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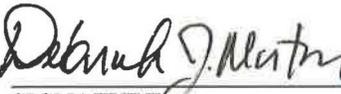
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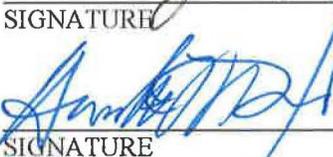
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Running Head: FEASIBILITY OF STUDENT VETERAN YOGA

Yoga for Student Veterans at a Higher Education Institution – A Feasibility Study

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### Abstract

There is an increased need to support US military service members' and veterans' considering the increased prevalence of mental disorders, such as post-traumatic stress disorder and depression. There is also a need to support veterans seeking higher education opportunities through the Post-9/11 GI Bill. The proposed intervention sought to support student veterans' mental health and academic success at a higher education institution through a 6-week yoga intervention. A total of 5 male student veterans and 4 female student veterans were recruited. Military service included the US Navy and US Marine Corp. Quantitative results were derived from participants' responses on the Depression, Anxiety, Stress Scale (42 item; DASS-42) before beginning the program and after. One-on-one interviews were conducted to provide qualitative feedback about the benefits and weaknesses of the program. There was no statistical difference in DASS-42 total or subscale scores, but participants indicated they learned to breathe and relax more after the program, compared to before. They iterated they were less stressed or worried during class and immediately following class. Participants recommended future programs should maintain small class sizes to build rapport between the students and teacher. Future programs should focus on marketing strategies to appeal and retain more student veterans. The yoga program qualitatively indicates a support system for student veterans at a higher education institution, a place where more support is needed.

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## **Chapter 1: Introduction**

An alarming number of veterans, and active duty service members, are diagnosed with varying mental health disorders in the U.S. Interventions specifically tailored for veterans can focus on the underlying mentalities learned during service. The traumas endured during service can be drastically different than those among the civilian population. Thus, there is a need to support veterans and active duty service members, separate from the general population. Additionally, as a growing number of veterans seek higher education opportunities through the Post-9/11 GI Bill, the college settings may present an opportunity to promote health and wellbeing among student veterans – an area of research where there is little information to date.

The goal of the thesis was to determine the feasibility of offering a yoga program specifically for student veterans at a higher education institution. The following chapter will include an overview of the most relevant literature surrounding veterans' mental health, mental health treatments, and the significance of yoga. There will also be a brief introduction to the Post-9/11 GI Bill, and student veterans' help-seeking behaviors at college campuses. The chapter will conclude with the goal and aims of the specific thesis, as each relates to the literature reviewed.

### **Veterans' Mental Health**

The number of veterans and active duty members affected by mental health issues continues to increase, years after the conflicts in Afghanistan and Iraq began. Currently, there are estimates of over half a million veterans living with post-traumatic stress disorder (Magruder et al., 2004). The prevalence of veterans experiencing other types of mental health disorders, such as anxiety and depression, are estimated to be approximately one-third of veterans seeking care and enrolled in the Veterans' Administration (Seal et al., 2009). Research conducted within Veterans' Administration system indicates there is a greater association of mental health comorbidity issues with PTSD (Magruder et al., 2004). Therefore, PTSD risks and prevalence will be the focus to illustrate the importance of mental health among active duty service members and veterans.

There are an estimated half a million veterans living with PTSD (Magruder et al., 2004). The estimate is a combination of all veterans from the wars following diagnostic standards set by the Diagnostic and Statistical Manual of Mental Disorders (DSM) in 1980 (Magruder & Yeager, 2009). Several studies examined risk factors for developing PTSD post-active military service (Hall, Elhai, Grubaugh, Tuerk, & Magruder, 2012; Jakupcak & Varra, 2011; Magruder & Yeager, 2009; Magruder, et al., 2004). The risk for developing PTSD if a service member was deployed during Operation Iraqi Freedom or Operation Enduring Freedom (OEF/OIF) is 1.53 times greater than the general civilian population (Magruder & Yeager, 2009). Ethnic minority status and younger age are also factors associated with a greater risk for men to develop PTSD (Hall, Elhai, Grubaugh, Tuerk, & Magruder, 2012). Service women and veteran women are more likely to experience PTSD post-deployment if they experienced childhood sexual abuse, adult sexual assault, or physical assault without a weapon (Hall, Elhai, Grubaugh, Tuerk, & Magruder, 2012). Service members and veterans who experienced war zone combat are also more likely to experience PTSD, post-deployment (Magruder et al., 2004). Among service members and veterans who report or screen positive for PTSD, they are four times likely to report suicidal ideation, compared to non-PTSD military counterparts. Deployment duration may increase suicide risk due to the compounded stresses and experiences of deployments (Phillips, LeardMann, Vyas, Crum-Cianflone, & White, 2017). Suicide risk among OEF/OIF veterans is higher than the general population, including those with a diagnosed mental health disorder (Kang et al., 2015). PTSD is only one mental health disorder, but can vastly influence service members' and veterans' health because of how the disorder manifests.

Understanding the diagnoses, and related health influences can provide insight into treatment among the veteran population. The DSM-V defines post-traumatic disorder as a disorder that develops in people who have experienced a shocking, scary or traumatic event (National Institute of Mental Health, 2016). There are four classifications of symptom type and individuals must exhibit a certain number of each classification to be diagnosed with PTSD (National Institute of Mental Health, 2016). The reported numbers of PTSD cases are those who sought care, but there could be numerous not seeking care. Among active-duty service members, 41% were uncomfortable seeking care, and 40% believed seeking care or services would harm

their career (Blue Star Families, 2016). Thus, there could be more individuals suffering from PTSD, or experiencing sub-threshold PTSD. Sub-threshold PTSD is typically defined as having meaningful PTSD symptoms, but not meeting diagnostic criteria (Grubaugh et al., 2005). Veterans experiencing sub-threshold PTSD are less likely to seek or utilize mental health services (Grubaugh et al., 2005). Combining stigma factors and sub-threshold experiences, there could be a vast array of veterans not being treated or seeking treatment for PTSD.

### **Mental Health Treatments**

There are currently several types of therapies and treatments for PTSD and trauma, including complementary and alternative medicine (CAM) therapies (Schnurr & Friedman, 2008; Metcalf, et al., 2016). The US Department of Veterans' Affairs currently employs several psychotherapy and pharmacotherapy treatments, based upon prior literature and randomized controlled trials (Schnurr & Friedman, 2008). The psychological treatments commonly employed are cognitive-behavioral treatments, including eye movement desensitization and reprocessing, and cognitive processing therapy (Schnurr & Friedman, 2008). Pharmacotherapy treatments for PTSD include antidepressants, such as selective serotonin reuptake inhibitors, antiadrenergic agents, benzodiazepines and mood stabilizers (Schnurr & Friedman, 2008). Although pharmacotherapy treatments are used to treat PTSD and trauma-related mental diagnoses, cognitive behavioral therapy trials are proven to be more effective (Schnurr & Friedman, 2008) thus leading the way to exploring other psychotherapy treatments, including CAM therapies.

Further elucidating the benefits of CAM therapies, one systematic review previously analyzed studies involving acceptance and commitment therapy, and fifteen other emerging CAM therapies (Metcalf, et al., 2016). The review concluded acupuncture, emotional freedom technique (EFT), mindfulness-based meditation (MBM) and yoga had moderate evidence for their relative effect on PTSD severity within their respective study (Metcalf et al., 2016). The common qualities of the therapies, including mind-body philosophies, not directly addressing cognition or emotions, and no talk therapy, could explain why these treatments were the most effective but not how (Metcalf et al., 2016). The mechanisms for each therapy still remain to be

determined, although researchers continue to speculate. Therefore, some CAM therapies do have some impact on treating PTSD.

**Yoga Therapy for Mental Health.** A meta-review of several studies researching the effects of yoga as a treatment for anxiety, depression, PTSD and other effects of trauma summarize yoga “as an acceptable, feasible, practical, and low-risk intervention for individuals with PTSD, depression, and anxiety” (Macy, Jones, Graham, & Roach, 2016). The authors conclusion is yoga should only be used as a complementary therapy, as there was not enough evidence to support yoga as a primary treatment. Yoga is suggested to “enhance and extend the benefit of other treatments” (Macy, Jones, Graham & Roach, 2016), thus supporting yoga therapies could be used as a supplementary intervention.

