

Complementary and alternative medicine for wellness: Burnout prevention for ourselves



JonFranco Barretto, Adam Cellurale, Christopher Chenelle, Eric Ding, Amanda Doodlesack, Estelle Hirsh
University of Massachusetts Medical School



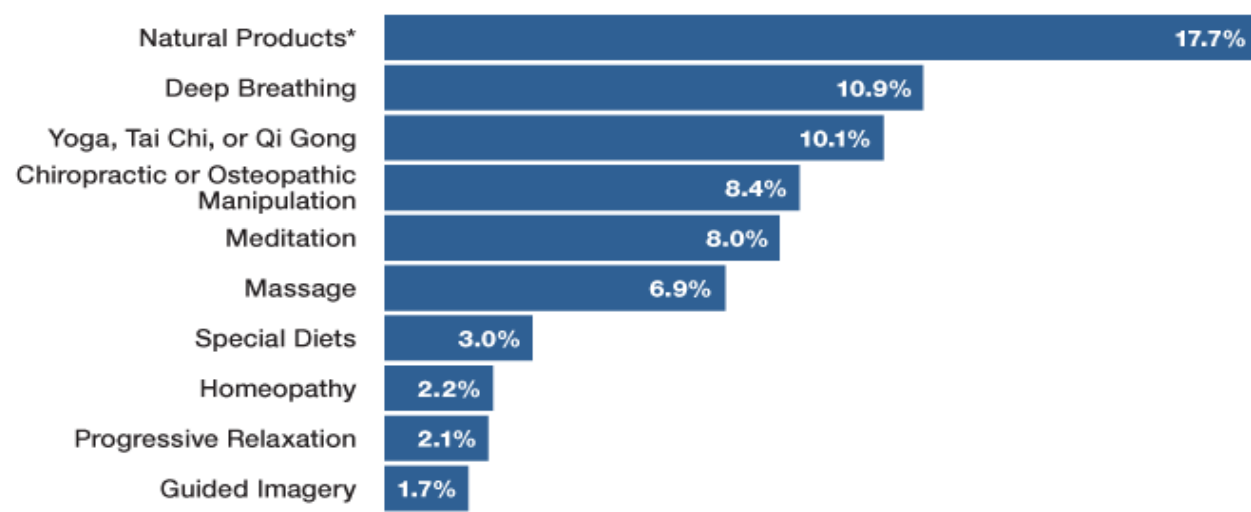
Introduction

Purpose: The purpose of this clerkship was to introduce students to various modalities of complementary and alternative medicine (CAM) available in the Worcester area. Students used the resources they learned about to facilitate a Wellness Week at the YWCA Central MA. These resources will also help students develop techniques for dealing with burnout in the medical profession.
Modalities: There are many modalities of CAM. We chose 5 that resonated with us most during the population clerkship.

1. Acupuncture- Used in traditional Chinese medicine, the practitioner uses needles on specific parts of the body to stimulate those areas
2. Massage Therapy – Enhances the person’s health and well-being, manually manipulating soft tissue for a variety of reasons.
3. Yoga – Originating in ancient India, this involves a physical, spiritual, and mental practice to control the mind and body.
4. Music Therapy – The use of music intervention based on clinical and evidence-based studies that are used to achieve individualized goals.
5. Meditation - Involves controlling and transforming the mind to handle stress, emotion, and many other feelings.

Outcome: We were able to learn various methods of CAM and were effectively able to implement them, some of them during Wellness week. We will be able to not only use these resources and modalities on ourselves, but also help out other healthcare providers and the community to deal with burnout.

10 most common complementary health approaches among adults—2012



*Dietary supplements other than vitamins and minerals.
Source: Center for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. 2009-2012. National Health Statistics Reports. No. 34. Hyattsville, MD: National Center for Health Statistics; 2013.

Music Therapy

Music Therapy is the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program. Music Therapy is an established health profession in which music is used within a therapeutic relationship to address physical, emotional, cognitive, and social needs of individuals. Research in music therapy supports its effectiveness in many areas such as: overall physical rehabilitation and facilitating movement, increasing people’s motivation to become engaged in their treatment, providing emotional support for clients and their families, and providing an outlet for expression of feelings.

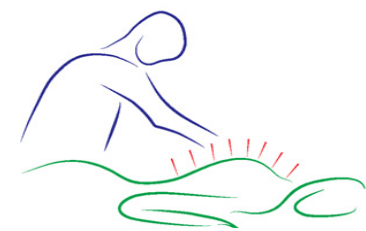
- (<http://www.musictherapy.org/about/musictherapy/>)
- Studies have shown that music therapy with adolescents and young children with psychopathology had a medium to large positive effect on clinically relevant outcomes (Gold et al 2004)
 - Studies have also shown that music theory has proven effective for the treatment of behavioral and developmental disorders (Gold et al 2004)
 - In a separate study involving music therapy and pediatric oncology patients, researchers found patients that participated in active music engagement through music therapy had a higher frequency of coping related behaviors (Robb et al. 2008)

Lessons learned/conclusions

- Music therapy has shown to play a vital role in patient recovery by improving patient outcomes especially with adolescent patients with psychopathologies and those with extended hospital stays
- Continued physician and healthcare provider education as to the function and role of music therapy in patient treatment is needed so that they may best serve their patients physical, emotional, and mental care.

