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CAM Use in Recently-returned OEF/OIF/OND US Veterans: Demographic and Psychosocial Predictors

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Abstract

Objectives—Because the use of complementary and alternative medicine (CAM) is increasing among veterans, understanding more about the characteristics of veterans who use CAM is increasingly important. Studies reporting on predictors of use almost always discuss CAM in the aggregate, yet each CAM modality represents a unique approach to healthcare, and each may have different correlates as well as different effectiveness. Very little information is available about veterans' use of each distinct modality, and about psychosocial correlates of various forms of CAM use.

Design—We analyzed data from wave 1 of the Survey of the Experiences of Returning Veterans (SERV) Study, which included 729 veterans returning from Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF) and Operation New Dawn (OND).

Setting—Data were collected by telephone interviews.

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Main measures—We examined a range of potentially important correlates of CAM use, including demographics, military experiences, and current mental and physical health.

Results—Each predictor related to a unique constellation of CAM modalities; not one of the predictors examined was associated with more than half of the 12 modalities. For example, women were more likely to use acupuncture, massage, yoga, meditation and spiritual healing, and age related only to greater use of homeopathy, while deployment injuries related positively to use of chiropractic, nutrition and meditation.

Conclusions—Results suggest that in order to understand CAM use, CAM modalities should be considered unique and separate practices. This greater understanding should be useful for future health service provision for veterans.

Keywords

Complementary and Alternative Medicine; Military; Veterans

1. Introduction

The wars in Iraq and Afghanistan have produced hundreds of thousands of US military veterans suffering from psychological and physical injuries (Defense Casualty Analysis System, 2016). Although conventional medical treatments have provided some relief, additional approaches are needed to alleviate chronic pain, psychological distress, and functional impairments associated with war-related trauma and injuries (Institute of Medicine, 2014; 2011).

Unmet needs for effective treatment, along with many veterans' desires for drug-free and self-care healing practices, have led to increasing interest by both the Department of Defense and the Veterans Health Administration (VHA) in Complementary and Alternative Medicine (CAM) (Jonas et al., 2014; Davis et al., 2014). CAM definitions vary, but generally refer to practices that do not fit within the dominant biomedical model of health care and that are not commonly provided within standard medicine settings (Bishop et al., 2007).

Surveys of the health practices of these recent-era veterans have proliferated, including the Health Study for a New Generation of U.S. Veterans (NewGen) and the Survey of Experiences of Returning Veterans (SERV) Study, upon which the present analyses are based. According to the NewGen survey, 15% of OEF/OIF veteran respondents used CAM for a health problem within the last month (Reinhard et al., 2014), a number much lower than previous studies have estimated among active duty personnel and civilians across eras (ranging from 27-50%) (e.g., Davis et al., 2014; Jacobsen et al., 2011; Smith et al., 2007; Libby et al., 2013). This discrepancy may be because the NewGen study asked only about CAM use to address a discrete health problem, rather than for promoting general health or other reasons (Reinhard et al., 2014). The NewGen study also omitted yoga, meditation and prayer, all commonly-endorsed CAM modalities.

The increasing availability of CAM modalities provides access to services and practices that may promote veterans' healing and improved functioning with fewer pharmaceuticals and their undesirable side effects. A recent survey of 151 VHA sites found that 89% offered

some kind of CAM and 2% were developing such programs. Common reasons cited for developing these VHA CAM programs include wellness promotion, patient preference, adjunct management of chronic disease, proof of effectiveness, and provider request (VA Healthcare Analysis and Information Group, 2011).

The military community reports fairly high use of CAM, and much remains to be understood about this use, particularly characteristics of those using CAM and the *specific* CAM modalities they use. In addressing these questions, it is important to note that CAM represents a variety of distinct modalities. Most studies of CAM effectiveness focus on a specific modality such as yoga or acupuncture (Elwy et al., 2014), yet most studies of correlates of CAM aggregate many different types of CAM practices into a single category, limiting our understanding of use of specific modalities (Davis et al., 2014).