Another group of studies focus on women with PTSD and the effects of yoga on PTSD, alcohol and drug abuse, as well as self-efficacy and motivation (Mitchell et al., 2014; Reddy, Dick, Gerber, & Mitchell, 2014; Martin, Dick, Scioli-Salter, & Mitchell, 2015). One study’s conclusion is participants in the yoga group had significant decreases of PTSD symptoms, but are not significantly different from control group results, which may have been due to the self-monitoring aspect of the study, as well as the routine nature (Mitchell et al., 2014). Another study’s conclusion, based on the same pilot study, is symptom management is significantly higher in the yoga group, although the alcohol and drug use risk is not significantly different between the yoga and control groups (Reddy, Dick, Gerber, & Mitchell, 2014). Reddy, Dick, Gerber, and Mitchell reiterate previous findings: yoga practice may help to decrease PTSD symptoms (2014). Martin, Dick, Scioli-Salter and Mitchell focus on physical activity, self-efficacy for exercise, and sources of self-regulation with regards to exercise (2015). Although leisure time physical activity did not significantly increase in the yoga group participants, there is a significant decrease in external regulation. The women in the yoga group, possibly, began to shift from external motivators to internal motivators and engage in physical activity. The results could imply women suffering from PTSD who also practice yoga may discover internal reasons as to why they should continue practicing, which may help symptom management.

Currently, yoga is an expanding treatment for multiple populations, including active duty service members, and veterans, because yoga promotes mental health stability, and overall

wellness (Macy, et al., 2015). Current studies focus on older populations or combat time before 9/11 when evaluating the effectiveness of yoga as a preventative treatment for PTSD, and depression amongst active military members, and veterans (Libby, Reddy, Pilver, & Desai, 2012; Macy, et al., 2015; Mitchell et al., 2014; Reddy, Dick, Gerber, & Mitchell, 2014; Stankovic, 2011). Some of the studies evaluate yoga as an additional or supplemental therapy to traditional therapies for depression and/or PTSD (Jindani & Khalsa, 2015; Metcalf et al., 2016). Yoga has rarely been evaluated as a preventative therapy for depression or anxiety symptoms.

While yoga may not be a primary treatment for diagnosed depression or anxiety disorders, yoga may help to ease sub-threshold symptoms of depression and/or anxiety in veterans. Individuals in the sub-threshold range may not seek treatment or resources to help them cope with the symptoms they are experiencing because of the stigma associated with mental health disorders. Introducing yoga as an alternative therapy may appeal to individuals who view mental health treatment negatively because yoga is not a traditional or primary treatment to mental health disorders. Also, yoga is becoming more popular in the Western population as a way to stay healthy, limber, and relaxed. Yoga can be an alternative treatment method to learn positive, mobile coping strategies for daily stressors, or maintaining a healthy mentality.

### **Post-9/11 GI Bill & Mental Health**

The student veteran population is continuously growing, as can be seen by the increasing number of individuals using the Post-9/11 GI Bill (34,393 in 2009 to 715,527 individuals in 2012) (Niv & Bennett, 2017). The transition period from military life to secondary education can be fraught with feelings of underprepared-ness, and social inadequacies (Gregg, Howell, & Shordike, 2016). Military experiences have an influence on an individual's abilities to relate to their student peers (Gregg, Howell, & Shordike, 2016), or perceptions of succeeding academically. Some veterans have expressed feelings of alienation, due to a professor's rhetoric or other classroom experiences (Elliot, Gonzalez, & Larsen, 2011). These perceived hindrances and experiences could negatively affect a student veteran's mental health.

Mental illness at postsecondary education institutions is a growing concern in public health. Approximately a third of college students have a mental disorder, but only a third of those

individuals receive counseling or medication (Fortney, et al., 2017). In conjunction, about one third of student veterans have a probable need for mental health treatment (Currier, McDermott, & Sims, 2016). The transition from military life to postsecondary education can aggravate mental illness symptoms because student veterans must handle stress from school, as well as reintegration stresses (Fortney, et al., 2017; Fortney, et al., 2016). A 2016 study analyzing the prevalence of mental illness between veteran and non-veteran community students, conclude anxiety disorders, post-traumatic stress disorder (PTSD), suicide intent, and suicide ideation prevalence is higher among student veterans. More importantly, the proportion of student veterans who screened positive is “substantially higher than the proportion screening positive in general samples of Operation Enduring Freedom, Operation Iraqi Freedom, and Operation New Dawn veterans” (Fortney, et al, 2016). These conclusions demonstrate how student veterans can be more susceptible to mental illnesses than the general student or general veteran population.

**Student Veterans’ Help-seeking Behaviors.** The prevalence of mental illness among student veterans is only one part to understanding how to best serve the student veteran population at postsecondary education institutions. Analyzing help-seeking behaviors illuminate the best methods for intervention. Previous studies identify student veterans are less likely to seek help from traditional medical sources compared to non-veteran students (Currier, McDermott, & Sims, 2016; Fortney, et al., 2016). Other sources of help sought during emotional or mental distress include a religious contact, family member, significant other, friend or university staff member. Compared to nonveteran students, veteran students are more likely to seek help from a religious source, and less likely to seek out friends or family members (Currier, McDermott, & Sims, 2016). But within a sample of student veterans, individuals are more likely to seek help from a partner or spouse (Currier, Deiss, & McDermott, 2017). Student veterans with a probable need for depression, or PTSD treatment are less likely to seek help from formal or informal sources compared to nonveteran students with a probable need for treatment (Currier, McDermott, & Sims 2016). The student veterans who could benefit the most from any type of help are the least likely to seek help or utilize the relationships within their community, which aligns with avoidance and isolation behaviors indicative of depression and other mental illnesses (Currier, McDermott, & Sims, 2016; Currier, Deiss, & McDermott, 2017). Cumulatively, the

data provided suggests how postsecondary institutions could best support the student veteran population in their academic careers.

### **Establishing the Gap**

Currently, there are yoga programs offered on university campuses and city veterans' centers, separately. The focus of this current project was to integrate the two characteristics, student and veteran, to create a more inclusive, and supportive environment for student veterans. The average age of the participants could be younger, and more recently discharged veterans may have been deployed during the most recent US military operations. Veterans could be returning to school to obtain other civilian job opportunities. According to the Post-9/11 GI Bill, active duty and discharged servicemen and women receive financial support for educational opportunities (Department of Veterans' Affairs, 2012). Thus, veterans and active duty service members are financially supported but there is a potential gap in supporting them as students, emotionally, and mentally (Currier, McDermott, & Sims, 2016; Fortney, et al., 2016; Fortney, et al., 2017; Macy, et al., 2015; Mitchell et al., 2014; Reddy, Dick, Gerber, & Mitchell, 2014; Stankovic, 2011). There is a possibility yoga can address this gap by introducing positive, mobile coping mechanisms to daily stressors, or simply by providing time away from other responsibilities.

The goal of the current project is to evaluate the implementation and effectiveness of a yoga program for veterans located on a university campus. The primary objectives are:

1. To evaluate the impact of a yoga intervention for student veterans at CSUSM
2. To evaluate participant scores in the Depression, Anxiety, Stress Scale at baseline, week 6

The focus of the intervention is to determine feasibility, not necessarily provide treatment for depression or anxiety.

## **Chapter 2: Methods**

### **Subject Criteria**

To be included in the study, participants had to be military veterans of any branch and current higher-education students at a 4-year university/college or a 2-year college. Participants had to be aged 18-55, male or female. Student status included full-time and part-time. Participants were any race or ethnicity, and fluent in English.

Participants were excluded if they had a regular yoga practice, classified as attending a yoga class 1-2 times a week for 3 months within the past 4 months. Participants were asked to not attend outside yoga classes during the duration of the study, including, but not limited to, classes offered through CSUSM Recreation or Physical Education Department, San Marcos Veterans' Affairs, or any North County yoga studio.

### **Recruitment**

Participants were recruited through Energy System Technology Evaluation Program (ESTEP) within Veterans' Services at CSUSM, and through flyers posted on campus. The ESTEP staff conveyed the resources and qualifications of the study to student veterans. Two different flyers were displayed at the Veterans' Center, and at all public poster boards on CSUSM's campus. The researcher was available to answer any and all questions posed by interested parties via person, phone, text, or email. Flyers and communication templates are included in Appendix A.

### **Intervention Design**

The yoga intervention was a time-series, non-experimental intervention. Initially, the participants were required to attend 12 weeks of yoga program. During the first enrollment period in the summer semester, there were not enough participants enrolled. The researcher then established a second enrollment period at the beginning of the fall semester and required participants attend 6 weeks of yoga. The change in protocol will be further discussed in the results and discussion sections, as there were many factors influencing the researcher's decision.

The study was approved by the CSUSM Institutional Review Board.

