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Yoga therapy for military personnel and veterans: Qualitative perspectives of yoga students and instructors

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Abstract

Objective: Millions of military personnel and veterans live with chronic mental and physical health conditions that often do not respond well to pharmacological treatments. Serious side effects and lack of treatment response have led to widespread efforts to study and promote non-pharmacological and behavioral health treatments for many chronic health conditions. Yoga is an increasingly popular mind-body intervention that has growing research support for its efficacy and safety. Our objective was to explore the attitudes, perspectives, and preferences of military personnel and veterans toward yoga as a therapeutic modality, thus providing needed information for designing and promoting yoga interventions for this population.

Methods: Participants included 24 individuals with yoga experience and current or past military service and 12 instructors who have taught yoga for military personnel and/or veterans. A semi-structured set of questions guided interviews with each participant.

Results: Five themes emerged from the interviews: (1) mental health benefits experienced from yoga practice; (2) physical health benefits experienced from yoga practice; (3) important yoga

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Conflict of interest

The authors declare that they have no conflict of interest.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.ctim.2017.10.008>.

elements and conditions that support effective practice; (4) facilitators for engaging military in yoga practice; and (5) challenges and barriers to yoga practice for military.

Conclusions: The study highlights consistent reports of mental and physical benefits of yoga practice, ongoing stigma resulting in the need for combatting and demystifying yoga and other complementary and integrative health (CIH) practices, the importance of designing interventions to address the unique mental health issues and perspectives of this population, and the importance of efforts by military leadership to bring CIH to military personnel and veterans. Rigorous research addressing these findings, along with further research on the efficacy and effectiveness of yoga interventions for treating various conditions are needed.

Keywords

Yoga; Mental health; Chronic pain; Military personnel; Qualitative research

1. Introduction

In recent U.S. military operations in Iraq and Afghanistan, approximately 2 million individuals have been deployed.¹ As a result, there are notable recent increases in the numbers of military personnel and veterans suffering from post-traumatic stress disorder, traumatic brain injury, and pain conditions, creating large increases in needs for specialized services.² These increases are in addition to even larger cohorts of veterans from previous conflicts, many of which are living with chronic pain and mental health issues after service.³ High rates of co-morbidity exist among pain and psychiatric conditions such as Post Traumatic Stress Disorder (PTSD), Traumatic Brain Injury (TBI), substance use disorder, and depression,⁴ and such comorbid conditions are associated with poorer response to treatment and somatic amplification of symptoms.⁵ Medication has frequently been the primary treatment approach for chronic pain. In turn, chronic pain patients with comorbid mental health disorders are more likely to initiate and continue opioid therapy, to misuse medication, and to benefit less from analgesics.⁶ Guidelines now advise caution with opioid medication use and more proactively recommend non-pharmacological approaches.⁷⁻⁹

Due to the substantial and growing problem of mental health issues, chronic pain, and other chronic conditions in military personnel and veterans, the Department of Defense (DoD) and the Department of Veterans Affairs (VA) are increasingly incorporating complementary and integrative health (CIH) approaches into their patient-centered plans of care, a development that promises to more comprehensively address these growing problems.¹⁰⁻¹² While this expansion provides a great opportunity to demonstrate the usefulness of integrative health at a healthcare system level, there is variability in the evidence supporting CIH services for different health conditions. Much more research is needed to ensure that integrative modalities are included in ways that maximize their effectiveness.

Yoga is an example of an integrative approach that may be ideally suited for co-occurring conditions including chronic pain and mental health symptoms. Yoga is multidimensional and combines physical, mental, and, often, spiritual aspects of treatment. The benefits of yoga have been demonstrated among non-veteran^{13,14} and veteran populations^{15,16} with chronic low back pain, and promising results have been found for other conditions

experienced by military personnel and veterans, including combat stress¹⁷ and PTSD.^{18,19} Other recent studies of yoga for PTSD remain quite small,^{20,21} but many researchers await the results of a full-scale VA-funded randomized controlled trial, which are expected in 2018.²² However, further study of yoga as a treatment option for veterans and military personnel with mental health and chronic pain disorders is needed.

