Complementary and Alternative Medicine (CAM) for PTSD

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Key Points

- Use of CAM is widespread for the management of mental health problems, including PTSD.
- There is only limited evidence about the effectiveness of CAM as a treatment for PTSD; however, the evidence suggests that some CAM approaches have modest beneficial effects as a treatment for PTSD.
- Most VA mental health programs offer CAM approaches; VA is supporting efforts to study the benefits of CAM for PTSD.

Complementary and alternative medicine (CAM) therapies

Broadly conceptualized, "complementary and alternative medicine" (CAM) refers to treatments not considered to be standard in the current practice of Western medicine:

- Complementary refers to the use of these techniques in combination with conventional approaches.
- Alternative refers to their use in lieu of conventional practices.

Many treatments and techniques that are considered CAM within the U.S. are part of conventional medicinal practices in other parts of the world. As Western practitioners and consumers increasingly adopt these approaches, the boundaries between conventional medicine and CAM continue to shift. Please visit The National Center for Complementary and Alternative Medicine (NCCAM) for a complete overview of CAM interventions.

Conventional PTSD treatment and CAM

Some conventional therapies for PTSD (e.g., cognitive behavioral therapies [CBT]) include elements that are consistent with CAM approaches. They are not considered to be CAM herein because CBT has a separate and well-developed basis in cognitive and behavioral theories. The CAM techniques that are used in CBT (e.g., relaxation, mindfulness) are conceptualized as supporting cognitive-behavioral mechanisms as opposed to operating on their own to create change. For example, relaxation may be used during exposure-based treatment for PTSD to manage arousal, thereby helping the patient to tolerate the exposure, which is believed to be the major change agent.

Psychotherapies such as Acceptance and Commitment Therapy (ACT), Dialectical Behavior Therapy (DBT), and Mindfulness-Based Cognitive Therapy (MBCT) include mindfulness, which has been defined as "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally" (1). Mindfulness is seen as an important agent of change in these approaches because it shifts the individual's perspective in a way that counteracts psychopathological processes. Within these approaches, mindfulness is coupled

with cognitive and behavioral principles and techniques to affect change. For this reason, such interventions are not considered to be CAM.

Widespread use of CAM for PTSD in Veteran and civilian populations

In general, reported rates of CAM use are similar in Veteran and civilian samples, ranging from approximately one-quarter to one-half of respondents, depending on the type of CAM and health conditions assessed (2-4). Active military personnel are not captured in nationally representative or Veteran samples, but research suggests rates of CAM use in the military are similar (5,6), if not higher (7) than rates of CAM use among Veterans and civilians.

The use of CAM therapies specifically for management and treatment of mental health problems is common (8) and increasing (9,10). Among a nationally representative sample, rates of CAM increased for managing anxiety (20.2% to 27.9%) and depression (40.9% to 42.7%) between 1990 and 1997 (9). In another nationally representative sample, survey results showed that CAM therapies were used more commonly than conventional therapies to treat self-defined anxiety attacks (51.9% vs. 40.8%) and severe depression (63.9% vs. 36.4%) (10).

Research on use of CAM specific to individuals with PTSD is emerging and suggests extensive utilization.

- A study in Veterans found that those with PTSD were 25% more likely than Veterans without PTSD to report CAM use, in particular, biofeedback and relaxation (2).
- In a sample of older Veterans, some diagnoses, including PTSD, were more common among CAM users.
- Results from the National Comorbidity Survey Replication (NCS-R) study indicated that 12.6% of individuals with PTSD accessed provider-administered CAM in the past year (e.g., chiropractor, acupuncture, self-help group). This is likely an underestimate, as measurement of CAM excluded self-administered therapies, such as herbal therapy, relaxation techniques, or homeopathy (11).
- One recent study looked at use of CAM specifically for the management of PTSD symptoms. In a nationally representative sample, 39% of those with PTSD indicated that they had used CAM in the previous year to address self-reported emotional and mental health problems (12).