1.1 Correlates of CAM Use by Military/Veterans

Collectively, large-scale projects and smaller-scale studies yield a picture of the characteristics of an OIF/OEF/OND general CAM user. Demographic predictors of any type of CAM use in active duty service members and veterans include female gender (Smith et al., 2007; Reinhard et al., 2014; Goertz et al., 2013; Jacobson et al., 2009), white non-Hispanic race/ethnicity (Smith et al., 2007; Goertz et al., 2013), higher military status or level of education (Smith et al., 2007), and marital status of single (Reinhard et al., 2014; White et al., 2011). Most CAM use among recent era veterans occurs outside of the VA, despite the fact that those who report use of VA healthcare are more likely to use CAM than are those who do not (Reinhard et al., 2014).

Active duty and veteran CAM users report higher physical health symptoms and primary care service utilization (White et al., 2011; Jacobson et al., 2009; Baldwin et al., 2002; Holliday et al., 2014), higher anxiety and stress (Baldwin et al., 2002; McPherson & Schwenka, 2004; Goertz et al., 2013); and greater incidence of alcohol use problems than do their non-CAM-using peers (Jacobson et al., 2009). Higher levels of physical pain and lower levels of satisfaction with conventional medical care correlated with CAM use in a Navy and Marine Corps sample (Smith et al., 2007).

Although studies of health correlates of CAM use in veterans do not indicate the source of respondents' physical and mental health problems, many are likely related to deployment experiences. A recent study found no link between overall CAM use and deployment to a combat zone (Reinhard et al., 2014), yet very little is known about how specific deployment *experiences* relate to specific CAM use.

1.2 Current Study: Examining Correlates of Veterans' Specific CAM Modality Use

Despite increased interest in and research attention focused on CAM use in veterans, much remains to be learned. In particular, because most research aggregates information on diverse modalities, little is known about use and correlates of individual CAM modalities. In the general population, characteristics of users of different modalities vary greatly (Park, 2013). Such differences likely manifest in veterans' CAM use as well. The primary aim of our study was to examine the extent to which a range of veterans' characteristics differentially predicted use of each of 12 types of CAM.

Further, because few studies have examined psychosocial predictors of veterans' CAM use, a potentially critical part of the picture is missing. In particular, psychosocial characteristics that may render veterans more or less open to CAM as well as aspects of their experiences during deployment or following discharge to civilian life remain essentially unexamined (Davis et al., 2014). Thus, we examined a range of demographic and psychosocial predictors of CAM modality use in an OEF/OIF/OND veteran sample. These include service-related demographic variables (e.g., length of deployment), military circumstances and experiences (e.g., combat exposure, harassment, social support), and current mental and physical health (e.g., self-rated physical and mental health, stress).

2. Method

2.1 Procedure and participants

We analyzed data from wave 1 of the SERV Study, which assesses post-deployment experiences of veterans of OIF, OEF and OND. Veterans who served in Iraq, Afghanistan, or surrounding areas or waters were eligible for SERV. Recruitment took place through multiple outlets, including the Internet (e.g., Facebook, YouTube), Veterans Affairs (VA) resources (e.g., listservs, closed circuit televisions in VA facilities), and word of mouth. Respondents were interviewed by trained staff using structured telephone interviews lasting 60-80 minutes. At the time of analysis, 729 veterans had completed the wave 1 survey. All study procedures were approved by the West Haven VA Human Studies Subcommittee and Research and Development Committee.