Acupuncture

- Major constituent of traditional Chinese medicine that has been practiced for thousands of years (NCCIH, 2007)
- Practitioners use needles to penetrate the skin at specific points on the body (NCCIH, 2007)
- Widely used for chronic pain conditions including cancer pain, lower back pain, neuropathies, neck pain, and headaches (Nahin et al., 2016; NCCIH, 2007)
- Studies suggest that acupuncture is safe when practiced properly and can improve chronic pain (Nahin et al., 2016; Paley et al., 2015; NCCIH 2007)
- Benefits may be due to activation of the endogenous opioid system (Pomeranz & Chui, 1976; Han, 2004) and can persist for up to 12 months (MacPherson et al., 2016)
- Brain activation with acupuncture is similar but not identical to that seen with pain stimulation (Liu et al., 2013)



Massage therapy

The main goals of massage therapy are to calm the patient and promote well-being. This is achieved through several underlying physiological and psychological mechanisms. Massage has been shown to increase blood vessel dilatation, increase skin temperature, decrease heart rate, reduce respiratory rate. All of these are signs of relaxation of the mind and body. In addition, massage also has been shown to help with pain and promote healing by reducing lactic acid buildup in muscles, simulating the healing of connective tissues, and increasing lymphatic and venous circulation. (Corbin, 2005)

There are different styles and techniques of massage and licensed masseuses can vary their technique and pressure level depending on the patient’s condition and needs. Licensed oncology masseuses who specialize in massage for cancer patients are knowledgeable about how to provide safe and effective massage treatment depending on the patient’s diagnosis. Massage therapy uses a range of pressure levels on a scale from 1-5, 1 being lightest touch and 5 being heaviest pressure. In general for most cancer patients, a pressure of 1 is used predominantly, whereas for sports massages and deep tissue massage heavier pressures are used. (Sarah, Oncology Masseuse at Simonds-Hurd Complementary Care Center)

Several studies have shown that massage is indeed effective in helping patients to feel better. One example, a study of 230 randomized cancer outpatients who received a massage for 45 minutes weekly for 4 weeks, demonstrated patients had a decreased heart rate, respiration rate, lowered pain and reduced used of NSAIDS as well as decreased anxiety. (Post-White et al, 2003) Another large, retrospective observational study was conducted of pre-and post-massage symptom scores of 1,290 inpatients and outpatients over 3 years at Sloan-Kettering Cancer center. An average of a 50% reduction in symptoms including nausea, anxiety, fatigue, pain, and depression was seen in this group of patients. (Cassileth and Vickers, 2004)

Based on these studies, there is clear evidence supporting massage therapy as a beneficial complementary treatment to help patients and there is much more anecdotal evidence out there further supporting the use of massage.

Yoga

Yoga is an ancient practice rooted in Indian philosophy that includes movement and meditation. There are various styles of yoga but most typically include physical postures, breathing techniques, and meditation or relaxation. Hatha yoga is the most commonly practiced in the United States. Hatha yoga focuses on postures and poses as well as breathing exercises. In 2007, the National Health Interview Survey found that six percent of adults used yoga for its health benefits in the previous 12 months.

Yoga has been studied in many ways for different functional health benefits including increasing range of motion, mobility and balance. Yoga’s meditative effects have also been studied. Yoga’s unique quality of incorporating both movement and meditation has been proven to be helpful anxiety and stress reduction. In a 2009 study, the combination of yoga poses and supine rest in cyclic meditation decreased state of anxiety and increased memory scores more than rest in a classical yoga relaxation posture alone (Subramanya et al, 2009).