Limited evidence for the effectiveness of CAM in PTSD

Despite the widespread use of CAM among individuals with PTSD, evidence to support the efficacy of CAM for treating PTSD is limited. The current empirical evidence for different CAM modalities in PTSD is described below. This is not an exhaustive list of potential applications of CAM in PTSD. It is limited to those CAM modalities that have been tested in controlled studies in patients with PTSD. For each modality, treatment effects on PTSD symptoms and key limitations are summarized.

Acupuncture

There has been one published randomized clinical trial of acupuncture as a treatment for PTSD. In that study, acupuncture was superior to waitlist and comparable to group CBT for PTSD in a non-Veteran sample (13). Although the effect size was large, the sample was small and there was no control for the nonspecific features of acupuncture (i.e., sham acupuncture). A recent systematic review described the

evidence for the effectiveness of acupuncture for PTSD as encouraging, but concluded that further trials are needed (14). Of note, five of the six studies examined in that review were conducted in China, where acupuncture is a mainstream treatment. Therefore findings may not generalize to the use of acupuncture as a CAM modality in Western medicine.

Meditation

Several studies have evaluated different meditative practices. A recent randomized controlled trial found that a six-week group intervention that provided training in mantram repetition (silent repetition of a spiritually meaningful word) in conjunction with treatment as usual (medication and case management) had a small to moderate effect on PTSD symptoms among Veterans with chronic PTSD as compared to treatment as usual alone. It is difficult to interpret the observed benefits in the mantram repetition group as due only to the intervention because there was no control for the nonspecific treatment effects, such as additional clinical contact, of the group-based mantram repetition intervention (15).

Niles et al. (2012) found that an eight-week mindfulness intervention was superior to psychoeducation, both delivered by telehealth. Those in the mindfulness condition showed greater improvement in PTSD symptoms, but these improvements were not sustained after treatment ended. It is not clear if the brief nature of the intervention or the modality of delivery (telehealth vs. face-to-face) affected the results (16). More recently, a randomized controlled pilot study compared Mindfulness Based Stress Reduction (MBSR) plus usual care to usual care alone. Both groups had improved PTSD symptoms at post-treatment, but between-group differences were not observed in intent-to-treat analyses, although the observed within-group effect were larger in the group that received MBSR in addition to usual care. As with the trial of mantram repetition described above, the nonspecific treatment effects of MBSR, such as additional clinical contact and group support, were not controlled for in this pilot study, which leaves the possibility that the few differences that were observed could be attributable to these other factors. (17)

Relaxation

Results are somewhat variable regarding the impact of relaxation on PTSD symptoms. Some studies have found no benefit associated with relaxation as compared to other PTSD treatments (19-21). Other trials have shown that relaxation is associated with clinically meaningful, albeit modest, changes in PTSD symptoms (22-24).

Yoga

One small RCT compared an adjunctive, 12-session yoga intervention to an assessment control in a sample of Veteran and civilian women (25). Although there were significant decreases in PTSD symptoms (specifically re-experiencing and hyperarousal symptoms) in both groups, there were no between-group differences. Both treatment arms required weekly, structured group interactions and general behavioral activation, which may have partially contributed to the similar levels of clinical change (small to moderate effect sizes) observed in both study arms.

Other CAM mind-body practices

Research is emerging with preliminary evidence for other CAM mind-body therapies, such as energy therapy for PTSD. An initial study of Emotional Freedom Techniques (EFT), in which the patient taps acupuncture points to stimulate energy meridians, compared the approach to Eye Movement Desensitization and Reprocessing ([EMDR]; n = 46, 19 of whom withdrew before post-treatment). EFT and EMDR did not differ statistically, and the effect size observed in both groups was small (26). More recently EFT plus standard care was compared to standard care alone in a sample of Veterans (n = 59), and EFT was associated with improved PTSD symptoms. Because of methodological limitations of these trials, strong conclusions about Emotional Freedom Techniques cannot be drawn from these findings (27).

Another recent study compared treatment as usual plus adjunctive healing touch and guided imagery to treatment as usual alone in an active duty sample who had recently returned from deployment and screened positive for PTSD symptoms (although PTSD diagnosis was not established). There were statistically significant decreases in PTSD symptoms for the group who received adjunctive healing touch plus guided imagery, but not for the treatment as usual control group (28). Here again, controls for the effects of usual treatment were not clearly specified, and adherence to between-session use of guided imagery was not assessed. These initial studies begin to demonstrate acceptability and feasibility of adjunctive CAM mind-body approaches, but do not provide conclusive information about efficacy.

