <u>past week</u>, pain has interfered with your:

General activity	*[ ] 0 - Does not interfere [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 - Completely interferes*
Mood	*[ ] 0 - Does not interfere [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 - Completely interferes*
Walking ability (or ability to get around, if you can't walk for a reason other than pain)	*[ ] 0 - Does not interfere [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 - Completely interferes*
Normal work (including both work outside the home and housework)	*[ ] 0 - Does not interfere [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 - Completely interferes*
Relationships with other people	*[ ] 0 - Does not interfere [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 - Completely interferes*
Sleep	*[ ] 0 - Does not interfere [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 - Completely interferes*
Enjoyment of life	*[ ] 0 - Does not interfere [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 - Completely interferes*

The following questions ask about pain you have had in the last <u>three months</u>.

On about how many days have you had pain in the last 3 months?: _____

In the past 3 months, did you have . . .

Back pain?	*[ ] Yes [ ] No*
Neck pain?	*[ ] Yes [ ] No*
Headache or migraine?	*[ ] Yes [ ] No*
Stomach ache or abdominal pain?	*[ ] Yes [ ] No*

Joint pain in your arms, hands, legs, or feet?	*[ ] Yes [ ] No*
Chest pain?	*[ ] Yes [ ] No*
Facial ache or pain?	*[ ] Yes [ ] No*
Whole body pain?	*[ ] Yes [ ] No*
Which one pain bothered you the most in the past 3 months?	*[ ] Back pain [ ] Neck pain [ ] Headache or migraine [ ] Stomach ache or abdominal pain [ ] Joint pain in your arms, hands, legs or feet [ ] Chest pain [ ] Facial ache or pain [ ] Whole body pain*
Overall, how has the severity of your pain changed over the past 3 months?	*[ ] Very much worse [ ] Much worse [ ] A little worse [ ] No change [ ] A little better [ ] Much better [ ] Very much better*

The following questions ask about medication for aches or pain.

Have you used any medication for aches or pain in the past week?	*[ ] Yes [ ] No*

Please indicate all of the medications that you have used <u>for your pain</u> in the past week.

Herbal or nutritional supplements	*[ ] Yes [ ] No*
Acetaminophen (Tylenol)	*[ ] Yes [ ] No*
Anti-inflammatory medications such as ibuprofen (Motrin), naproxen (Naprosyn, Aleve), indomethacin (Indocin), meloxicam (Mobic), etodolac, Celebrex	*[ ] Yes [ ] No*
Morphine (MS Contin, Roxanol, Oramorph)	*[ ] Yes [ ] No*
Oxycodone (OxyContin, Percocet, Roxicet, Tylox, Endocet)	*[ ] Yes [ ] No*
Hydrocodone (Vicodin, Lortab, Norco)	*[ ] Yes [ ] No*
Methadone (Dolophine)	*[ ] Yes [ ] No*
Fentanyl (Duragesic, Actiq)	*[ ] Yes [ ] No*
Codeine (Tylenol #3,Tylenol #4)	*[ ] Yes [ ] No*
Propoxyphene (Darvon, Darvocet)	*[ ] Yes [ ] No*
Tramadol (Ultram, Ultracet)	*[ ] Yes [ ] No*
Amitriptyline (Elavil), nortriptyline (Pamelor), doxepin, imipramine	*[ ] Yes [ ] No*
Cyclobenzaprine (Flexeril), methocarbamol (Robaxin), carisoprodol (Soma)	*[ ] Yes [ ] No*
Gabapentin (Neurontin), Lyrica, Topamax	*[ ] Yes [ ] No*

Cymbalta, venlafaxine (Effexor)	*[ ] Yes [ ] No*
Other pain medicine, write in:: _____	
In the <u>past week</u>, how many days did you take medication for pain?: _____	

Please indicate all of the treatments that you have used for your pain in the past year:

Injections in spine or back	*[ ] Yes [ ] No*
Injections in joint, tendon, or bursa	*[ ] Yes [ ] No*
Braces, splints, orthotics, or prosthetics	*[ ] Yes [ ] No*
Physical therapy	*[ ] Yes [ ] No*
Surgery	*[ ] Yes [ ] No*
Chiropractic	*[ ] Yes [ ] No*
Acupuncture	*[ ] Yes [ ] No*
Psychotherapy or counseling	*[ ] Yes [ ] No*
Massage	*[ ] Yes [ ] No*
Educational classes or support groups	*[ ] Yes [ ] No*
Exercise instruction or classes	*[ ] Yes [ ] No*
Other non-medication treatment, write in:: _____	

Please indicate all of the following that you have used for your pain in the past year.