**Yoga Class Structure.** Yoga classes were in the hatha-vinyasa style, and focused on coordinating movement to breath (Appendix E). The researcher is a certified and registered yoga instructor, recognized by the nationwide alliance, Yoga Alliance, as RYT-200, certifying a basic level of instruction. The instructor based her cues and class instruction on the trauma-conscious yoga training offered by Connected Warriors ®. Connected Warriors ® offers training and continuing education credits for yoga instructors in trauma-conscious yoga instruction specifically with active military or veteran population. While the instructor did not teach strictly adhere to or was endorsed by Connected Warriors ®, the researcher/instructor did: not use Sanskrit terms for poses, not play background music, and allow participants to set up their mats and the orientation of the room.

Classes were offered 3 times a week, on 3 different days. Class times changed from the summer semester to fall semester. During the summer semester, classes were held at the Veterans' Center outdoors deck. During the fall semester, the classes were held at the Veterans' Center outdoors deck or in a classroom on CSUSM's campus.

Participants were given a free yoga mat, provided by Gaiam's Give Back Yoga Foundation, upon completion of the program and a semi-structured qualitative interview (Appendix D).

### **Data Collection**

Surveys were administered before the first yoga class (baseline), and at 6 weeks, and at 12 weeks, first participant cohort only. For the duration of their participation, participants maintained a "Yoga Practice" journal to note subjective feelings or thoughts they have before, during or after a yoga class. The journals, and the contents contained therein, only pertain to the yoga classes offered through the study. The researcher provided all materials. Qualitative interviews were conducted within one week of a participant's last yoga class. The interviews were conducted in a private area on campus, or wherever the participant felt comfortable to answer personal questions.

Informed consent and a waiver form were administered before the participant's first yoga class. Informed consent was verbally reviewed with the researcher and the participant. Review

was done in person, face-to-face, and in groups or private sessions, based upon time constraints and participant preference. Participants were informed all information was confidential. Participants had 1-7 days to withdraw from the study before beginning classes. Participants could withdraw at any time, without penalty.

**Survey and Measures.** Participants completed a baseline survey before starting any yoga classes. The baseline survey screened for participant eligibility, as well as health background. The survey included the Depression, Anxiety, Stress Scale -42 (DASS-42). The DASS is a Likert Scale survey, measuring perceptions of depression, anxiety and stress sensations over the prior week's period. The scale was developed by the Psychology Foundation of Australia and scoring for the scale can be found at <http://www2.psy.unsw.edu.au/dass/>.

The intake survey also included the following variables: student status, age, gender, race/ethnicity, employment status, income, marital status, living status, sleep, prior mental health diagnoses, and military service (Appendix B). Military service questions included branch of service, number of deployments, time deployed (in months), and service in Operation Iraqi Freedom and/or Operation Enduring Freedom. The follow-up survey consisted only of the DASS-42 (Appendix C).

**Safeguards.** Participants were informed they could skip any question they did not feel comfortable answering in the survey, or in the interview. Participants were informed they could skip any part of the yoga class they did not feel comfortable participating in. Participants were directed to counseling or social support services, as applicable.

Informed consent and waiver forms were stored in a locked box, in a locked room within the researcher's home. Journals and journal materials were stored in a separate, locked and transportable box, and were only opened after a scheduled yoga class. Any data stored on the researcher's laptop was password-protected.

Pseudonyms are used to protect the participants' identity throughout the results and discussion section, as applicable.

## **Data Analysis**

DASS-42 scores were summated, and averaged by subscale and total score, at baseline and at 6 weeks and/or 12 weeks. Mean distribution scores were analyzed by participant demographics. Participant demographics were determined through frequency and distribution analyses. All statistical analyses were completed through SPSS, licensing through CSUSM.

The qualitative interviews were recorded and transcribed. The transcriptions were coded using Atlas.ti, licensing through CSUSM. Interviews were coded into the code groups and codes displayed in Table 2. The quotations were summated by analyzing codes within the code groups.

## Chapter 3: Results

### Participant Demographics

A total of 9 participants (n = 5 men; n = 4 women) completed the 6-week portion of the study (Table 1). Participant ages ranged from 25 years old to 36 years old ( $x = 28.56$  years). Most identified as single (n=5), and the others identified as either married or living with partner (n=4). Most had at least one child under 18 years old living in the household (n=5). Every participant lived with at least one other adult in the household while most lived with 2 to 4 other adults (n=7). The majority of participants rented property (n=7), which included a house, apartment, townhouse, condo or trailer. Nearly all participants were employed full-time, part-time, seasonally or self-employed (n=8); one identified as a student only.

Eight participants were undergraduates. One participant was not a student, but works very closely with student veterans at CSUSM, and is a veteran; therefore, this individual is included in the analysis. The college year classification ranged from Sophomore to Senior (n=1; n=4; n=3).

All 9 participants served in the US Military; 2 were in the Navy and 7 in the Marines. The entire sample (n = 9) was not active-duty and therefore considered veterans. The amount of years served ranged from 4 to 8.8 years ( $x=6.72$  years). There were 7 who deployed to Afghanistan (OEF), or both OIF (Iraq) and OEF, or another not specified conflict. Deployments ranged from 1 to 3 times, and 7 to 24 months ( $x=13$  months).

A more detailed baseline demographics table is not provided in the present study to avoid potentially exposing participants' identities. The tight-knit veteran community coupled with the limited number of participants would otherwise place participants at great risk of identification.

### Health Indicators and DASS Scores

The average hours of sleep a night was 6.31 hours {3.5 hours, 8 hours}. There were 5 participants who indicated they had practiced yoga before, but not enough to warrant exclusion from the study. Three participants indicated a previous depression diagnosis, and 2 stated a

previous anxiety diagnosis. Current treatment status is withheld from the results of this study to protect the participants' privacy.

The average scores for the DASS and subscales are presented in Table 2. Dependent t-test were used to compare baseline and 6-week scores (Table 2;  $\alpha > 0.05$ ). No significant differences in scale scores were observed between baseline and 6-weeks into the intervention.

### **Program Feedback**

Interviews were conducted as indicated in the Chapter 2, and according to the guide in Appendix D. Sixteen codes were developed, categorized into 4 themes: Advantages, Barriers, Yoga Practice, and Areas to Improve (Table 3).

**Advantages.** Participant responses regarding what they liked about the program ranged from learning something to how the classes were conducted. Some participants specified how they learned to breathe, and take deep breaths. Others stated how they learned to relax, and how relaxing helps them continue through the day. Yoga became a break from school, and a time to calm down, or de-stress.

“I think what I do a lot now is take deep breaths. Throughout the day that has just helped me, you know.” – Student veteran, male

“I’m more relaxed after class and I’m like in a better mood. Sometimes I’m not in a good mood. [...] Sometimes I’m stressing or stuff like that and that like hour, just to let it go, kind of makes my day. Like I’m more productive, I think, afterwards because I have a better mindset.” – Student veteran, female

“There are those days when I have homework, but in order to get through homework better, I need to be in a better headspace. So being able to go and just have an hour and not having to deal with academics.” – Student veteran, male

Some student veterans were sensitive to loud, abrupt noises. Yoga class removed them from the center of campus and classes. One student veteran believed it was more important to remove themselves, briefly, than pushing themselves in school work.

“Not having to deal with loud noises, just getting out there and feeling the wind, that was more important than sitting at the library or at the Vet Center, pounding away at homework.” – Student veteran, male

Participants learned to relax by breathing and taking the time out of the day to do yoga. Some did enjoy the physical aspects of the yoga class, and how the poses could help them with their own physical limitations. Breathing and relaxing were mentioned by multiple participants, and sometimes, within the same conversation.

“I really like the position where I was on my hands, and knees [...] we would alternate putting hand behind the ear and then, like, twisting. I think above all that really helped to open up my back.” – Student veteran, female

“I think how to silence my own thoughts – concentrating on my own breathing. Pushed all the other crap I was thinking about away, so. Thinking about all the stuff I need to do ... during the hour I didn't really think about that stuff. Relax, yeah, relax.” – Student veteran, female

Another enjoyed learning about different ways to stretch without placing bodyweight on the wrist joints. The class flow was different (see Appendix G), but the poses were adjusted to the participant's capabilities and limitations.

“It was important because I tore all the cartilage out of my wrist, so the bones within my wrist structure were able to move in ways that they're not originally planned to move. So it was more important for me to figure out different stretching techniques that didn't involve as much body weight as my hands.” – Student veteran, male

Some participants did indicate they liked the yoga class environment. Environment encompasses class location, social atmosphere, and yoga philosophy. Some participants appreciated the convenient class locations on campus, indoors and outdoors. Participants also preferred the social environment created with student veterans. Another indicated they liked the atmosphere created by the instructor before class began.