2.2 Measures

2.2.1 Sociodemographic characteristics—For age and gender, participants were asked their date of birth and sex, respectively. In our analyses, we dichotomized sociodemographic data to optimize the sample size within categories. Age was divided at the median of 31.8 years old. For education, participants reported their highest year or grade of school completed. Response options ranged from “Some high school” to “Advanced graduate degree (e.g., MD, PhD, DMD),” and responses were dichotomized between achieving a bachelor's degree or higher versus less than a bachelor's degree. For race, participants were asked to check all that applied among “American Indian or Alaska Native,” “White,” “Black or African American,” “Native Hawaiian or other Pacific Islander,” and “Asian,” and data were divided by whether or not participants endorsed White. Participants indicated their combined total household income in the last 12 months by selecting one of six discrete income ranges, and responses were split at \$75,000 based on class models suggesting that household incomes above \$75,000 typically qualify as upper middle or upper class (Thompson & Hickey, 2005). We also examined, among those who accessed treatment for mental health or substance use problems in the last three months, the proportion who did so outside of the VA healthcare system. For both concerns, participants were asked whether in the last three months they had received services from a VA hospital or outpatient clinic, a Veterans' Center, a community mental health center, or some other provider and could check all that applied. We calculated the total number who endorsed any of these treatment options, and divided this by the total number who endorsed either a

community mental health center or some other provider (the latter two signifying non-VA settings).

2.2.2 Military Exposures—Three of our measures of military exposures were scales from the *Deployment Risk and Resiliency Inventory* (DRRI; King et al., 2006): “General Military Harassment” (8 items), “Military Sexual Harassment” (8 items), and “Combat Experiences” (17 items). The first of these asks participants about how the people with whom they worked treated them (e.g., “treated me in an overly critical way”). Sexual harassment questions asked about the frequency that, for example, military colleagues “made crude and offensive sexual remarks directed at me, either publicly or privately” or “used a position of authority to pressure me into unwanted sexual activity.” Response options for general and sexual harassment questions ranged from 1 (*Never*) to 4 (*Many Times*). Scores for each were summed and could range from 8 to 32. Combat exposure during deployment was measured using the Combat Experiences subscale of the DRRI. Frequencies of occurrence of 17 experiences (e.g., “I went on combat patrols or missions”) were measured on a scale of 0 (*Never*) to 5 (*Daily or Almost Daily*). Responses were summed for a total possible score between 0 and 85. This variable was highly positively skewed and not normalized using transformation; therefore we divided combat exposure into three groups (low, moderate, high) based on 33rd and 66th percentile cut points. For the remaining two measures of military exposures and conditions, participants provided the total number of months they were deployed and the number of injuries incurred during deployment. This latter question asked about five specific circumstances (e.g., “Bullet”, “Explosion”) and “Other” and the number of injuries incurred in each. We summed across the six categories. In analyses, we dichotomized all military exposure measures at the median, except for injuries, which we split into four groups: 0, 1-2, 3, and 4 or more.

2.2.3 Self-rated Physical and Mental Health—Self-rated physical health was measured by asking participants to evaluate their general health as *Poor* (1) to *Excellent* (5). We dichotomized this measure at 3. Self-rated mental health was ascertained by asking participants how much in the previous month emotional problems such as feeling depressed or anxious caused them to 1) accomplish less than they would like and 2) be less careful than usual in work or other regular daily activities. Response options ranged from *All of the time* (1) to *None of the Time* (5). We summed the two items and created a binary score with scores 7 indicating better, and scores from 2 to 6 indicating worse, self-rated mental health. Perception of life stress over the past month was measured with the Perceived Stress Scale (Cohen et al., 1983), four items (e.g., “How often have you felt that you were unable to control the important things in your life?”) with responses ranging from *Never* (0) to *Very often* (4). We dichotomized this variable at the median score of 6.

2.2.4 CAM Use—Participants were asked, “In the past 12 months, have you used any of the following types of care for a specific health reason (i.e., not to exercise or relax, but to address a health problem)?” The 12 specific modalities asked about were chiropractic, acupuncture, nutritional, massage, herbal, biofeedback, meditation, homeopathy, spiritual (prayer), hypnosis, traditional (such as ancient or Chinese medicine), and yoga. For all but massage, meditation, hypnosis, and yoga, brief explanations of each category were provided

(e.g., for nutritional, “diet adjustment for health reasons”; for herbal, “the use of plants or plant extracts”; for homeopathy, “stimulating the body's ability to heal itself by giving very small, diluted doses of substances that might be harmful at full strength in a healthy individual”).