Yoga interventions vary quite widely in the components that are emphasized and the setting in which they are conducted.^{23,24} Thus, it is important to determine not only what types of yoga are best for specific health conditions, but also what barriers and facilitators may exist for greater uptake of yoga and other CIH modalities by specific populations, namely among military personnel and veterans. One recent study identified such barriers for non-pharmacological treatments more broadly, finding that patients were concerned about cost, transportation, and motivation to be active, while healthcare providers noted existing opioid use and patient skepticism as probable barriers.²⁵ Our objective in this qualitative study was to explore the attitudes and perspectives of military veterans and current military personnel toward yoga as a CIH therapeutic modality, in order to better plan for and support the provision of yoga to military populations.

2. Methods

2.1. Recruitment

Active duty military, reservists, and veterans who regularly practiced yoga were recruited for participation in a 45–50 min interview with a researcher to discuss their experiences with yoga. The study protocol was approved by the University of California San Diego Human Subjects Protection Program. Recruitment via flyers and word-of-mouth was conducted primarily through the Naval Medical Center San Diego and community partners that provided yoga classes specifically to military personnel and/or veterans. Potential participants called study staff and were screened by phone to ensure they met study inclusion criteria before they were invited to participate in the study. Volunteers received a \$50 gift card for their participation. Inclusion criteria were: 1) 18 years of age or older; 2) were currently or previously enlisted in a branch of the United States Armed Forces (or taught yoga specifically to groups of active duty military or veterans); and 3) have taken (or taught) 5 or more yoga classes in the last 2 months. Those who met the inclusion criteria were scheduled for the qualitative interview at a university research office in a confidential setting. Research staff provided information about the study and the goals of the interview. After participants provided consent for the interview, the research staff person exited and the qualitative interview expert entered and conducted the interview in private. Measures were taken to ensure the comfort of the participants that might be trauma sensitive, such as having the choice of which chair to sit in (facing the door or facing the window) and whether they preferred to have the door open or shut during the interview.

2.2. Qualitative interviews

Qualitative interviews were carried out between June and September 2015. All procedures for data collection and analysis were reviewed and approved by a university Institutional Review Board. Informed consent was secured from every participant prior to the interview

process. A total of 36 interviews were completed, which included two subsamples: a) yoga students (N = 24), including active duty, veterans and reserve participants; and b) yoga instructors (N = 12) who taught yoga for active duty or veterans. Interview guides were designed in a semi-structured open-ended format^{26,27} to increase potential for exploring different participant viewpoints and personal experiences with yoga practice in the military or as a veteran. Qualitative interview guides were developed to be used with yoga students and instructors. Both instruments presented similar questions focusing on observed or experienced involvement in yoga practice and the resulting types of benefits or challenges. Study interviews were conducted by two trained research staff members. All interviews were digitally audio-recorded and professionally transcribed in preparation for content analysis. The lead qualitative data analyst reviewed recordings for accuracy and in case the meaning of the transcription was unclear. Most interviews lasted 40–50 min including time for the consenting process. The minimum and maximum interview lengths were 16 and 55 min, respectively.

2.3. Data analysis

A conventional content analysis approach²⁸ was employed to with attention to the aims of the supplemental grant and interview questions. A qualitative research expert began preliminary cycles of open and focused coding with approximately 20% of the total transcripts. The initial development of the codebook made use of the structured interview guide to identify contextualized segments of data that corresponded to targeted questions.²⁹ Transcript data that could not be categorized using the question-based coding approach were assigned novel codes reflective of important descriptive information that emerged in the text. In some cases, the addition of codes also resulted in expanding a subcategory of an already existing exemplar.³⁰ To further increase the validity of the coding schema, the lead analyst reviewed the codebook with an additional member of the research staff who had additional expertise on yoga and on working with military personnel. This joint review provided a deeper, multidisciplinary reflection on the coding and was designed to resolve any potential disagreements about the code assignments.³¹

After the final coding schema was determined, all interview transcripts and the codebook were uploaded to a standardized web-based qualitative analysis program known as Dedoose (Version 6.1.18).³² The Dedoose system stores, organizes and reconfigures the data to enable more efficient human analytic reflection. The lead and secondary analyst conducted the final cycle of coding, using Dedoose and all of the data, which facilitated arrangement and rearrangement of the most salient of the coded excerpts into essential concepts. A visualization scaffold of the findings was then created using the software program FreeMind.³³ Freemind is a display tool that assists researchers with conceptualizing patterns and relationships in the data that overlap and intersect.³⁴ These visual maps help researchers to explore shared meaning between categories to refine and highlight themes from the data findings.³⁵

3. Results

A total of 52 people contacted study coordinators with interest in participating in the study. Seven were ineligible or declined further participation (1 did not practice yoga, 1 not military, 1 conflict of interest, 4 interview location or time not convenient). Of the remaining 45 eligible potential participants, the first 36 people that could participate at the designated interview location were enrolled (See Table 1). The remaining 9 potential participants were not enrolled and demographic data were not collected.