“I would rather do [yoga] with student vets, just because I have more in common with them.” – Student veteran, female

“I actually liked it because we would talk first, then we actually did [yoga]. Like, we would talk about what was going and stuff like that. And when you started, you just let go of that.” – Student veteran, female

Some participants experienced unexpected consequences because they did not believe yoga could impact them in the ways it had. One participant enjoyed doing yoga at work. They had the opportunity to reflect on their work experiences and relationships, and figure out how to improve them. Another participant discovered they had more confidence in their work and academic capabilities.

“Doing yoga at work was helpful because it kind of just helped put things in its place. It helped me, prompt me, to be honest with [my manager].” – Student veteran, male

“You walking me through the process of a handstand, even though I never accomplished one, was, was kind of like an eye-opener as to what I could accomplish, you know, if I were to try and not set limits for myself... I feel like that kind of confidence has trickled into, like, me thinking about grad school even.” – Student veteran, female

The participant did not anticipate yoga would impact their confidence. Another indicated their outlook and reaction to situations changed after participating in yoga classes. They acknowledged how they might react to an upsetting or stressful situation before the program, and how their reaction has changed since. The participant perceives their difference in reaction drastically different before the program compared to after.

“I was super, super stressed. And I’m like, more now, a person to take a step back, where before if there was an issue or conflict I was the first one to engage in it. And I feel like now just step back and view what’s happening before I get in there.” – Student veteran, male

**Barriers.** As outlined in Table 2, there were 5 categories within the Barriers theme: general dislike, physical limitation, job, school and time. Two participants indicated they do not like yoga or felt they were limited because of their body type. Otherwise, jobs, school or classes, and not having the time to do yoga were the major barriers for participating in the program. For example, one participant indicated the demands of the job prevented attendance:

“Just my job, really, [...] there’s always these unforeseen things that would happen, where like “Oh, well so-and-so is visiting and you have to be there”. Or “this event is taking place and you have to be there”. Or “the vet center is low on people and you need to go support”. So it was the job.” – Student veteran, female

Even if participants planned to attend yoga, and adjusted their schedule to ensure they attended, unexpected events would prevent them from attending.

“Most of the time there’s always something new coming into play. I have a set schedule, but there’s always other things coming in and I think those were just always getting in the way.” – Student veteran, male

Although jobs, and school were specific reasons for not attending classes, time is the overarching barrier. Regardless of the responsibility, there was an overall expression of not having enough time in a day to do everything they wanted to do, planned or not.

“I think nobody has time. [...] Like everyone’s just so busy, like, and they’re trying to do a million different things, but you have to try and find that hour, like every day, to push yourself to work out or do yoga, and that’s kind of what I saw it as.” – Student veteran, female

**Yoga Practice.** Most participants indicated they would continue attending a yoga class or were more inclined to attend a class, and only one indicated they would not because they did not like yoga (Table 3). The likelihood of a participant attending a class aligned with his or her experience of the program. Other participants’ perceptions about wellness and yoga changed, and therefore seemed to increase the likelihood of attending another yoga class.

“At first, I was very apprehensive about coming to yoga, but then after the first session I was really looking forward to it, something I actually liked, and, I don’t know if it’s the placebo effect but I actually felt better getting up in the morning instead of feeling drained and tired.” – Student veteran, male

“[Yoga] needs to be a thing in and of itself. Especially as we get older. As you get older, you can’t power lift, or shouldn’t. And it’s more as the priorities have shifted, listening to my own body. And adding yoga shifted how I look at everything else.” – Student veteran, male

Another participant acknowledged the stigma associated with yoga and veterans, and how the program shifted their own perception. Participants' willingness and likelihood of attending another yoga class, either in a program set up as this proposed thesis or otherwise, is linked to their experiences and perceptions of yoga.

“I think yea, because when you come into yoga there's a whole stigma, like, you know the feminine approach. But once you learn about yoga you're more open, and once you feel the effects, you learn that it's actually healing and it's relaxing. I'll be more open to learning more yoga and learning more about meditation.” – Student veteran, male

**Areas to Improve.** While participants did not directly express what they did not like about the program, they did specify what could be improved. Some participants focused on the class environment. A couple of participants noted the outside classes were too hot under the sun, and suggested more indoor classes or more shade (Table 2).

“Like, if it's overcast and the sun's not beating down on you then outside would be great or under a tree, in the shade. [...] Because being outside is nice, hearing the birds chirping, doing yoga and all. It's kind of relaxing. I think indoors would be cool, too. I just like getting out of the heat.” – Student veteran, male

Other participants noted they would include civilian students to build socialization and relationships between civilians and veterans. A combined class would provide an opportunity for civilians and veterans to integrate into the campus and student life.

“I like socialization with people from different parts or different backgrounds. You learn more about them. And then, it's something you like. Here it's like veterans going because of veterans.” – Student veteran, male

“It would be nice to kind of mesh the two worlds, because we're here in this university to kind of step back into the civilian world.” – Student veteran, male

Another noted the veterans' only class would be beneficial to the veterans, and their sense of comfort and ease.

“I also do enjoy the odd 'veterans only' events because, you know, there are things that veterans talk about that don't necessarily need to be discussed around civilians. So it's kind of nice to have that kind of comfort zone.” – Student veteran, male

Others commented on the classes directly. Curriculum, class size, and class times were important to participants. Structuring the class with a curriculum would be important to those who are used to the structure. Increasing the class frequency could expand the benefits described previously. More classes would also create more opportunities for people to attend at a time that worked for their schedule.

“So when we started yoga, and then you would say, ‘Well, what do you want to do today?’ I would never really have an answer. So I guess that’s what I would like. What I liked the least was that I wasn’t prepared to answer those questions [...] I would’ve been more comfortable with curriculum, I guess.” – Student veteran, female

“I would say maybe the frequency of the class. I would like it maybe, like, twice a week, if I had the time. Like, I would love to do yoga twice a week if time allotted, rather than just like once a week. Maybe one to start your week and then one to end your week.” – Student veteran, female

“I like the way you did [yoga classes] this semester to where you had multiple classes throughout the weeks, so, like, everybody could show up at their time.” – Student veteran, female

It is important to create a comfortable and safe space. Some might feel overwhelmed with too many people in a class, thus keeping class sizes smaller would be beneficial for student veterans.

“Because then you got to get comfortable with everybody around you, and [...] that setting of being relaxed a little bit more and I think with more people, especially with veterans, I don’t think a lot of people like big crowds like that. So smaller, more intimate sessions, I think, are more appealing.” – Student veteran, female

Suggestions to improve the program included more classes indoors, more times, and better marketing. One participant suggested the marketing focus on how yoga could be challenging. Appealing to the “macho” military, warrior mindset could also have an effect. But, the challenge or contest should not be unattainable. People should still be able to achieve the goal, if they are given the proper resources to accomplish them.

“How do you make this into the type of challenge that appeals to this population? Because you know they love a challenge.” – Student veteran, male

“Like, call them out, call them a [redacted], and they’re going to show up and prove you wrong.” – Student veteran, male

“It’s got to be a series of challenges that everyone has a chance of winning. Even something as simple as who can hold a series of poses the longest. Is yoga supposed to be a competition? I don’t know, but people tend to arrive for a competition.” – Student veteran, male

Another participant suggested increasing the advertising areas and spaces. The display and reach of the program could affect people’s decision to attend, such as the following participant explains in regards to other events.

“There have been a couple of events that I’ve taken the time to go to just because I saw them in more places than just one. So I think you’ll have a lot better turnout if you have something in all those different avenues.” – Student veteran, male

Every participant did not mention marketing and advertising, but those who did mention it provided suggestions for future programs.

### **Chapter 4: Discussion**

This thesis provided valuable insight to establish a yoga program for student veterans, specifically. University educators and administrators can understand the utility, appeal and effectiveness of yoga to support student veterans' mental health and academic success. The first aim of the study was evaluating the effectiveness of the program, according to participants' perspectives and opinions. As such, the participants expressed multiple advantages to the program, after experiencing yoga for the first time or not. Those who participated in yoga for the first time learned about the physical practice of yoga and how breathing can change their approach to stressful situations. Others who attended yoga classes prior to the program, but did not have a regular practice as defined in the exclusion criteria, also experienced how breathing and relaxation positively affected them. Participants indicated they felt they could approach the rest of their day or responsibilities more calmly than before. Their stress and worries lowered after class. While some participants did not feel their daily outlook changed over the course of the program, they expressed how they felt different before and after class. There was an immediate change in their outlook and demeanor. Their relaxed demeanors and interactions were continuously observed after class sessions, thus indicating the immediate utility and appeal of the program.