2.3 Statistical Analyses

We first examined sample demographics and the extent of use of each of the twelve CAM modalities using standard descriptive analyses. We next investigated whether each independent variable predicted past 12-month ever/never use of each CAM modality. For these analyses, logistic regression can produce inflated estimates of the observed relationships whereas risk regression does not (Davies et al., 1998). Therefore, to test these dichotomous outcomes, we used relative risk regression with a Poisson distribution rather than logistic regression. All analyses were conducted using SAS 9.3 (SAS Institute, Cary, NC).

3. Results

Table 1 provides a demographic overview of our sample. The majority was male (67%), had less than a Bachelor's degree (61%), endorsed White race (not always exclusively) (83%), and had an annual household income below \$75,000 (77%). The median age was 31.8.

Table 2 describes participant military experiences. Over three quarters of participants (78.3%) reported a deployment to Iraq, nearly half (42.1%) experienced a deployment to Afghanistan, and many others were deployed to surrounding waters (34.7%), to Qatar (11.0%), or to Turkey (4.1%). A majority served in the Army (60.6%), with many also reporting service in the Marine Corps (14.0%), Air Force (13.4%), and Navy (11.9%). The median number of deployments experienced was two, with a median total deployment length of 15 months.

Table 3 displays the health characteristics of the sample. The majority rated physical and mental health as good (71% and 60%, respectively). Among those using any mental health or substance use treatment or support services in the prior three months, nearly 25% went outside of the VHA for at least some of those services.

Table 4 displays prevalence of past-12 month use of each CAM modality as well as the composite categories. Massage is the most prevalent modality, used by just over one-fifth of the sample. Then in descending order of prevalence are chiropractic, yoga, prayer, nutrition, and meditation. Biofeedback, homeopathy, and hypnosis were the least commonly used modalities, each by fewer than four percent of the sample. Forty-one percent used any CAM *service*, and just under 20% each use any CAM *product* or engage in prayer or meditation.

Predictive Analyses

Among the demographic variables examined, gender, age, and race were the most robust predictors of CAM use, particularly for meditation and prayer (Table 5). Specifically, women, older veterans, and non-Whites were significantly more likely than their respective comparison groups to engage in meditation or prayer for health. Additionally, women were

more than twice as likely as men to use acupuncture and yoga, and older veterans were five times more likely to use homeopathy than were younger veterans, though the confidence interval is wide for this latter estimate given the rarity of homeopathy use in our sample. Further, those with higher household income and at least a BA were significantly more likely, respectively, to use yoga and massage. Neither household income nor education significantly predicted any other CAM modality.

Table 6 shows that only two of our five military experience and condition measures significantly predicted using more than one CAM modality: sexual harassment and number of deployment injuries. In both cases, greater harassment and more injuries predicted more CAM use. Sexual harassment reliably predicted more use of meditation and prayer. Because female gender is strongly associated in our sample with both sexual harassment and use of meditation and prayer (as shown in Table 5), we examined whether gender confounds the relationship between sexual harassment and meditation and prayer; the association between sexual harassment and prayer remained robust (RR 1.82, 95% C.I. 1.22 – 2.73).

Better self-rated health and mental health each predicted lower likelihoods of using virtually all CAM modalities, with the preponderance of statistically significant findings in the meditation/prayer category (Table 7). By contrast, stressfulness in the past month predicted higher likelihood of engaging in most CAM modalities, particularly meditation and prayer.

4. Discussion

Results revealed that correlates of CAM use varied across CAM modalities. These findings demonstrate that the range of practices typically categorized as “CAM” must be considered individually to understand OEF/OIF/OND veterans' utilization, as patterns vary for each. Although most of our sample reported receiving health care through the VA, we do not have data on the setting in which the CAM modalities were accessed. Previous research indicates that most veteran CAM users access these practices outside of the VA (Reinhard et al., 2014). Thus, our findings support the VA's recent interest in extending CAM offerings and may inform the selection of which offerings may be best received by veterans.