Findings from the qualitative analysis identified key ideas and themes that were prevalent during the interviews of yoga students and instructors. These themes include (1) mental health benefits experienced from yoga practice; (2) physical health benefits experienced from yoga practice; (3) important yoga elements and conditions that promote effective practice and/or health benefit; (4) facilitators for engaging military in yoga practice; and (5) challenges and barriers to yoga practice for military.

Each theme is described with supporting quotes that were chosen based on being representative and/or an interesting illustration of the main ideas captured to exemplify the domain. Quotes are verbatim unless indicated by an ellipsis (...) to signal that small segments of text have been removed for the sake of clarity.

3.1. Mental health benefits

Our analysis revealed considerable discussion from both instructors and students of the benefits of yoga for managing health-related concerns. All study participants spoke at length about the clinical relevance of yoga for managing symptoms and conditions regardless of a person's age, gender, or health status. Student participants often described their struggles with symptoms of depression, sadness, and stress-related anxiety. For many, the outcome of learning to control these symptoms through yoga practice also provided an opportunity to reduce some of the medications they were taking.

'When you're in emotional pain all the time you get sucked into a cycle of depression and suffering and you don't want to talk to anyone or do anything. I started noticing after doing yoga class that it helped me reduce stress – keeps me more grounded I'd say. And it did help me reduce feelings of depression.'

(Veteran student)

"I feel like yoga... it makes me happy, doing yoga. I just want to do it all the time. It prevents me from being stressed and worried. And I have an anxiety problem, as well, and so I didn't want to take any anxiety pills, or anything like that, and yoga has actually benefitted me a lot. I'm not stressed or, well, my stress levels have come down tremendously, and I'm just more relaxed."

(Veteran student)

"We all are not 100 percent. The yoga experience, well basically all I can say is that honestly, it has helped me... I was taking six, seven types of different medication, and now I'm only taking, right now, three."

(Active Duty student)

Likewise, many instructors elaborated on how yoga can be a great antidote for sleep problems. Instructors described that for many of the students, the opportunity to practice yoga allowed for a significant calming effect, which also provided a more effective way to relax and to achieve a peaceful night's rest.

“They come in and they tell me that their mind's going wild, and in an hour they'll come to me and say, 'I can't believe how different I feel.' They'll come back the next week, and say, 'I can't believe how I slept that night, or how it's immediate benefits that they're feeling right away.”

(Instructor)

I know for a fact that in the yoga classes, that was the first time some of the combat guys actually fell asleep, or let go, or completely relaxed.”

(Instructor)

Students and instructors alike emphasized how yoga helps to provide a sense of improved emotional well-being, improved cognitive functioning and structure. Some students stated that as a result of doing yoga they were able to transfer skills and discipline they learned into other areas of their life.

“When I didn't have it [yoga], you know, life was just like... there was no direction. It was a little chaotic. And then I had a practice and then I had a routine. I had found my discipline again. And things started to fall into place, you know. I was taking classes and, you know, having goals again. And I think I equate this to being... to this practice of taking yoga.”

(Veteran student)

“Cognitive function improves through the yoga practice. I would say whatever that practice is. So if your cognitive function improves, your decision-making improves. Less emotional. Can make faster and better decisions. And that brings a state of awareness for these students... so they don't have to react emotionally to every event that occurs.”

(Instructor)

Other students disclosed personal experiences in which they recalled increased feelings of positivity through yoga, which helped to promote compassion, emotional sensitivity and improved interaction with family, friends, and even strangers.

“My attitude was starting to grow in more positive ways. It [yoga] just kinda was the trigger. It was the gateway that helped lead me to overall healthy living and mindset and general attitude toward people, not just my daily attitude... once I realized that, well okay, I can take charge of myself and regain my happiness to its fullest.”

(Veteran student)

“I'm more patient. I'm more present to things. I'm better. I've always been a pretty good observer and listener but I'm even better now. I guess those are kinda the

changes that really stand out... the patience and the presence and the ability to listen to others and stuff like that. And then maybe just a general increased feeling of connectedness with everyone.”