Clinical implications

Based on the available evidence, it is difficult to draw firm conclusions about the efficacy of any type of CAM for PTSD. Acupuncture appears to have benefit but needs to be evaluated relative to sham acupuncture in order to control for the nonspecific benefits of treatment. Mindfulness-based meditation and relaxation appear to have modest benefit; little is known about the effect of other meditative practices and other CAM modalities.

Overall, the current evidence base does not support the use of CAM interventions as an alternative to current empirically-established approaches for PTSD, or as first-line interventions recommended within evidence-based clinical guidelines. CAM may be best applied as an adjunct to other PTSD treatments or as a gateway to additional services for patients who initially refuse other approaches.

VA facilities offer CAM

VA is committed to providing patient-centered care that includes evidence-based treatments for Veterans with mental health and behavioral health conditions. Recognizing the interest among many Veterans in being able to access CAM approaches, VA facilities may choose to provide supportive services in addition to established evidence-based therapies and medications. VA does not have specific policies or guidance related to the provision of CAM therapies for PTSD (29). However, VA is implementing mechanisms to the track use and effectiveness of CAM among VA patients, which will inform future clinical guidance, policies, and best practices for use of CAM modalities.

A 2011 survey of all 141 VA facilities (which includes health care systems) by VA's Healthcare Information and Analysis Group (HAIG) found (29):

- 89% of VA facilities offered CAM and 1% were in the process of developing CAM programs.
- The top 5 uses of CAM were for, in order: stress management, anxiety disorders, PTSD, depression, and back pain.
- CAM is used as an adjunctive therapy 72% of the time, but this was not reported as specific to PTSD or other disorders.
- 65% of facilities reported offering one of more types of CAM for PTSD.
- Another recent survey of all 170 VA specialized PTSD treatment programs found (30):
- 96% of the 125 programs that responded reported offering CAM.
- 88% reported using types of CAM in addition to guided imagery, progressive muscle relaxation, and stress management/relaxation, treatments that are considered to be CAM but are used in conventional mental health care.
- The types of treatments used most often in specialized PTSD programs were: mindfulness, stress management/relaxation, progressive muscle relaxation, and guided imagery, all of which were offered more than 50% of treatment programs.

VA's support of research on CAM for PTSD

VA's evidence Synthesis Program in the Health Services Research and Development Service conducted a comprehensive literature review of CAM for PTSD (31). In addition, VA's Office of Research and Development undertook a dedicated effort to evaluate CAM in the treatment of PTSD with the solicitation of research applications examining the efficacy of meditative approaches to PTSD treatment; the result was three clinical trials examining mindfulness-based stress reduction or mantram repetition. View VA's ORD information on CAM or clinicaltrials.gov for an updated list of CAM research projects supported by VA.

For more information

This factsheet is based upon a broader review of Complementary and Alternative Treatments for PTSD (PDF) in our PTSD Research Quarterly (RQ) newsletter.

References

1. Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life (1st Ed.)*. New York, NY: Hyperion.
2. Micek, M. A., Bradley, K. A., Braddock, C. H., et al. (2007). Complementary and alternative medicine use among Veterans Affairs outpatients. *Journal of Alternative and Complementary Medicine, 13*, 190-193. doi: 10.1089/acm.2006.6147
3. Baldwin, C. M. Long, K., Kroesen, K., Brooks, A. J., & Bell, I. R. (2002). A profile of military Veterans in the southwestern United States who use complementary and alternative medicine: Implications for integrated care. *Archives of Internal Medicine 162*, 1697-1704. doi: 10.1001/archinte.**********