As in the NewGen Study (Reinhard et al., 2014), massage and chiropractic were the most commonly used types of CAM in our sample. Biofeedback, homeopathy, and hypnosis, perhaps the least mainstream of the modalities examined, were used least in our sample, consistent with the results of previous studies in both military (Reinhard et al., 2014) and civilian (e.g., Barnes et al., 2008) samples.

Women reported higher rates of CAM use for nearly all modalities, especially for acupuncture, yoga, meditation and prayer, consistent with previous studies in both military and civilian samples (White et al., 2011, Reinhard et al., 2014, Bishop & Lewith, 2010). In our study, older individuals were only more likely to use homeopathy and meditation/spiritual modalities; previous studies have yielded inconsistent findings on relationships of age and CAM use in military samples, perhaps due to their aggregating “CAM use” (Goertz et al., 2013; Reinhard et al., 2014). Non-white race was a robust predictor of using meditation or prayer for health in this sample, yet race did not predict use of any other CAM

modality. Previous studies on CAM use in military and civilian populations are inconsistent as to whether race predicts CAM use, with findings likely dependent on the types of CAM included (Bishop & Lewith, 2010).

Our findings on sexual harassment and deployment injuries are relevant to the healthcare community's current focus on combat injuries and military sexual trauma in returning troops. Those who reported higher levels of military sexual harassment were more likely to use CAM services in general as well as herbal products, meditation and prayer for health than were individuals who reported lower levels of military sexual harassment, whereas individuals with more physical injuries exhibited more use of both CAM services and products in general, but not meditation and prayer, than did individuals with fewer physical injuries. Although it seems reasonable that individuals with a greater number of physical injuries would utilize a greater number of CAM modalities to address their health, it is less clear why we see a similar pattern in individuals with high rates of reported military sexual harassment. This pattern may indicate reluctance by individuals with a history of sexual harassment to utilize traditional physician-administered healthcare or a preference for self-administered forms of pain management and coping. It also bears noting that yoga and meditation shared many predictors, including female gender and reported sexual harassment. These similarities may be attributable in part to the meditative aspects of many forms of yoga, which may be well-received by a military population.

We also found that veterans with poorer reported physical or mental health, or higher perceived stress, were more likely to use some, but not all CAM modalities than were those who reported better health and less stress. These findings may reflect these veterans' greater needs for healing. Their CAM use may also reflect reluctance to seek conventional mental health treatment, a well-documented pattern in recent-era veterans (Hoge et al., 2004); this represents a possibility that awaits future testing.

While this study advances our understanding of veterans' use of specific CAM modalities, its limitations must be noted. First, we primarily captured participants who rely on the VA for care. There may be a group of returning veterans who are not linked into the system and who display different profiles of symptoms and/or CAM use (cf., Davis et al. 2014). Second, the cross-sectional study design precludes examining how these relationships might evolve as veterans readjust to civilian life or the direction of some of the relationships (e.g., does mental health influence CAM use or vice versa). The number of veterans using less common modalities like biofeedback, hypnosis, and homeopathy makes it difficult to characterize these users.

In spite of these limitations, our findings deepen our understanding of how various CAM modalities are associated with the characteristics of individual users. In recent years, the VA has increasingly emphasized the adoption of CAM modalities and an enhanced partnership with the National Center for Complementary and Integrative Health (NCCIH Council Working Group, 2015). The present findings could lead to more strategic integration of CAM programming into the healthcare systems that already exist for veterans. For example, a number of studies have demonstrated the effectiveness of yoga and meditation for treating some physical (e.g., Groessl et al., 2012) and mental health conditions (e.g., Bormann et al.,

2013). This evidence base should inform expansion of CAM modalities offered within the VA Healthcare system. Further, our findings suggest that considering the use of each CAM modality separately has merit for future research with military and civilian populations, allowing us much greater understanding of the profiles of users of distinct CAM modalities.