(Veteran student)

3.2. Physical health benefits

Substantial improvements in minimizing symptoms for pain-associated disorders were noted by several students and instructors. Many of the participants’ personal stories included examples of how practicing yoga seemed to reduce pain intensity/frequency for conditions such as arthritis, lower back pain, migraines, and headaches. Statements on reduction of pain also frequently correlated with additional comments on achieving a calmer mental state, of which both instructors and students insisted was helpful in falling asleep and staying asleep for longer durations of time through the night.

“I went to physical therapy and ... they just didn’t really help so I do that hot yoga and it has helped with my neck, back, and knee pain. If I stop doing yoga then it all comes back. I feel overall physically healthy from practicing.”

(Veteran student)

“I used to have sciatica issues that were getting sometimes worse... and since I’ve started [yoga], even if that does flare-up a little bit it goes away within a couple of days. And, really, it’s just fewer and farther between. A lot of my joints, I guess, have been kind of reformed a little bit, where... knee popping and stuff that used to happen, it just kind of went away.”

(Veteran student)

“I have a lot of pain, so for me to be able to do some of these things... I’m full of scar tissue in me, so I have to constantly keep moving that, and that’s how I break it up and move it, is by doing all these crazy poses... I used to go days without sleeping because of the pain, or I’d drink a half of fifth in three glasses till I passed out. But now, yeah, I can (sleep) – and no meds – I can just lay down and rest.”

(Veteran student)

“We know it helps take away pain. And it reduces stress. It leaves you feeling calm when you’re done with the yoga class. And that’s what I promised them was a good night’s sleep, and so that’s what they got, a good night’s sleep without pain or anxiety waking them up all hours of the night.”

(Instructor)

Improved physical functioning with respect to muscular strength, body flexibility and balance/coordination were repeatedly cited as positive outcomes among students. *Iyengar* and more general *Hatha* yoga seemed to be the most typically mentioned styles of yoga practice reported by students and instructors. Both forms were also regarded as easily adaptable for older veterans.

“My balance has improved. I mean, when I first started practicing yoga, I could not stand on one foot for more than say, half a second. Now, I can– well at least on the

right foot, I can hold dancer pose for I'd say maybe thirty seconds. Still a lot of hamstring tension and stuff. I'm sure it's from my heels. Doing yoga is working it out slowly. I definitely feel like I'm stronger than I used to feel."

(Veteran student)

"Doing Hatha yoga really helped me with basic muscle recovery, because if you try to work out a stiff muscle and try to break that down, it's going to be slower for it to recover. We do stretching, and breathing, and also poses at the same time too. We do downward dog and child's pose... just nice, easy, relaxing, nothing too strenuous. It's to help stretch out and let go of all the tension that you have."

(Active Duty student)

"So it's definitely not one size fits all with veterans in my classes, but you kind of find that middle range, which is generally a gentle Hatha beginner's to where everybody gets a little bit of stretch and poses that activate the parasympathetic nervous system. I fluctuate... some days it can be slow and other days it can be faster. They want to develop flexibility and strength but they need the breathing and relaxation."

(Instructor)

Several students described trying other forms of yoga (Kundalini and Bikram) to broaden their practice holistically. In these cases, all additional practice classes were attended at local studios, not designed or taught specifically for military personnel. More than half of the students also discussed supplementing their yoga practice with swimming, walking and in a few cases playing golf. Still others increased the frequency of their practice with "at home" sessions, which may have included some general stretching, yoga DVDs, Yoga YouTube, or Yoga Wii.

3.3. Important yoga elements and conditions that support effective practice

When asked about the most important aspects of yoga practice, students described an array of elements, such as physical postures, breathing techniques, meditation, spiritual aspects of yoga, and focusing the mind.

"I like the challenge of the different asanas. But I would say what I enjoy the most is the Happy Child pose. I also think the breathing and meditation is important too. Especially when I have had one of those stressful days... sometimes I just take, like, five minutes away from everyone and just breathe until I can refocus my attention."

(Active Duty student)

"The one I liked and is most beneficial to me is the warrior series where you really get into the pose and you breathe and really stretch. And then you can turn and then I can feel it all through my body, down the legs and stuff and the feet. That's my favorite."

(Veteran student)

“I’m a very spiritual person. I grew up Catholic. I don’t consider myself a religious person. But I consider myself very spiritual, and I think that’s the most important thing... when we are seated in meditation and really reflecting and kind of thinking about what matters the most in life. I think that part of my practice helps me the most.”