Medication that was prescribed for another person	*[ ] Yes [ ] No*
Marijuana	*[ ] Yes [ ] No*
Other street drugs	*[ ] Yes [ ] No*
Alcohol	*[ ] Yes [ ] No*
In the last week, how much relief have pain treatments or medications provided? Please choose the one percentage that best shows how much relief you have received.	*[ ] 0% - No Relief [ ] 10% [ ] 20% [ ] 30% [ ] 40% [ ] 50% [ ] 60% [ ] 70% [ ] 80% [ ] 90% [ ] 100% - Complete Relief*
How satisfied are you with the <u>results</u> of your pain treatment overall?	*[ ] Very dissatisfied [ ] Dissatisfied [ ] Slightly dissatisfied [ ] Slightly satisfied [ ] Satisfied [ ] Very satisfied*

*Reminder! Save your responses. Click the **Save** button in the blue area at the bottom of this page.*

Experiences With Stressful Military Experiences

INSTRUCTIONS: Below is a list of problems and complaints that veterans sometimes have in response to stressful military experiences. Please read each one carefully, then choose the number that indicates how much you have been bothered by that problem in the past month.

Repeated, disturbing memories, thoughts, or images of a stressful military experience?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ]*

	Extremely
Repeated, disturbing dreams of a stressful military experience?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Suddenly acting or feeling as if a stressful military experience were happening again (as if you were reliving it)?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Feeling very upset when something reminded you of a stressful military experience?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of a stressful military experience?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Avoiding thinking about or talking about a stressful military experience or avoiding having feelings related to it?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Avoiding activities or situations because they reminded you of a stressful military experience?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Trouble remembering important parts of a stressful military experience?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Loss of interest in activities that you used to enjoy?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Feeling distant or cut off from other people?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Feeling emotionally numb or being unable to have loving feelings for those close to you?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Feeling as if your future will somehow be cut short?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Trouble falling or staying asleep?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Feeling irritable or having angry outbursts?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Having difficulty concentrating?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Being "super-alert" or watchful or on guard?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*
Feeling jumpy or easily startled?	*[ ] Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ] Extremely*

Combat Exposure

How many times did you ever go on combat patrols, participate in amphibious invasions, or have other very dangerous duty?	*[ ] Never [ ] 1-2 Times [ ] 3-12 Times [ ] 13-50 Times [ ] More than 50 times*
How many months were you ever under enemy fire?	*[ ] Never [ ] Less than 1 month [ ] 1-3 Months [ ] 4-5 Months [ ] More than 6 months*
How many times were you ever surrounded by the enemy?	*[ ] Never [ ] 1-2 Times [ ] 3-12 Times [ ] More than 12 times*
What percentage of the men and women in your unit were killed (KIA), wounded or missing (MIA) in action?	*[ ] No one [ ] Between 1 - 25% [ ] Between 26 - 50% [ ] More than 50%*
How many times did you ever fire rounds at the enemy?	*[ ] Never [ ] 1-2 Times [ ] 3-12 Times [ ] 13-50 Times [ ] More than 50 times*
How many times did you ever see someone hit by incoming or outgoing rounds?	*[ ] Never [ ] 1-2 Times [ ] 3-12 Times [ ] 13-50 Times [ ] More than 50 times*
How many times were you ever in danger of being injured or killed (i.e. shot at, bombed, torpedoed, pinned down, ambushed, near miss)?	*[ ] Never [ ] 1-2 Times [ ] 3-12 Times [ ] 13-50 Times [ ] More than 50 times*