Some participants expressed how yoga unexpectedly influenced their life. Some participants felt they could solve their problems in work and school because they took the time out of their day to practice yoga. Participants continuously expressed how they could attend to their school work better after yoga class. As previously stated, another gained confidence in their academic endeavors. The yoga classes were not structured to focus on anything beyond connecting movement to breath, but participants were able to clear their minds and attend to school or work responsibilities with more vigor than prior to yoga classes.

Hence, there was an unexpected but positive outcome to their experience. While almost all participants expressed experiencing a sense of relaxation, relaxation was unexpected because they assumed yoga would impact them differently. Regardless, they continually expressed how less stressed they felt after class. The yoga classes helped these participants learn something, but perhaps not in the way they may have anticipated.

The second aim of the thesis was evaluating participant Depression, Anxiety, Stress Scale (DASS) scores at baseline and at 6 weeks. Although there were no significant differences in DASS scores, there was a trend towards improvement. Specifically, the stress subscale decreased by 4 points, and approached significance especially if the significance level was 0.1 (Table 1). For this study, significance level was 0.05, but the trend persists. The decrease in perceived stress corresponds to participants' anecdotes, and expressed feelings of lowered stress.

### **Limitations**

There were several limitations in this study. The small sample size is an important limitation to consider for future programs. The recruitment and marketing processes could be improved, as suggested by a few participants. The small sample size limits the statistical significance and impact of the study because there were not enough participants to produce effective statistical power. The low retention rate is another limitation affecting the sample size. Numerous eligible participants were removed from the study because they were unreachable, or withdrew themselves. Marketing strategies and incentives could improve program retention. While there was not a significant decrease in DASS total and subscale scores, there was not a significant increase in scores either. The participants' wellbeing was not harmed during the study.

The timing of the thesis was also a study limitation. The first recruitment round began in the summer semester, when fewer students attend classes on-campus. There were also fewer student veterans, resulting in only 2 participants enrolling in the yoga program. Thus, a second recruitment round began in the fall semester, and more participants enrolled. If recruitment began during the spring semester, even half way through the semester, there may have been more participants.

Another limitation was the short duration of the program. Initially, the program was planned for 12 weeks but the extensive time period would not have coincided with the completion of this thesis. If the program had been 12 weeks, DASS total and subscale scores may have decreased more. Also, a longer program could allow for more participants to enroll and continue through the end of the intended 12-week program.

### **Implications & Recommendations for Future Research**

This thesis provides valuable foundational work for future yoga programs seeking to support student veterans. The participants repeatedly stated how yoga taught them to breathe and relax amid school, and work stressors. The program did increase participants' likelihood to attend a yoga class in the future, either in a setting similar to the current program or otherwise. Also, the Veterans' Services department at CSU San Marcos was continuously engaged during the development and implementation, signifying the importance of connecting with the community when building meaningful, and sustainable programs for the community.

This thesis also adds to current literature about yoga programs for veterans, focusing on a younger age demographic than other programs. While there are a multitude of yoga programs supporting active military and post-9/11 veterans, there were no programs specifically researched or developed for student veterans (Libby, Reddy, Pilver, & Desai, 2012; Macy, et al., 2015; Mitchell et al., 2014; Reddy, Dick, Gerber, & Mitchell, 2014; Stankovic, 2011). This thesis also adds to the literature regarding help-seeking behaviors of student veterans. Since student veterans were less likely to seek help from formal sources (Currier, McDermott, & Sims, 2016; Fortney, et al., 2016), creating and establishing a social support system within the yoga program and/or classes would hopefully encourage student veterans to talk with their peers or partners. The program could be improved to establish if yoga in a higher education setting can effectively support the mental health and academic success of student veterans.

Future programs should invest in marketing strategies. Building the program around a 'yoga competition' may appeal to the veteran population, and to those who view yoga as feminine. The program could also be marketed as stress relieving, or peer engaging. Class sizes should be small to encourage camaraderie, and social support. The instructor can build rapport with smaller classes, as well as encourage introspection and understanding. Some classes or class times could also include civilian students to build relationships between the civilian and veteran student populations. Utilizing the student network established through this program or an initial student veteran yoga program can also increase new participation and retention. Past participants could share their experiences and how the program affected them personally.

A future research project based upon this thesis should also invest in marketing strategies to increase recruitment and improve the retention rate. The research project should also extend the duration of the yoga program, and/or increase the dose required. A longer timeframe could increase the positive effect experienced by the participants of this particular thesis, and improve depression, anxiety, stress scale scores significantly. Future research should also correspond the yoga program to participants' classes and academic performance. If academic performance and stress levels could be proven to improve because of the yoga program, then there would be more evidence indicating how beneficial yoga would be to student veterans at a higher education institution.

### **Conclusion**

Engaging a primary group of individuals to support the program would be necessary for establishing another program, such as this one. Participants' can share their positive experiences, and provide anecdotal evidence destigmatizing yoga within the veteran population. Building upon the natural military environment of camaraderie can bring student veterans together in a place they may feel isolated. A safe, nurturing, supportive environment can build influential relationships between the students and the teacher. Student veterans' mental health and wellbeing can be supported through yoga, as indicated in this study. Yoga can help student veterans integrate to civilian society by teaching them positive, mobile coping mechanisms to various stressors.

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**Table 1:** Participant Demographics

Demographic	Total
Participants	9
Gender	
Male	5
Female	4
Average Age (years)	28.56
Military Branch	
US Navy	2
US Marines	7
Years in Service	6.72
Number of Participants Previously Deployed	7
Number of Deployments (average)	2
Deployment Duration (average in months)	13
Household	
Lived with another adult (18 yo+)	9
Lived with a child (under 18 yo)	5
Employment Status	
Employed, full or part-time	8
Student	8

**Table 2:** Mean DASS total and subscale scores, with dependent t-test results including t-values, degrees of freedom and significance level

Scale	Mean $\pm$ SD		t	df	$\alpha$
	Baseline	6 Week			
DASS Sum	16.29 $\pm$ 12.53	16.00 $\pm$ 17.21	0.060	6	0.954
Depression Subscale	3.22 $\pm$ 3.46	4.33 $\pm$ 5.81	-0.432	8	0.677
Anxiety Subscale	3.13 $\pm$ 2.64	2.63 $\pm$ 3.78	0.306	7	0.769
Stress Subscale	11.63 $\pm$ 9.74	7.50 $\pm$ 7.35	1.774	7	0.119

**Table 3:** Themes and codes evaluating overall program experience

Theme	Code	Quote
Advantages	Breath	"...the parts that were focusing on our breathing and things like that. Get away from the stress, the hustle and bustle, and things that get in the way. Take a second to calm yourself down." – Participant #10
	Relaxation	"I think the most important [thing I learned] for me, was like, to relax, because I don't do much when I'm at school. I haven't found something for me to be able to relax. So for me that was probably the most important thing." – Participant #2
	Physical Aspects	"Because one of the things I felt after doing [yoga] with you is how much I was out of alignment. Like you could feel, "Oh, I'm aligned" and things feel all sorts of off." – Participant #1
	Environment	"Because the class was so small, you were able to like cater to like what, what we wanted to work on that day." – Participant #11
	Perception	"Where before if there was an issue or conflict I was the first one to engage in it. And I feel like now just step back and view what's happening before I get in there." – Student veteran, male
Barriers	General Dislike	"Because I like the high intensity exercises more, for me, I wouldn't consider it as a work out. Yoga, I don't think is my particularly thing." – Participant #12
	Physical Limitation	"Maybe because I'm not as flexible as I should be doing yoga." – Participant #5
	Job	"I think just being a student and the whole time being in work. I think that's the whole issue." – Participant #4
	School	"Just probably the schedule, like class schedules. But, I think that's pretty much it because that's the only reason I didn't do it the other times – because of school." – Participant #13

	Time	“What I didn’t like was more self-inflicted more than anything. Like the schedule is the schedule.” – Participant #1
Yoga Practice	Positive	“Yes, yes I do. I was actually looking into the classes at the gym.” – Participant #13
	More Inclined To (Middle)	“I think I’m more open to it if the opportunities just all super aligned again.” – Participant #2
	Negative	“I don’t, I don’t see me doing it like every week. [...] I just like to go to the gym and that’s my workout time. So I don’t know, maybe here and there, every once in a while but not on a regular basis.” – Participant #5
	Yoga Perception	“I think yea, because when you come into yoga there’s a whole stigma, like you know, the feminine approach. But once you learn about yoga, you’re more open and once you feel the effects you learn that it’s actually healing and it’s relaxing.” – Participant #4
	Prior Yoga Experience	“At first, I was very apprehensive about coming to yoga, but then after the first session I was really looking forward to it.” – Participant #10
Areas to Improve	Environment	“It would have been nice to have a little bit better shade cover.” – Participant #9
	Improvements Needed	“Find a way to market it better. I think that’s what it really breaks down to.” – Participant #1
	Suggestions	“Everybody blends in on just the physical appearance. But I think that would be a good way to do it. Having more events with not only veterans, but civilians too.” – Participant #4

## **Appendix A: Recruitment Materials**

### **Veterans' Services Email:**

Hello students!