(Active Duty student)

Instructors also commented on the important effects of breathing and relaxation for their active or retired military students. Several of the instructors explained that without the students’ ability to master the benefits of pranayama, the underlying transition of connecting breath to body would be difficult to cultivate and even harder to bring them to experience the “present” in the moment and quiet an overactive mind.

“To me it’s their breathing. It’s the breathing. It’s getting them to recognize what a full breath is. Getting them to recognize the benefits of breathing and using a three-part breath. Using pranayama... and then connecting that breath to their body, doing a body scan at the end... I can see the rhythm as they’re in that final resting post.”

(Instructor)

“So before you can begin to feel your body, you have to get focused, and so the breath, the breath rhythm, brings you into the here and now. It brings you from sympathetic to parasympathetic, and then that base is what you use– the breath work is what you use throughout the physical practice. So if you... start the physical practice without the pranayama foundation, you’re already cheating your students.”

(Instructor)

Additionally, instructors described their efforts to develop a yoga practice that was trauma-informed and sensitive to the needs of active or retired military personnel. Several instructors pointed out strategic preferences to the layout of the room and positioning of the mats, such as backs to the wall; feet toward the door, while others described the importance of instructor conduct and guidance during practice. Yoga students did not make any reference to trauma-sensitivity or its importance, although they were not specifically asked about it. It is possible that instructor attention to this issue made it a non-issue for students.

“I went to a training with Connected Warriors. Wow. I learned I have to change some things around, the way I teach for veterans who are trauma-sensitive. Like, the positioning of the room, where I would be sitting, where they would be sitting. They want to have a window. Or they were even saying if you have a window with blinds you want to prevent somebody from walking past that on the outside. Some vets might take it as a sniper or something like that. You have to watch the words you say. You can’t say corpse pose at all... you have to be careful that none of the terms are words or situations that would provoke anxiety. The poses themselves, however they seem to be fine with that part.”

(Instructor)

“A lot of our students are unwilling to be touched or manually adjusted in a posture. Too much spotlight on them, I tell people, ‘You’re not being judged. I’m not judging you. You have to learn your limits,’ and I start at a pose and then I either say, ‘You can ease up on it or you can increase it,’ but nobody ever feels threatened. We are sensitive to the kinds of injuries that the doctors send them in with, they prescribe yoga to—and we’re very much aware of that, and that’s how we practice.”

(Instructor)

A number of instructors also emphasized the importance of having sufficient supportive yoga equipment (mats, blocks, belts, blankets) to assist in modifying poses not only as a safety precaution but to assure success, trust, and comfort for the students during a yoga session.

“In my class the Navy has provided us with everything. We have mats, props, blankets, pillows, sandbags, pads to put our feet on. So they’re in like a little cocoon. They’re very well protected. We make them feel safe.”

(Instructor)

3.4. Facilitators for engaging military in yoga practice

Most active and retired veteran students expressly stated they prefer to do their practice in a classroom setting where an instructor is available to demonstrate, observe and assist them with different postures and adjustments. Instructors and students each repeatedly praised military bases and hospitals for not only endorsing but offering yoga classes for active duty and veteran personnel. This commendation was acknowledged as perhaps the greatest facilitator for engaging and encouraging military members to enroll in yoga classes.

“I think that yoga should be implemented in every command in the Navy without a doubt. Not only is it cost effective... but it’s also extremely beneficial because with increased flexibility you, of course, have less injuries.”

(Active Duty).

“We have a yoga class at the hospital base you can come to,” and so people come out and try it and see if they like it. I’ve had students with me now for 10 years. I’ve seen more growth in that direction. And as I said, one of the departments sent an email to all their patients and said, ‘please try the yoga class,’ so that to me was a huge step in supporting our work and letting the people know that yoga is something the military endorses for good health.”

(Instructor)

“I did a yoga challenge on base. There were all kinds of ranks in there, and I did that purposely, because I thought these guys would love that... standing next to a commander and they’re enlisted. You know, because the commanders or the chiefs are present... these guys are encouraged more to do yoga. And there’s no stigma between the ranks. I had a lot of chiefs really interested in taking the yoga program to their PT training.”

(Instructor)

Students also spoke enthusiastically about introducing and including significant family members to the practice of yoga. Many saw this as an opportunity to not only grow in their practice of yoga but also importantly increase family time together with loved ones.