4. McEachrane-Gross, F. P., Liebschutz, J. M., Berlowitz, D. (2006). Use of selected complementary and alternative medicine (CAM) treatments in Veterans with cancer or chronic pain: a cross-sectional survey. *BMC Complementary and Alternative Medicine, 6*: 34. doi: 10.1186/1472-6882-6-34
5. Smith, T. C., Ryan, M. A. K., Smith, B., Reed, R. J., Riddle, J. R., Gumbs, G. R., & Gray, G. C. (2006). Complementary and alternative medicine use among US Navy and Marine Corps personnel. *BMC Complementary and Alternative Medicine, 7*, 16-27. doi: 10.1186/1472-6882-7-16
6. White, M. R., Jacobson, I. G., Smith, B., Wells, T. S., Gacksetter, G. D., Boyko, E. J., & Smith, T. C. (2011). Health care utilization among complementary and alternative medicine users in a large military cohort. *BMC Complementary and Alternative Medicine, 11*, 27-38. doi: 10.1186/1472-6882-11-27
7. Goertz, C., Marriott, B. P., Finch, M. D., Bray, R. M., Williams, T. V., Hourani, L. L., Hadden, L. S., Colleran, H. L., & Jonas, W. B. (2013). Military report more complementary and alternative medicine use than civilians. *The Journal of Complementary and Alternative Medicine, 19*, 509-517. doi: 10.1089/acm.2012.0108
8. Barnes, P.M., & Bloom, B. (2008). *Complementary and alternative medicine use among adults and children: United States, 2007*. Hyattsville, MD: National Center for Health Statistics.
9. Eisenberg, D. M., Davis, R. B., Ettner, S. L., Appel, S., Wilkey, S., Van Rompay, M., & Kessler, R. C. (1998). Trends in alternative medicine use in the United States, 1990-1997: Results of a follow-up national survey. *Journal of the American Medical Association, 280*, 1569-1575. doi: 10.1001/jama.**********
10. Kessler, R. C., Soukup, J., Davis, R. B., Foster, D. F., Wilkey, S. A., Van Rompay, M. I., & Eisenberg, D. M. (2001). The use of complementary and alternative therapies to treat anxiety and depression in the United States. *American Journal of Psychiatry, 158*, 289-294. doi: 10.1176/appi.ajp.158.2.289
11. Wang, P. S., Lane, M., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2005). Twelve-month use of mental health services in the United States: Results from the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*, 629-639. doi: 10.1001/archpsyc.62.6.629
12. Libby, D. J., Pilver, C.E., & Desai, R. (2012a). Complementary and alternative medicine use among individuals with PTSD. *Psychological Trauma: Theory, Research, Practice, and Policy*, Advance online publication. doi: 10.1037/a0027082
13. Hollifield, M., Sinclair-Lian, N., Warner, T. D., & Hammerschlag, R. (2007) Acupuncture for posttraumatic stress disorder: A randomized controlled pilot trial. *Journal of Nervous and Mental Disorders, 195(6)*; 504-513. doi: 10.1097/NMD.0b013e31803044f8
14. 14. Kim, Y. D., Heo, I., Shin, B. C., Crawford, C., Kang, H. W., & Lim, J. H. (2013). Acupuncture for posttraumatic stress disorder: A systematic review of randomized controlled trials and prospective clinical trials. *Evidence Based Complementary and Alternative Medicine, 2013, Article ID 615857*, 12 pages. doi: 10.1155/2013/615857
15. Bormann, J. E., Thorp, S. R., Wetherell, J. L., Golshan, S., and Lang, A. J. (2013). Meditation-based mantram intervention for Veterans with posttraumatic stress disorder: A randomized trial. *Psychological Truama: Theory, Research, Practice, and Policy, 5*; 259-267. doi: 10.1037/a0027522.