We have a new opportunity going on at the Vet Center! Yoga classes! And they will be specifically for you, our student veterans! Come by, ask questions, and get a feel for what will be offered this summer, starting June 5<sup>th</sup>.

All classes will be free, courtesy of the Department of Public Health. Come and learn about yoga and join the fun.

The yoga teacher will be conducting a study to assess the utility of yoga program geared for student veterans on campus. For those of you who are interested in taking the class and helping out with the study, feel free to contact Ramona Prado at [prado014@cougars.csusm.edu](mailto:prado014@cougars.csusm.edu) or 951-805-3011.

You do not have to participate in the study to take the yoga classes. Yoga is open to all student veterans as a service of the heart.

Have a great day

### **Yoga for Student Veterans Posters**

The following three posters were placed at various locations on campus. The first two were used during the summer semester recruitment period, and the third was used for the fall semester recruitment period.

CSUSM and the Veterans' Center with the Department of Public Health

Present

**FREE!**

# YOGA FOR STUDENT VETERANS

JUNE

5.2017

★ Learn about yoga in a safe, engaging environment with other student veterans.

★ Gain flexibility and strength!

★ Help develop a future program!

@ Veterans' center

CSUSM campus

Classes will be taught by Ramona of the Public Health Department. Any Questions, call or text 951-805-3011

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CSUSM

**Veterans' Center**

PRESENT

Dept of Public Health

# YOGA FOR STUDENT VETERANS



Learn about yoga in a safe, engaging environment with other student veterans.



3 Class times!

Monday @ 5:30p

Tuesday @ 9:30a

Wednesday @ 5:30p



Help develop a future program!

Classes will be taught by Ramona of the Public Health Department. Any Questions, call or text 951-805-3011

CSUSM

**Veterans' Center**

PRESENT

Dept of Public Health

# YOGA FOR STUDENT VETERANS



Learn about yoga in a safe, engaging environment with other student veterans.



Free  
Classes

3 Class times!

Monday @ 5:30p

Tuesday @ 11:00a

Friday @ 1p



Help develop a future program!



Follow

@monatherunningyogi

Classes will be taught by Ramona of the Public Health Department. Any Questions, call or text 951-805-3011

FEASIBILITY OF STUDENT VETERAN YOGA

**Appendix B: Consent Form**



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## Yoga For Student Veterans: A Feasibility Study

### Invitation to Participate

Dear student veterans,

My name is Ramona Prado-Olmos and I am a graduate student in the Public Health department at California State University San Marcos. You are invited to participate in a research study to evaluate the effectiveness and usefulness of offering a yoga program for student veterans on a university campus. You were selected as a possible participant because you are a current college student and a veteran of the US Armed Services. Please read this form carefully and ask any questions you may have before agreeing to be in the study. You must be 18 or older to participate in the study.

#### **STUDY PURPOSE:**

The purpose of this study is to determine if a yoga program specifically for student veterans would be useful and beneficial to the student veterans, and the associated university.

#### **NUMBER OF PARTICIPANTS:**

If you agree to participate, you will be one of 20 participants who will be participating in this research.

#### **PROCEDURES FOR THE STUDY:**

If you agree to be in the study, you will do the following:

- Attend at least 1 of 4 yoga classes offered a week, once a week, for 12 weeks.
- Fill out a personal status survey, with your education, military service, and health background.
- Sign a Waiver Form.
- Take an emotions and stress survey before the first class, then at 6 weeks, and before the last class in the 12<sup>th</sup> week.
- Maintain a single sentence journal, which will be provided to you at the end of each yoga class you attend.
- Participate in an interview a week after your final yoga class to provide feedback on the program.
- Yoga classes will be 60 minutes, with an additional 5 minutes allotted for the journal after class.
- Yoga classes will be held at the Veterans' Center on CSUSM campus, or in a classroom in the Welcome Center.
- Interviews will be held at a place and time convenient for the participant.
- The full length of the study will be 13 weeks.

#### **RISKS AND INCONVENIENCES:**

There are minimal risks and inconveniences to participating in this study. These include:

- Injury sustained during yoga class and participation
- Emotional discomfort during yoga class and participation
- Discomfort answering survey or interview questions, or journal keeping.
- Time spent participating in the study
- Breach of confidentiality of participation or personal information, if security protocols are not strictly followed

**SAFEGUARDS:**

To minimize these risks and inconveniences, the following measures will be taken:

- Participants can skip any questions they feel uncomfortable answering while taking the survey or during the interview.
- Participants may skip any part of the yoga class that makes them feel uncomfortable.
- Participants may be directed to a counseling or social support services.
- Surveys, and interviews may be scheduled at a time that is convenient to the participant and at a place that is private.
- All consent forms and waiver forms will be stored in a locked box, in a locked room within the researcher's home.
- All other surveys will be stored in a separate locked box, in a locked room within the researcher's home.
- The journals will be stored in a locked box, which is easily transportable, and will be unlocked only during yoga class.
- Any data stored on the researcher's laptop will be password-protected, and the password will not be shared with anyone other than the research team.
- The data will be retained until the researcher, Ramona, completes the MPH degree.
- All physical data will be shredded, and digital files will be erased at that time.

**CONFIDENTIALITY**

Your responses will be confidential. The results of this study may be used in reports, presentations, or publications but your name will not be used. Pseudonyms will be used to protect your identity in any reports using any of the responses from the interviews. Any photographs taken will be posted to advertise for the program, or a similar program, in the future.

**VOLUNTARY PARTICIPATION:**

Taking part in this study is voluntary. You may choose not to take part or may leave the study at any time. Leaving the study will not result in any penalty. Your decision whether or not to participate in this study will not affect your current or future relations with California State University San Marcos.

**BENEFITS OF TAKING PART IN THE STUDY:**

The benefits of participating in this study are gaining knowledge of yoga, and the mental practice, including but not limited to, added flexibility, and strength.

**ALTERNATIVES TO TAKING PART IN THE STUDY:** If you decide not to participate in this study, you have the option to participate in the yoga classes without the added measures of surveys and questionnaires.

**INCENTIVES FOR PARTICIPATION:**

You will receive a Gaiam yoga mat for taking part in this study, and will be given to you at the end of your interview.

**CONTACT INFORMATION AND SIGNATURES:**

If you have questions about the study, please call me at 951-805-3011 or e-mail me at [prado014@cougars.csusm.edu](mailto:prado014@cougars.csusm.edu). You will be given a copy of this form for your records. If you have any questions about your rights as a participant in this research or if you feel you have been placed at risk, you can contact the IRB Office at [irb@csusm.edu](mailto:irb@csusm.edu) or (760) 750-4029.

**PARTICIPANT’S CONSENT:**

By signing below, you are giving consent to participate in the study.

Please check the option that applies to you before signing:

Yoga class participation:

- I give permission for my participation in the yoga classes to be photographed.
- I do not give permission for my participation in the yoga classes to be photographed

Interview participation:

- I give permission for my interview to be audio recorded.
- I do not give permission for my interview to be audio recorded.