“My husband doing it [yoga] with me or me doing it with him. I think, one, if you’re fit and you’re stretching, you know, it’s going to prevent injuries, especially as we get older. I think it just kind of brings a balance. It’s certainly brought me and my husband closer together doing something together. And then, just getting me being stronger.”

(Veteran student)

“I’m lucky because I am actually able to afford to do it [yoga], both in time and money. So, right now we have a family membership-type thing, where we just... so we pay one set amount for the year and for unlimited classes. It includes a couple different types of yoga plus Cross-Fit, which I like to do. Plus, having a supportive spouse, because my wife does it also. And so, in that case, it is just good. Yoga is another common thing for us to do together and enjoy. My wife is really encouraging.”

(Veteran student)

“I definitely want to look into bringing my daughter into it [yoga]. Yeah, so, we can try to make it a little family thing, because it’s— yoga doesn’t really cost anything, but it’s something that could help build a family together. If like one of us is struggling with something, we can help be there to help them out, to understand it and to be able to push through little issues. It was just by luck and by coincidence that they did have this at the beach at a clinic that I was already going to.”

(Active Duty)

3.5. Challenges and barriers to yoga practice for military

For active and retired military managing psychological burdens and acute medical conditions, the prospect of initiating a yoga practice may be viewed skeptically as an effective self-care behavioral treatment. Both students and instructors recounted personal experiences where simply “getting in the door” produced enormous resistance and apprehension before they were cognitively able to perceive the potential benefits from it.

“Sometimes I just don’t want to be around people. Like... I’m sensitive to being in groups. It’s like nails on a chalkboard within groups sometimes. Just getting out is hard enough and being around people ... so close. I sometimes can’t breathe. There were moments I just wanted to run out of class.”

(Veteran student)

“I had a back injury. So there is, I know there’s a position where we get into that I can’t do or when I do it I have to kind of just kind of pull back and just say, ‘Well, I’m just going to sit here and watch everybody.’ So you have to know your physical

limitations. And the instructor stresses that all the time. I had to learn that if it hurts, then stop what you're doing... and just wait it out."

(Veteran student).

"I think there is a lot of resistance to getting internal and being in touch with your emotions... especially when you get back from deployment or if you've been deployed you do have to numb out a little bit, because it's intense and it's emotional. A lot of these people don't feel alive unless they're ramped up. So the process is slow in breaking these barriers down and supporting them to open up."

(Instructor)

Other challenges explicitly reported by students targeted the problem of "stigma," which proved to be an insightful topic. Many of the students shared misperceptions around yoga that were especially common in military culture. Negative typecasting of yoga included concerns that yoga is not macho or manly, not a sport or a competition, and not comparable to endurance or physical training workouts. There were also statements suggesting that yoga is not well understood by many in this population, and myths or stereotypes might be perpetuated in military culture.

"They probably think that it's either some dope smoking hippie with incense or 'We're gonna give you all a hug when it's all over.' And then those yoga pants and all of these yoga studios... it's everywhere. And it's everywhere in the media, yoga this and yoga that. So guys say, 'No, I need to throw around weights. That's what I like. I wanna run 26 miles and bike another 30 and swim for 5 miles.'"

(Veteran student)

'I would say the fear of the unknown. They might see a bit of yoga on TV, as an exercise or something and they'll see these poses where you're stretching here and you're bending here and you're doing all this. So there's a fear maybe, "Oh, that might hurt me. I can't. I might break something or do something or strain something.'

(Veteran)

'I wouldn't even say it's military as much as it's men thinking that it's a women's sport or not even a sport, they think that it's stretching and silliness, you know, "Oh, I'm probably going to go in there and just, 'Om' and what good is that going to do me?"'

(Active Duty).

Other challenges that students described included financial concerns regarding the affordability of classes that were off base and located closer to home. For military who are deployed, the challenge was just straightforward availability.

'It's just getting there lately, because I've been having a lot of critically ill patients at the hospital and I'm busy all day, and then afterward I'll barely do a few things, like a 10-minute practice, and then on my day off—I don't want to drive back in... I just have to get into a routine. So that's definitely been my barrier lately.'

(Active Duty)

“If you’re a Marine or you’re on a ship, it’s just not something that you can work into your day. They have very busy days, especially if they’re deploying, or whatever, when they need it the most. If you’re taking it out in town, there’s a cost effect. It’s pretty expensive.”