Military Sexual Trauma

While you were in the military, did you receive uninvited and unwanted sexual attention, such as touching, cornering, pressure for sexual favors, or sexual remarks?	*[ ] Yes [ ] No*
While you were in the military, did someone ever use force or threat of force to have sexual contact with you against your will?	*[ ] Yes [ ] No*

Traumatic Life Events Checklist

The purpose of the following questions is to identify important life experiences that can affect a person's emotional well-being or quality of life. Listed below are a number of difficult or stressful things that sometimes happen to people. Be sure to consider your *entire life* (growing up, as well as adulthood) as you go through the list of events.

Have you ever experienced a natural disaster (been caught in a flood, hurricane, earthquake)?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Were you ever involved in a serious motor vehicle accident which required medical attention or that badly injured or killed someone?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Were you ever involved in any "Other" accident where you or someone else was badly hurt?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4*

	times [ ] 5 times [ ] More than 5 times
Have you lived, worked or had military service in a war zone and been exposed to warfare or combat (e.g. been in the vicinity of a rocket attack, people being fired upon, seeing someone get wounded or killed)?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Have you experienced the sudden, unexpected death of a close friend or loved one?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Has a loved one ever faced a life threatening or permanently disabling accident, assault, or illness (e.g. spinal cord injury, rape/sexual assault, cancer, life threatening virus)?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Have you ever had a life threatening illness?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Have you ever been robbed or witnessed an armed robbery?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Have you ever been hit, beaten up or badly hurt by a stranger or by someone you didn¿t know?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Have you ever seen someone else attacked and seriously injured or killed?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Has anyone ever threatened to kill you or cause you serious physical harm?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
While you were growing up, were you ever physically punished in a way that resulted in bruises, burns, cuts or broken bones?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
While you were growing up, did you see or hear family violence? (e.g. an adult member hitting, beating up or inflicting bruises, burns or cuts on another family member).	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Have you ever been slapped, punched, kicked, beaten up, or otherwise physically hurt by your spouse (or former spouse), a boyfriend/girlfriend, or some other intimate partner?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Before your 13th birthday did anyone who was <u>at least 5 years older than you</u> ever touch or fondle your body in a sexual way or make you touch/fondle them in a sexual way?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Before your 13th birthday did anyone close to your age ever touch you	*[ ] Never [ ] Once [ ]*

in a sexual way or make you touch them in a sexual way <u>against your will or without your consent</u>?	*Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
After your 13th birthday and before your 18th birthday did anyone touch the sexual parts of your body or make you touch the sexual parts of their body against your will or without your consent?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Were you ever subjected to uninvited or unwanted sexual attention? (other than contact covered in questions above (e.g. touching, cornering, pressure for sexual favors, verbal remarks).	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Has anyone stalked you (followed you, kept track of your activities causing you to feel intimidated or concerned for your safety)	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Have you or a romantic partner ever had a miscarriage?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Have you or a romantic partner ever had an abortion?	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*
Have you experienced or seen any other events that were life threatening caused serious injury or were highly disturbing or distressing? (e.g. violent death of a pet, being kidnapped or held hostage, seeing a mutilated body or body parts).	*[ ] Never [ ] Once [ ] Twice [ ] 3 times [ ] 4 times [ ] 5 times [ ] More than 5 times*

Smoking

Have you smoked at least 100 cigarettes (5 packs) in your entire life?	*[ ] Yes [ ] No*
How old were you when you FIRST started to smoke fairly regularly? Years old:: _____	
Do you NOW smoke cigarettes every day, some days or not at all?	*[ ] Every day [ ] Some days [ ] Not at all*
How long has it been since you last smoked cigarettes?	*[ ] Less than one month [ ] 1-5 months [ ] 6-11 months [ ] 1-5 years [ ] More than 5 years [ ] Still smoking [ ] Never smoked regularly*
Since you returned from deployment, do you now smoke:	*[ ] Never deployed [ ] Much more now than before I deployed [ ] Somewhat more now than before I deployed [ ] About the same as before I deployed [ ] Somewhat less than before I deployed [ ] Much less now than before I deployed*