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Highlights

- Patterns of correlates (e.g., health status, stress) varied for each CAM modality.
- Women reported higher rates of CAM use for nearly all modalities.
- Sexual harassment predicted distinct patterns of CAM use from physical injuries.
- Poorer mental and physical health predicted the use of many CAM modalities.
- We conclude that each CAM modality must be considered individually.

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Table 1

Demographic Characteristics

Gender	n (%)	
	Female	Male
	243 (33.3)	486 (66.7)
Education	BA	< BA
	282 (38.7)	446 (61.3)
Household income	\$75,000	< \$75,000
	165 (22.9)	556 (77.1)
Race	Did not endorse White	Endorsed White
	115 (16.8)	571 (83.2)
Age	Median	Range
	31.8	21-67

Table 2

Deployment Characteristics

	Median	Range
Months Deployed	15	2 - 248
Years since Military Separation	2.4	0 - 12
Number of Deployments	2	0 - 27
General Military Harassment	14	8-32
Military Sexual Harassment	8	8-32
Combat Exposure	15	0 - 85
Injuries During Deployment	N (%)	
0	342 (47.0)	
1	161 (22.2)	
2-3	131 (18.0)	
4	93 (12.8)	
Deployment Location		
Iraq	540 (78.3)	
Afghanistan	270 (42.1)	
Surrounding Waters/Other	220 (34.7)	
Qatar	65 (11.0)	
Turkey	24 (4.1)	
Military Branch		
Army	442 (60.6)	
Marine Corps	102 (14.0)	
Air Force	98 (13.4)	
Navy	87 (11.9)	

Table 3

Health Characteristics

Life Stress	Median	Range
	6	0-16
Self-Rated Physical Health	Excellent, Very Good, Good (%)	Fair, Poor (%)
Self-Rated Mental Health	Better (7-10) (%)	Worse (2-6) (%)
Treatment for Mental Health or substance abuse	At Non-VA Provider (%)	At VA or Vet Center Only (%)
	57 (22)	198 (78)

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Table 4

Prevalence of CAM use in last 12 months (N=729)

CAM Modality	Yes (N)	Yes (%)
<i>Any CAM service</i>	295	40.5%
Massage	153	21.0%
Chiropractic	116	15.9%
Yoga	92	12.6%
Acupuncture	64	8.8%
Traditional	28	3.8%
Biofeedback	25	3.4%
Hypnosis	7	1.0%
<i>Any CAM product</i>	140	19.2%
Nutritional	78	10.7%
Herbal	54	7.4%
Homeopathy	25	3.4%
<i>Meditation/spiritual prayer</i>	138	18.9%
Spiritual Prayer	91	12.5%
Meditation	77	10.6%

Table 5
Socio-demographic characteristics as predictors of CAM use in last 12 months