(Veteran student)

4. Discussion

Prior to this study, very little qualitative research on yoga in military populations has been conducted. This study uniquely highlights participants representing active duty and veteran yoga students as well as instructors who have taught yoga for active duty or veterans. Although there is a growing body of quantitative research on yoga in military populations, the qualitative approach of the present study provide unique insights into the experiences, perspectives, and attitudes toward yoga in this population, and suggests a number of important areas in which yoga research and yoga programs can promote and facilitate this non-pharmacological option in this population.

Five themes were prevalent among the 36 qualitative interviews conducted with active and retired military yoga students and instructors who taught for military personnel: (1) mental health benefits experienced from yoga practice; (2) physical health benefits experienced from yoga practice; (3) important yoga elements and conditions that support effective practice; (4) facilitators for engaging military in yoga practice; and (5) challenges and barriers to yoga practice for military. All themes share a core construct that is central to the specific aims of the study – to explore and understand the attitudes toward, preferences for, and perceived efficacy of yoga and varying types of practice for different health conditions.

Both students and instructors described a variety of experiences supporting the use of yoga for improving mental health. Given the evidence demonstrating elevated rates of psychological disorders in military populations, it is not surprising that our active duty and veteran students reported a variety of psychological challenges (depression, sadness, stress-related anxiety and disturbed sleep), which motivated their interest in using yoga as a means of symptom relief. Benefits the students described included not only reducing anxiety and depression but also increasing happiness and having stronger feelings of self-efficacy and a greater sense of positivity toward others. Yoga instructors frequently noted the calming influence yoga had on their students, both during actual practice sessions and in student reports about experiencing a peaceful night of sleep and the ability to regulate stress. The acceptance of yoga practice, especially among some of the yoga students who were initially skeptical, is in line with a growing consensus of researchers and military clinicians that the focus on breathing, meditation, movement, and emotional regulation promotes an acceptable new option for addressing mental and physical health challenges in this population.

The practice of yoga has the benefit of combining psychologically beneficial tools with physical movement and postures to improve strength, balance, flexibility, and in some interventions, aerobic fitness. In this vein, the majority of our active duty and veteran

students commented frequently on the relevance of maintaining yoga practice to control chronic pain and other physical symptoms. In several instances, students claimed to have reduced their reliance on medications through yoga practice. In fact, the importance of medication reduction was noted by student participants multiple times in both the mental and physical health themes referencing the therapeutic effect derived from yoga practice for reducing or alleviating structural, physiological, and emotional distress or limitations. Many instructors and students pointed out the physical health benefits that yoga provides because it is multidimensional and adaptable, and yoga sessions and poses can be modified for military personnel and veterans with a wide variety of health conditions and physical needs. Improved physical functioning also seemed to motivate more than half of active duty and veteran students to supplement their yoga practice with additional home practice or other forms of exercise that emphasize development of flexibility and strength and focus on proper breathing and mindfulness with movement.

When asked about important yoga elements and conditions that support effective practice, students and instructors alike remarked on the importance of breathing exercises as fundamental to the activation of the body's relaxation response and ability to control stress. Breathing and seated meditation during yoga were commonly described by students and instructors as important elements allowing for the safe release of stored emotions such as relief from anger, grief, and the rumination of negative traumatic thoughts. Using elements such as breathing, mindfulness, and meditative postures, students cultivated the ability to focus on the present and control feelings or at least understand them as temporal and transient. These elements are quite similar to those noted as being important in a qualitative study of veterans who were cancer survivors.³⁶

An important facilitator for engaging active duty and veterans in yoga practice identified by both instructors and students was the active endorsement by military bases and hospitals and veterans' services that offer yoga classes for military personnel. Many active duty students described participating in yoga classes on base where it was common to find a commander or chief standing next to enlisted men and women during practice and thus building a sense of community and bonding, even among different ranks. This same sense of community was similarly important for veterans, too, in creating opportunities to explore nonconventional healing modalities and nurturing a much-needed sense of support in releasing long held wartime experiences that have become intertwined with living a "normal" life. In fact, for veterans and active duty, many of our students were enthusiastic to expand their yoga experience into family-shared yoga practice that increased important time spent together with loved ones. In addition to the benefits received via military camaraderie and family encouragement, many students also viewed yoga practice as a smart strategy to sustain flexibility, muscular strength and balance and reduce the potential for future injuries or infirmity.