Alcohol

How often do you have a drink containing alcohol?	*[ ] Never [ ] Monthly or less [ ] Two to four times a month [ ] Two to three times a week [ ] Four or more times a week*
How many drinks containing alcohol do you have on a typical day when you are drinking?	*[ ] 1 - 2 [ ] 3 - 4 [ ] 5 - 6 [ ] 7 - 9 [ ] 10 or more*
How often do you have six or more drinks on one occasion?	*[ ] Never [ ] Less than monthly [ ] Monthly [ ] Weekly [ ] Daily or almost daily*
How often during the last year have you found that you were not able to stop drinking once you had started?	*[ ] Never [ ] Less than monthly [ ] Monthly [ ] Weekly [ ] Daily or almost daily*
How often during the last year have you failed to do what was normally expected from you because of drinking?	*[ ] Never [ ] Less than monthly [ ] Monthly [ ] Weekly [ ] Daily or almost daily*
How often during the last year have you needed a first drink in the morning to get yourself going after heavy drinking session?	*[ ] Never [ ] Less than monthly [ ] Monthly [ ] Weekly [ ] Daily or almost daily*
How often during the last year have you had a feeling of guilt or remorse after drinking?	*[ ] Never [ ] Less than monthly [ ] Monthly [ ] Weekly [ ] Daily or almost daily*
How often during the last year have you been unable to remember what happened the night before because you had been drinking?	*[ ] Never [ ] Less than monthly [ ] Monthly [ ] Weekly [ ] Daily or almost daily*
Have you or someone else been injured as a result of your drinking?	*[ ] Never [ ] Yes, but not in the last year [ ] Yes, during the last year*
Has a relative, friend, doctor or other health worker been concerned about your drinking or suggested you cut down?	*[ ] No [ ] Yes, but not in the last year [ ] Yes, during the last year*

In the past 12 months have any of your VA providers (doctors or health professionals):

Asked about your drinking?	*[ ] Yes [ ] No*
Advised you to drink less?	*[ ] Yes [ ] No*
Advised you not to drink alcohol?	*[ ] Yes [ ] No*
Referred you to an alcoholic treatment program?	*[ ] Yes [ ] No*
Since you returned from deployment, do you now drink:	*[ ] Never deployed [ ] Much more now than before I deployed [ ] Somewhat more now than before I deployed [ ] About the same as before I deployed [ ] Somewhat less than before I deployed [ ] Much less now than before I deployed*

Drug Use

The next questions are about your use of drugs or medications on your own. By 'on your own' we mean either without a doctor's prescription, in larger amounts than prescribed, or for a longer period than prescribed. With this definition in mind, did you ever use any of the following substances on your own during the past 12 months?

Sedatives, including either barbiturates or sleeping pills on your own (e.g. Seconal,	*[ ] Yes*

Halcion, Methaqualone)	*[ ] No*
Tranquilizers or nerve pills on your own (e.g. Librium, Valium, Ativan, Xanax)	*[ ] Yes* *[ ] No*
Amphetamines or other stimulants on your own (e.g. Methamphetamine, Preludin, Dexedrine, Ritalin, "Speed")	*[ ] Yes* *[ ] No*
Analgesics or other prescription painkillers on your own (NOTE: this does not include normal use of aspirin, Tylenol without codeine, etc, but does include use of Tylenol with codeine and other prescribed painkillers like Demerol, Darvon, and Percodan)	*[ ] Yes* *[ ] No*
Prozac or other similar prescription medication to treat depression on your own	*[ ] Yes* *[ ] No*
Inhalants that you sniff or breathe to get high or to feel good (e.g. Amylnitrate, Freon, Nitrous Oxide (Whippets), Gasoline, Spray paint)	*[ ] Yes* *[ ] No*
Marijuana or hashish	*[ ] Yes* *[ ] No*
Cocaine or crack or free base	*[ ] Yes* *[ ] No*
LSD or other hallucinogens (e.g. PCP, angel dust, peyote, ecstasy) (MDMA)	*[ ] Yes* *[ ] No*
Heroin	*[ ] Yes* *[ ] No*

The following questions refer to drug use in the past 12 months.