	Gender (Female vs. Male)		Education (BA vs. < BA)		Annual Household Income (75K vs. < 75K)		Race/ethnicity (Did not endorse White vs. Endorsed White)		Age (median vs. < median [*])	
	RR ¹	95% CI ²	RR	95% CI	RR	95% CI	RR	95% CI	RR	95% CI
<i>Any CAM service</i>	1.42³	1.20 - 1.69	1.13	0.95 - 1.35	1.09	0.89 - 1.33	0.91	0.71 - 1.18	0.97	0.81 - 1.15
Chiropractic	1.14	0.81 - 1.61	0.96	0.68 - 1.36	1.14	0.78 - 1.68	0.82	0.50 - 1.34	0.90	0.64 - 1.26
Acupuncture	2.28	1.43 - 3.63	1.08	0.67 - 1.74	0.94	0.53 - 1.65	0.97	0.49 - 1.92	1.13	0.71 - 1.81
Massage	1.52	1.15 - 2.01	1.40	1.06 - 1.85	1.23	0.90 - 1.69	1.16	0.81 - 1.66	1.15	0.87 - 1.52
Yoga	2.36	1.61 - 3.45	1.38	0.95 - 2.03	1.74	1.17 - 2.58	0.98	0.59 - 1.65	1.19	0.81 - 1.74
Biofeedback	0.78	0.33 - 1.84	1.45	0.67 - 3.14	1.38	0.58 - 3.26	NA [*]	NA	1.08	0.50 - 2.33
Hypnosis	5.02	0.98 -25.69	0.63	0.12 - 3.23	0.56	0.07 - 4.61	0.82	0.09 - 6.73	1.33	0.30 - 5.92
Traditional	0.95	0.44 - 2.07	1.58	0.77 - 3.27	1.69	0.77 - 3.68	0.61	0.19 - 2.00	1.32	0.64 - 2.76
<i>Any CAM product</i>	1.14	0.84 - 1.56	1.15	0.85 - 1.55	1.08	0.77 - 1.53	1.23	0.84 - 1.80	1.53	1.13 - 2.09
Nutritional	0.95	0.60 - 1.49	0.84	0.54 - 1.30	1.26	0.78 - 2.01	1.25	0.74 - 2.13	1.29	0.85 - 1.97
Herbal	1.61	0.97 - 2.69	1.46	0.88 - 2.44	0.96	0.52 - 1.77	1.48	0.80 - 2.73	1.57	0.93 - 2.66
Homeopathy	0.78	0.33 - 1.84	1.70	0.79 - 3.68	1.06	0.43 - 2.60	0.58	0.14 - 2.47	5.22	1.81 - 15.06
<i>Meditation/spiritual prayer</i>	2.02	1.50 - 2.72	1.29	0.96 - 1.75	1.03	0.72 - 1.47	2.42	1.79 - 3.23	1.51	1.11 - 2.05
Meditation	1.86	1.22 - 2.83	1.01	0.65 - 1.55	1.22	0.76 - 1.98	1.87	1.17 - 3.01	1.20	0.78 - 1.83
Spiritual Prayer	2.25	1.53 - 3.29	1.35	0.92 - 1.99	0.82	0.51 - 1.34	3.47	2.38 - 5.05	2.03	1.34 - 3.06

¹RR = Relative Risk

²CI = Confidence Interval

³95% C in bold do not include 1.0

^{*} Median age= 31.8

Table 6
Deployment experiences as predictors of CAM use in last 12 months

	General Military Harassment (median vs. < median)		Military Sexual Harassment (median vs. < median)		Combat Exposures (median vs. < median)		Deployment Injuries (1, 2-3, 4 vs. 0)		Months deployed (> median vs. median)	
	RR ¹	95% CI ²	RR	95% CI	RR	95% CI	RR	95% CI	RR	95% CI
<i>Any CAM service</i>										
Chiropractic	0.91	0.76 - 1.08	1.28³	1.08 - 1.52	1.06	0.89 - 1.27	1.12	1.04 - 1.21	0.95	0.80 - 1.13
Acupuncture	0.81	0.58 - 1.12	0.99	0.70 - 1.41	0.92	0.66 - 1.29	1.18	1.02 - 1.36	0.85	0.60 - 1.18
Massage	1.34	0.82 - 2.18	1.45	0.90 - 2.33	0.87	0.55 - 1.39	1.18	0.98 - 1.43	0.90	0.56 - 1.44
Yoga	0.72	0.55 - 0.96	1.27	0.95 - 1.68	0.90	0.68 - 1.20	1.12	0.99 - 1.27	0.92	0.69 - 1.22
Biofeedback	1.02	0.69 - 1.50	1.97	1.35 - 2.88	1.19	0.81 - 1.74	1.14	0.97 - 1.35	0.91	0.62 - 1.33
Hypnosis	0.70	0.32 - 1.50	1.21	0.55 - 2.65	1.48	0.68 - 3.26	1.25	0.89 - 1.74	0.77	0.35 - 1.69
Traditional	1.87	0.37 - 9.58	2.42	0.55 - 10.71	1.32	0.30 - 5.85	1.99	1.11 - 3.58	0.87	0.20 - 3.88
<i>Any CAM product</i>	1.58	0.73 - 3.45	1.58	0.76 - 3.26	0.99	0.48 - 2.04	1.19	0.84 - 1.69	1.01	0.49 - 2.10
Nutritional	0.97	0.72 - 1.31	1.21	0.90 - 1.64	1.04	0.77 - 1.40	1.14	1.00 - 1.29	0.87	0.64 - 1.17
Herbal	0.97	0.64 - 1.48	0.91	0.58 - 1.42	1.09	0.72 - 1.66	1.20	1.01 - 1.44	0.80	0.52 - 1.23
Herbal	1.09	0.65 - 1.84	1.68	1.01 - 2.81	1.23	0.74 - 2.07	1.15	0.92 - 1.43	0.79	0.47 - 1.34
Homeopathy	0.69	0.32 - 1.49	0.86	0.38 - 1.96	1.07	0.49 - 2.30	0.99	0.70 - 1.41	1.26	0.58 - 2.71
<i>Meditation/spiritual prayer</i>	1.00	0.74 - 1.36	1.85	1.37 - 2.49	0.85	0.63 - 1.15	1.01	0.88 - 1.16	1.20	0.89 - 1.62
Meditation	1.18	0.76 - 1.81	1.88	1.23 - 2.85	0.86	0.56 - 1.32	1.17	0.97 - 1.41	1.02	0.67 - 1.56
Spiritual Prayer	0.95	0.65 - 1.40	2.08	1.41 - 3.05	0.88	0.60 - 1.30	0.85	0.70 - 1.04	1.30	0.88 - 1.91