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Print Name

---

Signature

---

Date

**Appendix C: Waiver Form**



# Yoga for Student Veterans Waiver Form

## SECTION I: PERSONAL INFORMATION

\* Name: \_\_\_\_\_

\*Address: \_\_\_\_\_ \*City: \_\_\_\_\_ \*Province: \_\_\_\_\_ \*Postal Code: \_\_\_\_\_

Primary Phone: \_\_\_\_\_ (Cell preferred) \*E-mail: \_\_\_\_\_

\*Emergency Contact Name: \_\_\_\_\_ \*Emergency Contact Phone: \_\_\_\_\_

(\* denotes required fields)

## SECTION II: RISK ASSESSMENT

Heart Disease	YES NO	
Shortness of Breath or Chest Pain	YES NO	Inhaler? YES NO (if "yes", please bring it to every class
High Blood Pressure	YES NO	Levels: _____
High Cholesterol Level	YES NO	
Significant Bone/Joint/Muscle Pain	YES NO	Location: _____
Back Pain	YES NO	
Cigarette Smoking	YES NO	Levels : _____
Abnormal Resting EKG	YES NO	
Diabetes	YES NO	Insulin Dependent? YES NO

Any other? Please explain: \_\_\_\_\_

Are you active? YES NO

Activity or Exercise: \_\_\_\_\_

Times per week: \_\_\_\_\_

Minutes per session: \_\_\_\_\_

Are you currently taking any medication(s)? YES NO Type: \_\_\_\_\_

## SECTION III: AGREEMENT

1. In consideration of participating in a Hatha-vinyasa yoga class, here known as "Activity", I agree and acknowledge that I am fully aware that participation in the Activity involve risks and I accept all the risks of participating, even if the risks are created by the carelessness, negligence or gross negligence of the "Teacher", Ramona Prado-Olmos, or anyone else.

2. "Claims" includes but is not limited to any and all liabilities, claims, demands, legal actions, rights of actions for damages, personal injury or death in connection with participation in the Activity, the Teacher, here known as "Released Party" or any of its affiliates, franchisees and their respective representatives, directors, officers, agents, employees or volunteer staff.

3. I agree and acknowledge that:

a. I am in proper physical condition to participate in the Activity, and am aware that participation could, in some circumstances, result in physical injury, serious physical injury or death.

b. I understand my physical limitations and am sufficiently self-aware to stop physical activity before I become ill or injured.

c. I am aware that if the Activity occurs outdoors, the streets adjoining the area of the Activity are open to regular vehicular traffic during the Activity and I will obey all traffic laws and regulations.

4. I accept full responsibility for any product or technology loaned to me as part of participation in this Activity and commit to return the same in good working order.

5. I hereby, for myself and for my heirs, next of kin, executors, administrators and assigns, fully release, waive and forever discharge any and all rights or Claims I may have, now or in the future, against any Released Party, even if the Claims are based on the carelessness, negligence or gross negligence of a Released Party or anyone else. Without limiting the foregoing, I further release any recourses which I may now or hereafter have resulting from any decision of any Released Party.

6. I agree not to sue any Released Party for Claims, even if the Claims arise from the carelessness, negligence or gross negligence of any Released Party or anyone else. I agree to indemnify (reimburse for any loss) and hold harmless each Released Party from any loss or liability (including any reasonable legal fees they may incur) defending any Claim made by me or anyone making a Claim on my behalf, even if the Claim is alleged to or did result from the carelessness or negligence of any Released Party or anyone else.

7. I am aware that there is no obligation for any person to provide me with medical care during the Activity. I understand and acknowledge that:

a. there may be no aid stations available for the Activity.

b. if medical care is rendered to me, I consent to that care if I am unable to give my consent for any reason at the time the care is rendered.

8. I am aware that it is advisable to consult a physician prior to participating in the Activity. If I have consulted a physician, I have taken the physician's advice.

9. I grant my permission to the Released Party and any transferee or licensee or any of them, to utilize any photographs, motion pictures, videotapes, recordings and other references or records of the Activity which may depict, record or refer to me for any purpose ("Likeness"), including commercial use by the released parties, their sponsors and their licensees. This permission is for use anywhere in the world and on the Internet and for an unlimited period of time. I understand and agree that I will not be compensated or receive additional consideration for consenting to the use of my Likeness and that I will not be given a chance to receive, inspect or approve the promotional or marketing material, messages and/or content that may use my Likeness.

10. No warranties or representations have been made to me about the Activity which are not stated on this form. I understand and intend that this document act as the broadest and most inclusive assumption of risk, waiver, release of liability, agreement not to sue and indemnity.

11. If any provision of this agreement shall be unlawful, void or for any reason unenforceable, then that provision shall be deemed severable from this agreement and shall not affect the validity and enforceability of any remaining provisions.

12. I have fully read and understand this agreement. I am aware that by signing this agreement, I am waiving certain legal rights I or my heirs, next of kin, executors, administrators and assigns may have against the Released Party.

13. I hereby acknowledge that I may be required to use an automobile to travel to and from the Activity or as part of the Activity. I hereby acknowledge that I have the authority to use such automobile and that the automobile is fully insured for use in the Activity. I accept full responsibility for the automobile and that use of the automobile in the Activity will be at my own risk.

I also understand that **(please initial)**;

\_\_\_\_\_ The scheduling and content of activities may be changed on occasion.

\_\_\_\_\_ I will notify instructors immediately of any pain and/or major discomfort felt during any activity.

\_\_\_\_\_ I am responsible for bringing my required equipment to every activity (where applicable).

\_\_\_\_\_ If I am pregnant or plan to become pregnant during course of the Activity, I will submit a ParMED-X for Pregnancy, a guideline for health screening prior to participation in a fitness class.

BY SIGNING BELOW, Participant accepts and agrees to the terms and provisions contained in this agreement.

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date**

To be completed by staff		
Participant ID #:		
Verified by: _____	Waiver	Date: ____/____/____
Entered by: _____		Date: ____/____/____

**Appendix D: Intake Survey**

**To be completed by staff**

Participant ID #: \_\_\_\_\_  
Verified by: \_\_\_\_\_ Survey Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
Entered by: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
DB QC'd by: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

# Yoga For Student Veterans



Yoga for Student Veterans Survey

Feasibility Study  
Section 1

Please take the time to fill out the survey as honestly and completely as possible. If there are any questions, privately ask the coordinator. Thank you.

### **Section A: Education**

1. Are you a current student at CSU San Marcos?      Yes    No
2. If not, what university or community college do you attend?  
\_\_\_\_\_
3. What is your current student status?      Undergraduate      Graduate
4. What is your current major/study focus? \_\_\_\_\_
5. What year of your studies are you in?
  - Freshman
  - Sophomore
  - Junior
  - Senior
  - Graduate

### **Section B: Military**

6. Have you ever served in the United States military?      Yes    No
7. Are you active-duty?      Yes    No
8. What branch of the military are/were you a part of? \_\_\_\_\_
9. How many years have you served (to date)? \_\_\_\_\_ years
10. Were you ever deployed?      Yes    No  
    If no, skip to Section C
11. How many deployments? \_\_\_\_\_
12. What is the total time you were deployed? \_\_\_\_\_ months
13. Were you a part of Operation Iraqi Freedom (OIF) or Operation Enduring Freedom (OEF)? Which one? \_\_\_\_\_

### **Section C: Demographics**

14. What is your date of birth? \_\_\_\_\_ Age? \_\_\_\_\_
15. Are you...?
  - Male
  - Female

- Third Gender/Non-binary
- Prefer Not to Say

16. Are you a natural born US citizen?      Yes    No

17. Which race/ethnicity would you consider yourself? You may choose more than 1.

- White or Caucasian
- Black or African-American
- Hispanic or Latino(a)
- Asian
- Pacific Islander
- Middle Eastern
- Other: \_\_\_\_\_

18. What is your marital status?

- Married, living with spouse
- Married, not living with spouse
- Living together, as married
- Divorced
- Widowed
- Separated
- Single

19. How many children under 18 years of age live in your household? \_\_\_\_\_

20. How many adults (18+ years) live in your household, including you? \_\_\_\_\_

21. Do you...?

- Rent a house
- Rent an apartment/townhouse/condo/trailer
- Own a house
- Own an apartment/townhouse/condo/trailer
- Other (assisted living facility, retirement home, sheltered housing, military housing)

22. What is your zip code? \_\_\_\_\_

23. Are you currently...?

- Employed full-time, 35 hours or more per week
- Employed part-time, less than 35 hours per week
- Self-employed
- Employed in seasonal labor
- Homemaker
- Student only
- Retired

24. Could you provide a job description? \_\_\_\_\_

25. What is your household's *monthly* income from all sources?

- Less than \$1000
- \$1000 to \$1999
- \$2000 to \$2999
- \$3000 to \$3999
- \$4000 to \$4999
- \$5000 to \$5999
- \$6000 or more

**STOP**

Please notify the coordinator you have reached this point, and wait to continue.