Have you used drugs other than those required for medical reasons?	*[ ] Yes [ ] No*
Do you abuse more than one drug at a time?	*[ ] Yes [ ] No*
Are you always able to stop using drugs when you want to?	*[ ] Yes [ ] No*
Have you had blackouts or flashbacks as a result of drug use?	*[ ] Yes [ ] No*
Do you ever feel bad or guilty about your drug use?	*[ ] Yes [ ] No*
Does your spouse (or parents) ever complain about your involvement with drugs?	*[ ] Yes [ ] No*
Have you neglected your family because of your use of drugs?	*[ ] Yes [ ] No*
Have you engaged in illegal activities in order to obtain drugs?	*[ ] Yes [ ] No*
Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?	*[ ] Yes [ ] No*
Have you had medical problems as a result of your drug use (e.g. memory loss, hepatitis, convulsions, bleeding, etc)?	*[ ] Yes [ ] No*

Since you returned from deployment, do you now use drugs:	*[ ] Never deployed [ ] Much more now than before I deployed [ ] Somewhat more now than before I deployed [ ] About the same as before I deployed [ ] Somewhat less than before I deployed [ ] Much less now than before I deployed*

Sexual Behavior

The next questions are about your sexual behavior. We recognize the following questions may be personal. We ask that you complete them to the best of your ability. By sex we mean oral, vaginal, or anal sex, but NOT masturbation. When we talk about condoms, we mean both male and female condoms.

During the past 12 months, have you had sex?	*[ ] Yes [ ] No*
During the past 12 months, have you had sex with only males, only females, or with both males and females?	*[ ] Only Males [ ] Only Females [ ] Both Males and Females*
How many sexual partners have you had in the last 12 months?: _____	
Of these people, how many of them were new partners, that is, people you had oral, anal, or vaginal sex with for the first or only time in the last 12 months?: _____	
Thinking back about the last time you had sex, did you or your partner use a condom?	*[ ] Yes [ ] No*
How would you describe your <u>current</u> sexual orientation?	*[ ] Straight or heterosexual [ ] Gay or lesbian [ ] Bisexual [ ] Celibate or asexual [ ] Not sure*

Eating Behaviors

The following questions are about your eating patterns when you feel stressed. Please determine your level of agreement with the following statements.

I use food to cope with my emotions.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I eat when I am upset with myself.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I eat when I am anxious.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I am confident I can control my eating when I am upset with myself.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I am confident I can control my eating when I feel upset.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I comfort myself with food.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I eat when I am frustrated.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I eat when I am sad.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ]*

	Strongly Agree
I am confident that I can control my eating when I am frustrated.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I eat when I am angry.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I am confident I can control my eating when I am sad.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I overeat when I am stressed.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I am confident that I can control my eating when I am anxious.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I am confident I can control my eating when I am angry.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I am confident I can control my eating when I am tired.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I feel out of control when I eat.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I eat when I am tired.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
It is hard for me to stop eating when I am full.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I eat to avoid dealing with problems.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I do NOT have control over how much I eat.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I am confident I can control my eating when I am relieved.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I overeat when I socialize.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I eat when I am relieved.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
I am confident I can control my eating when I feel happy.	*[ ] Strongly Disagree [ ] Disagree [ ] Neutral [ ] Agree [ ] Strongly Agree*
Have you ever been diagnosed with, or received treatment for, an eating disorder?	*[ ] Yes, I have been diagnosed with, and treated for, an eating disorder. [ ] Yes, I have been diagnosed with, but not treated for, an eating disorder. [ ] I suspect I may have an eating disorder, but have not received a formal diagnosis or received treatment for this eating disorder. [ ] No, I have not been diagnosed with an eating disorder.*
If you have not been diagnosed with an eating disorder, do you believe you have an eating disorder or disordered eating issues?	*[ ] Yes [ ] No [ ] Maybe*

If you have been diagnosed with, or received treatment for an eating disorder, please specify the type of eating disorder and whether this treatment/diagnosis was before, during, or after your military service.