¹RR = Relative Risk

²CI = Confidence Interval

³95% CI in bold do not include 1.0

Current mental and physical health as predictors of CAM use in the last 12 months

Table 7

	Self-rated health (Excellent, Very Good, Good vs. Fair, Poor)		Self-rated mental health (Better vs. Worse)		Life stress () median vs. < median)	
	RR ¹	95% CI ²	RR	95% CI ²	RR	95% CI
<i>Any CAM service</i>	0.78	0.65 - 0.93³	0.95	0.80 - 1.14	1.14	0.96 - 1.36
Chiropractic	0.76	0.54 - 1.08	0.98	0.70 - 1.38	0.97	0.69 - 1.35
Acupuncture	0.59	0.37 - 0.94	0.63	0.40 - 1.01	1.73	1.06 - 2.81
Massage	0.86	0.63 - 1.15	0.98	0.74 - 1.31	1.05	0.79 - 1.39
Yoga	0.70	0.47 - 1.03	0.92	0.62 - 1.35	0.95	0.65 - 1.39
Biofeedback	1.04	0.44 - 2.45	0.62	0.29 - 1.33	1.32	0.61 - 2.86
Hypnosis	0.16	0.03 - 0.82	0.27	0.05 - 1.38	2.6	0.51 - 13.31
Traditional	0.86	0.39 - 1.86	0.67	0.32 - 1.38	3.11	1.34 - 7.23
<i>Any CAM product</i>	0.61	0.45 - 0.81	0.82	0.61 - 1.11	1.30	0.96 - 1.76
Nutritional	0.45	0.30 - 0.68	0.67	0.44 - 1.02	1.34	0.88 - 2.05
Herbal	0.68	0.40 - 1.16	0.98	0.58 - 1.64	1.51	0.89 - 2.54
Homeopathy	1.04	0.44 - 2.45	0.86	0.39 - 1.89	0.95	0.44 - 2.06
<i>Meditation OR spiritual prayer</i>	0.63	0.46 - 0.85	0.60	0.45 - 0.81	1.51	1.11 - 2.06
Meditation	0.66	0.43 - 1.02	0.53	0.35 - 0.81	1.62	1.05 - 2.49
Spiritual Prayer	0.54	0.37 - 0.79	0.55	0.38 - 0.81	1.74	1.17 - 2.59

¹RR = Relative Risk

²CI = Confidence Interval

³95% CI in bold do not include 1.0