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Feasibility Study  
Section 2

**Section D: Yoga & Health**

26. Have you ever practiced yoga before? Yes No  
If no, skip to question 29

27. In past 3 months, have you practiced yoga? Yes No

28. How many times a week? \_\_\_\_\_ times/week

29. On average, how many hours of sleep do you get each night? \_\_\_\_\_ hrs

30. Were you ever diagnosed with depression? Yes No  
If no, skip to question 34

31. How long ago/when? \_\_\_\_\_

32. Were you ever prescribed medication for depression? Yes No

33. Were you, or are you receiving behavioral therapy treatments? Explain.  
\_\_\_\_\_

34. Were you ever diagnosed with any anxiety disorders, including PTSD? Yes No  
If no, skip to Section E.

35. How long ago/when? \_\_\_\_\_

36. Were you ever prescribed medication for any anxiety disorder(s)? Yes No

37. Were you, or are you receiving behavioral therapy treatments? Explain.  
\_\_\_\_\_

**Section E: Emotions Scale**

Please read each statement and circle a number 0, 1, 2 or 3 that indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

*The rating scale is as follows:*

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree, or a good part of time
- 3 Applied to me very much, or most of the time

1	I found myself getting upset by quite trivial things	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I just couldn't seem to get going	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I had a feeling of shakiness (eg, legs going to give way)	0	1	2	3
8	I found it difficult to relax	0	1	2	3
9	I found myself in situations that made me so anxious I was most relieved when they ended	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting upset rather easily	0	1	2	3
12	I felt that I was using a lot of nervous energy	0	1	2	3
13	I felt sad and depressed	0	1	2	3
14	I found myself getting impatient when I was delayed in any way (eg, elevators, traffic lights, being kept waiting)	0	1	2	3
15	I had a feeling of faintness	0	1	2	3
16	I felt that I had lost interest in just about everything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I perspired noticeably (eg, hands sweaty) in the absence of high temperatures or physical exertion	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life wasn't worthwhile	0	1	2	3

*Reminder of rating scale:*

- 0 Did not apply to me at all  
 1 Applied to me to some degree, or some of the time  
 2 Applied to me to a considerable degree, or a good part of time  
 3 Applied to me very much, or most of the time

22	I found it hard to wind down	0	1	2	3
23	I had difficulty in swallowing	0	1	2	3
24	I couldn't seem to get any enjoyment out of the things I did	0	1	2	3
25	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
26	I felt down-hearted and blue	0	1	2	3
27	I found that I was very irritable	0	1	2	3
28	I felt I was close to panic	0	1	2	3
29	I found it hard to calm down after something upset me	0	1	2	3
30	I feared that I would be "thrown" by some trivial but unfamiliar task	0	1	2	3
31	I was unable to become enthusiastic about anything	0	1	2	3
32	I found it difficult to tolerate interruptions to what I was doing	0	1	2	3
33	I was in a state of nervous tension	0	1	2	3
34	I felt I was pretty worthless	0	1	2	3
35	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
36	I felt terrified	0	1	2	3
37	I could see nothing in the future to be hopeful about	0	1	2	3
38	I felt that life was meaningless	0	1	2	3
39	I found myself getting agitated	0	1	2	3
40	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
41	I experienced trembling (eg, in the hands)	0	1	2	3
42	I found it difficult to work up the initiative to do things	0	1	2	3

**STOP**

Please return the survey to the coordinator.

Thank you! 😊

**Appendix E: Follow-up Survey**

To be completed by staff

Participant ID #: \_\_\_\_\_  
Verified by: \_\_\_\_\_ Survey Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
Entered by: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
DB QC'd by: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

# Yoga For Student Veterans



Yoga for Student Veterans Survey

Feasibility Study  
Section 1

Please read each statement and circle a number 0, 1, 2 or 3 that indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

*The rating scale is as follows:*

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree, or a good part of time
- 3 Applied to me very much, or most of the time

1	I found myself getting upset by quite trivial things	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I just couldn't seem to get going	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I had a feeling of shakiness (eg, legs going to give way)	0	1	2	3
8	I found it difficult to relax	0	1	2	3
9	I found myself in situations that made me so anxious I was most relieved when they ended	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting upset rather easily	0	1	2	3
12	I felt that I was using a lot of nervous energy	0	1	2	3
13	I felt sad and depressed	0	1	2	3
14	I found myself getting impatient when I was delayed in any way (eg, elevators, traffic lights, being kept waiting)	0	1	2	3
15	I had a feeling of faintness	0	1	2	3
16	I felt that I had lost interest in just about everything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I perspired noticeably (eg, hands sweaty) in the absence of high temperatures or physical exertion	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life wasn't worthwhile	0	1	2	3

*Reminder of rating scale:*

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree, or a good part of time
- 3 Applied to me very much, or most of the time

22	I found it hard to wind down	0	1	2	3
23	I had difficulty in swallowing	0	1	2	3
24	I couldn't seem to get any enjoyment out of the things I did	0	1	2	3
25	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
26	I felt down-hearted and blue	0	1	2	3
27	I found that I was very irritable	0	1	2	3
28	I felt I was close to panic	0	1	2	3
29	I found it hard to calm down after something upset me	0	1	2	3
30	I feared that I would be "thrown" by some trivial but unfamiliar task	0	1	2	3
31	I was unable to become enthusiastic about anything	0	1	2	3
32	I found it difficult to tolerate interruptions to what I was doing	0	1	2	3
33	I was in a state of nervous tension	0	1	2	3
34	I felt I was pretty worthless	0	1	2	3
35	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
36	I felt terrified	0	1	2	3
37	I could see nothing in the future to be hopeful about	0	1	2	3
38	I felt that life was meaningless	0	1	2	3
39	I found myself getting agitated	0	1	2	3
40	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
41	I experienced trembling (eg, in the hands)	0	1	2	3
42	I found it difficult to work up the initiative to do things	0	1	2	3

To be completed by staff

Participant ID#: \_\_\_\_\_

**STOP**

Please return the survey to the coordinator.

Thank you! 😊

**Appendix F: Qualitative Survey**

1. What was the most useful thing you learned from the program?
  - a. Ask participant to explain how and why.
  - b. What did you like the least?
  - c. What did you think were some barriers to participating in this program?
    - i. Could you provide a specific example?
2. Are you going to continue practicing yoga?
  - a. Would you continue to attend a program on-campus, such as this one?
  - b. Or would you attend a class off-campus at a VA center, or at a private studio?
  - c. Which would you prefer?
3. Has your daily outlook changed since you started yoga?
  - a. How has your daily outlook changed?
  - b. Could you provide an example?

### Appendix G: Class Structure

The yoga was structured into the following four phases: breath warm-up, physical warm-up, peak pose, and cool down. If the yoga poses were asymmetrical poses, each pose would be done leading with right side, then left side. Classes were approximately 55 to 60 minutes each session. The class description requires a general knowledge of hatha yoga poses. If the poses are unfamiliar, the reader is directed to search for poses at [www.yogajournal.com](http://www.yogajournal.com). A general yoga class for student veterans would follow the outlined class:

1. Breath warm-up
  - a. In a comfortable cross-legged sitting position:
    - i. Begin breathing normally for 5-10 rounds of breath
    - ii. Increase depth/duration of breath 5-10 rounds
  - b. Twist in sitting position
    - i. Coordinate movement with breath
    - ii. Focus on longer, deeper breaths
  - c. Butterfly pose with spinal extension and flexion coordinated to inhales and exhales
  - d. Shift to hands and knees position
    - i. Cat and cow yoga poses, approximately 10 rounds of breath
    - ii. Thread the needle poses, approximately 10 rounds of breath
    - iii. Thoracic spinal twist with lumbar lock exercise 7-10 times
  - e. Transition to standing position or mountain pose
    - i. Focus on breathing and putting weight into ground, 5-10 rounds of breath
2. Physical warm-up
  - a. Sun Salutation Sequences A, B, and C
    - i. Sequence implementation would vary, i.e. 4 rounds of Sun Sal C, 3 rounds of Sun Sal A, etc.
    - ii. Modifications provided
  - b. Implementation of the following poses:

- i. Warrior II
  - ii. Triangle
  - iii. Side-angle
  - iv. Tree
  - v. Dancer
  - vi. Flying Downward Dog, 5-10 rounds
3. Peak Pose
  - a. The peak pose would vary depending on the day, although for this example Upright Pigeon or Mermaid Pose would be the peak pose.
  - b. Sun Salutation C, low lunge variation
  - c. Yogi squat pose
  - d. Hero pose or variations for demonstration
  - e. Upright pigeon to Mermaid pose sequence, holding for 5-10 rounds
  - f. Transition to Sleeping Pigeon pose
4. Cool Down
  - a. Child's pose, 1-2 minutes
  - b. Half Lord of the Fishes pose, 5-10 rounds
  - c. Supine figure four exercise, 7-12 rounds
  - d. Happy baby pose
  - e. Transition to sitting position, and Butterfly pose
  - f. Comfortable upright sitting position, 5-10 rounds of deep breathing