Additionally, several of our instructors discussed the importance of delivering trauma-sensitive yoga to military and veteran populations. They noted the availability of trauma-sensitive training for yoga instructors and they noted preferences to the layout of the room, where the instructor would be sitting, the positioning of mats, and consideration for students who may not want to be touched or manually adjusted during a yoga session. These features

were seen not only as a safety precaution for a trauma-informed class but to increase trust and comfort for the students during their yoga practice.

Finally, instructors stressed the importance of being able to provide mats, props, blankets, and pillows to again support the safety and feeling of being protected in the class, as well as to facilitate the delivery of yoga interventions to veterans and military personnel who present with a very wide variety of abilities and medical challenges. Depending on the class, an instructor may teach to both a 20-year old able-bodied individual with PTSD and a 70-year old individual who has undergone amputation or major back surgery in the past. The use of props and modifications are an important and well accepted part of delivering therapeutic yoga, as advocated by various styles of yoga such as Iyengar³⁷ and Viniyoga.

In contrast to facilitators of yoga practice, one of the greatest difficulties or challenges to practicing yoga noted by both instructors and students was acute or severe psychological and medical conditions for which props or modifications may be more challenging. Several students also described a strong resistance and apprehension they carried toward yoga in the past. They also previously believed that benefits or changes from yoga were not possible, particularly at a time when physical limitations and sensitivity to being around people made the notion of practice nearly unbearable to personally endure. Student participants also reported being confronted with expectations set in traditional exercise models emphasizing muscular fitness and relief through physical exhaustion. These comments revealed perceptions that yoga is not strenuous enough, or requires incredible feats of flexibility, despite research indicating the adaptability and acceptability of yoga for different health conditions in the general population,^{38,39} and more recently, in studies with veterans and military personnel.^{40,15,41,42}

Another challenge explored was the topic of stigma, which has been an ongoing hurdle in promoting yoga classes with the military, given the negative stereotype that it is not macho or manly. Certainly the students who we interviewed who were involved in attending yoga classes and had participated with other veterans or active duty felt there was more work to be done by the military and general public to develop a better holistic understanding about the importance of a yoga practice. Additional challenges mentioned included military who were deployed with no access to classes and the financial burden of seeking yoga classes at private studios, which might be closer to home and offer greater availability of classes.

5. Limitations of the study

As a qualitative study, the generalizability of our findings may be limited due to the size of our sample for students and instructors. Thus, it is hard to know whether the views expressed would extend beyond those sampled. Similarly, the interviews were only conducted with military personnel/veterans and instructors who have engaged in yoga on a regular basis in the past. Thus, the data do not reveal the attitudes or perspectives toward yoga of yoga-naïve military personnel/veterans, and why they have not tried yoga, or why they may have discontinued yoga after starting yoga practice. Future research should include those individuals who have not tried or dropped out of yoga classes. Additionally, the structured and comparative approach of the interview script was driven by the objectives of the

research and likely influenced the content and direction of discussion. Finally, although many of the participants discussed and provided insight into the health conditions they faced, we did not gather detailed information regarding health conditions or some demographic variables. There were no participation criteria concerning the presence of specific health conditions, limiting the generalization of the data to any specific health conditions.

6. Conclusion

This study provides detailed insight into the first-hand experiences of military personnel/veterans and instructors who have practiced or taught yoga as a sustained practice. The findings highlight a) the potential importance of efforts by military leadership to bring CIH to military personnel and veterans; b) reports of mental and physical benefits of yoga practice; c) ongoing stigma and a possible need for combatting and demystifying yoga and other CIH practices; and d) the importance of designing interventions and emphasizing instructor-sensitivity to address the unique mental health issues and perspectives of this population.

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Table 1

Participant Demographics.

	Students (n = 24)	Instructors (n = 12)
Military status	10 active duty	5 veterans
	1 reservist	7 no personal military service)
	13 veterans	
Age	mean = 47.0 (range 20–79)	mean = 46.0 (range 35–65)
Gender	18 male	4 male
	6 female	8 female
Race/Ethnicity	13 White (Non-Hispanic/Latino)	9 White
	2 African Americans	1 African American
	1 Native Hawaiian or Other Pacific Islander	1 Asian
	5 Latino/Hispanic	1 did not specify
	3 did not specify	
Era of Service	12 'War on Terror'	2 'War on Terror'
	5 'Gulf War'	1 'Gulf War'
	1 'Post Vietnam Cold War'	2 did not specify
	6 'Vietnam War'	7 no personal military service

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