16. Niles, B. L., Klunk-Gillis, J., Ryngala, D. J., et al. (2012). Comparing mindfulness and psychoeducation treatments for combat-related PTSD using a telehealth approach. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*, 538-547. doi: 10.1037/a0026161
17. Kearney, D. J., McDermott, K., Malte, C. A., Martinez, M. E., & Simpson, T. L. (2013). Effects of participation in a mindfulness program for Veterans with posttraumatic stress disorder: A randomized controlled pilot study. *Journal of Clinical Psychology, 69*, 14-27. doi: 10.1002/jclp.21911
18. Kearney, D. J., Malte, C. A., McManus, C., Martinex, M. E., Felleman, B., & Simpson, T. L. (2013). Loving-Kindness Meditation for posttraumatic stress disorder: A pilot study. *Journal of Traumatic Stress, 26*; 426-434. doi: 10.1002/jts.21832
19. Vaughan, K., Armstrong, M. S., Gold, R., O'Connor, N., Jenneke, W., & Tarrier, N. (1994). A trial of eye movement desensitization compared to image habituation training and applied muscle relaxation in post-traumatic stress disorder. *Journal of Behavior Therapy and Experimental Psychiatry, 25*, 283-291. doi: 10.1016/0005-7916(94)90036-1
20. EcheburÃºa, E., de Corral, P., Sarusua B., & Zubizarreta, I. (1996). Treatment of acute posttraumatic stress disorder in rape victims: An experimental study. *Journal of Anxiety Disorders, 10*, 185-199. doi: 10.1016/0887-6185(96)89842-2
21. Watson, C. G., Tuorila, J. R., Vickers, K. S., Gearhart, L. P., & Mendez, C. M. (1997). The efficacies of three relaxation regimens in the treatment of PTSD in Vietnam War Veterans. *Journal of Clinical Psychology, 53*, 917-923. doi: 10.1002/(SICI)1097-4679(199712)53:8(917::AID-JCLP17)3.0.CO;2-N
22. EcheburÃºa, E., de Corral, P., Zubizarreta, I., et al. (1997). Psychological treatment of chronic posttraumatic stress disorder in victims of sexual aggression. *Behavior Modification, 21*, 433-456. doi: 10.1177/01454455970214003
23. Marks, I., Lovell, K., Noshirvani, H., Livanou, M., & Thrasher, S. (1998). Treatment of posttraumatic stress disorder by exposure and/or cognitive restructuring: A controlled study. *Archives of General Psychiatry*, 55,317-325. doi: 10.1001/archpsyc.55.4.317
24. Stapleton, J. A., Taylor, S., Asmundson, G. J. (2006). Effects of three PTSD treatments on anger and guilt: Exposure therapy, eye movement desensitization and reprocessing, and relaxation training. *Journal of Traumatic Stress, 19(6)*, 19-28. doi: 10.1002/jts.20095
25. Mitchell, K. S., Dick, A. M., DiMartino, D. M., Smith, B. N., Niles, B., Koenen, K. C., & Street, A. (2014). A pilot study of a randomized controlled trial of yoga as an intervention for PTSD symptoms in women. *Journal of Traumatic Stress, 27*, 1-8. doi: 10.1992/jts.21903
26. Karatzias, T., Power, K., Brown, K., McGoldnick, T., Begum, M., Young, J., Loughran, P., Chouliara, Z., & Adams, S. (2011). A controlled comparison of the effectiveness and efficiency of two psychological therapies for posttraumatic stress disorder: Eye movement desensitization and reprocessing vs. emotional freedom techniques. *Journal of Nervous and Mental Disorders, 199*, 372-378. doi: 10.1097/NMD.0b013e31821cd262
27. Church, D., Hawk, C., Brooks, A. J., Toukolehto, O., Wren, M., Dinter, I., & Stein, P. (2013). Psychological trauma symptom improvement in Veterans using emotional freedom techniques. *The Journal of Nervous and Mental Disease, 201(2)*; 153-160. doi: 10.1097/NMD.0b013e31827f6351

28. Jain, S., McMahon, G. F., Hasen, P., Kozub, M. P., Porter, V., King, R., & Guarneri, E. M. (2012). Healing touch with guided imagery for PTSD in returning active duty military: A randomized controlled trial. *Military Medicine, 177(9)*; 1015-1021. doi: 10.7205/MILMED-D-11-00290
29. VA Healthcare Analysis and Information Group (2011). *2011 complementary and alternative medicine.* Washington, DC: Department of Veterans Affairs.
30. Libby, D. J., Pilver, C. E., & Desai, R. (2012b). Complementary and alternative medicine in VA specialized PTSD treatment programs. *Psychiatric Services, 63*, 1134-1136. doi: 10.1176/appi.ps.201100456
31. Strauss, J. L., Coeytaux, R., McDuffie, J., et al. (2011). *Efficacy of complementary and alternative medicine therapies for posttraumatic stress disorder*. Washington, DC: Department of Veterans Affairs.