Anorexia Nervosa	*[ ] Yes, diagnosis / treatment before my deployment [ ] Yes, diagnosis / treatment during my deployment [ ] Yes, diagnosis / treatment after my deployment [ ] No, never diagnosed or treated*
Bulimia Nervosa	*[ ] Yes, diagnosis / treatment before my deployment [ ] Yes, diagnosis / treatment during my deployment [ ] Yes, diagnosis / treatment after my deployment [ ] No, never diagnosed or treated*
Binge Eating Disorder	*[ ] Yes, diagnosis / treatment before my deployment [ ] Yes, diagnosis / treatment during my deployment [ ] Yes, diagnosis / treatment after my deployment [ ] No, never diagnosed or treated*

Do you ever lose control and over-eat truly large amounts of food?	*[ ] Yes [ ] No*
Afterwards, do you ever try to purge the food (with excessive exercise, vomiting, laxatives, or diuretics)?	*[ ] Yes, every time [ ] Yes, sometimes [ ] No, never*
How often do you participate in this type of overeating?	*[ ] Once per week or less [ ] Twice per week or more*
For how many months has this type of overeating occurred?	*[ ] Less than six months [ ] Between six and twelve months [ ] Greater than 1 year*
Since you returned from deployment, how often do you now participate in this type of overeating?	*[ ] Never deployed [ ] Much more now than before I deployed [ ] Somewhat more now than before I deployed [ ] About the same as before I deployed [ ] Somewhat less than before I deployed [ ] Much less now than before I deployed*

The *Reproductive Health* section are for female veterans only. However, there is an optional question at the end of this form for all veterans.

Reproductive Health (women only)

Have you ever been pregnant?	*[ ] Yes [ ] No*

Please provide information on each of your pregnancies using the table below. The birth weight in grams is automatically calculated. Click the "Add record" button to add information on each pregnancy.

Pregnancies

Was this pregnancy planned?	What was the result of this pregnancy?	146c. The year prenancy ended (YYYY)	Length of pregnancy (weeks)	Did you see a doctor while pregnant?	144f. Single or multiple pregnancy?	Birth Weight oz (lbs)		Was this child born with birth defects?	Describe any birth defects
[ ] Yes				[ ] Yes				[ ] Yes	

[ ] No				[ ] No	[ ] Single [ ] Twins [ ] Triplets [ ] More			[ ] No	

Choices for What was the result of this pregnancy?:

[ ] Live birth
[ ] Miscarriage
[ ] Stillbirth
[ ] Abortion
[ ] Ectopic or tubal

Were any of the pregnancies the result of sexual assault or abuse while in the military?

[ ] Yes [ ] No While in the military, did you ever have problems getting the birth control that you needed?

[ ] Yes [ ] No While in the military, did you use birth control pills or shots to stop or control your period?

[ ] Yes [ ] No

Have you ever tried for 12 months or longer to become pregnant?	*[ ] Yes [ ] No*
Did you ever seek medical help about your difficulty in getting pregnant on this occasion?	*[ ] Yes [ ] No*
Did the medical provider find a reason why you were unable to get pregnant?	*[ ] Yes [ ] No*
Please indicate the main reason.	*[ ] Problems with ovulation [ ] Blocked tubes [ ] Other pelvic or tube problems [ ] Endometriosis [ ] Semen or sperm problems [ ] Other problems [ ] Not sure or can't remember*

OPTIONAL QUESTION

Please let us know if there is any additional information you would like to share.:

You have reached the end of the survey. Thank you. We greatly appreciate your participation. If you have questions or suggestions, please contact your local study coordinator listed below:

· VA Connecticut Healthcare System, West Haven Campus
Mr. Norman Silliker at

· Richard L. Roudebush VA Medical Center (Indianapolis VA Medical Center)
Ms. JoAnn Balph at