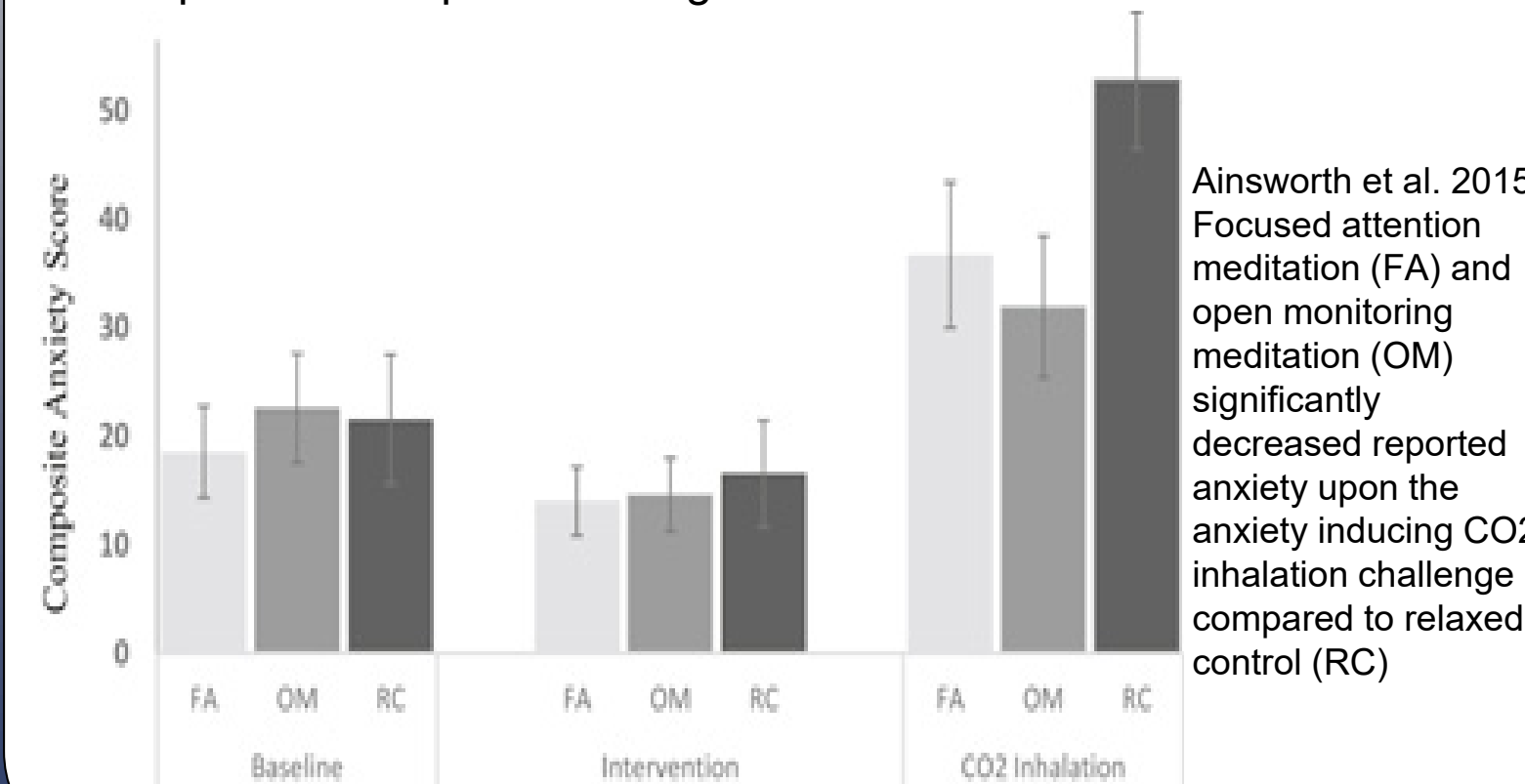
Meditation

Meditation encompasses a large variety of mind and body practices that increase physical relaxation and improve psychological well-being. These techniques often focus on interactions between the brain, mind, body, and behavior.

Meditation comes in many different forms, but most have these common elements:

- Practiced in a quiet location with minimal distractions
 - Comfortable posture
 - Specific focus of attention
 - Open attitude (let distractions come and go without judgment)
- Research on meditation has yielded numerous benefits on health:
- Pain reduction
 - Blood pressure
 - Irritable bowel syndrome
 - Mental health benefits – meditation has been shown to reduce stress, anxiety, depression, pain, and insomnia. There is also significant evidence for using meditation to aid with smoking cessation

In the context of cancer, meditation is especially helpful, since increased stress, anxiety, depression and pain are common symptoms from either the cancer itself or treatment. Amidst our opiod crisis, it is also extremely important to further understand the mechanisms and benefits of meditation as an alternative means to treat pain without pharmacological intervention.



Conclusions

The population clerkship was an amazing experience and we had the opportunity to interact with many professionals and learn various modalities of CAM to better help ourselves and the community. Moving forward, it is important for medical providers to have an open mind about integrating CAM in addition to traditional western treatments. Physicians increasingly recognize that patients use complementary therapies, but many are reluctant to approach the subject. Having a discussion about CAM treatments with patients may enhance the relationship between the physician and patient and improve compliance with conventional treatment. (Corbin, 2005) The Simonds-Hurd Complementary Care Center joined with UMass Memorial Health Alliance Hospital in Fitchburg provides a wonderful model of how complementary care, including massage, can be integrated. The Healing Gardens in Harvard, Mass., offers a variety of CAM for cancer patients such as yoga, music therapy, meditation, and so much more. Medical providers are knowledgeable about complementary treatments offered and refer patients to treatment right there in the hospital, which they believe their patients can benefit from. The collaboration between traditional and alternative medical providers is unique and remarkable. This model is something that all hospitals should strive towards in the future.



Healing Garden, Harvard MA

Acknowledgements

Lauren Woo, MS4 UMMS
 Brienne Carter, Virginia Thurston Healing Garden
 Lynn Gerrits, Simonds-Hurd Complementary Care Center
 Trish Jonason, Music Therapy, UMMS
 Heather-Lyn Haley, PhD, UMMS

Yevgeniya Harrington, MS4 UMMS
 Suzana Makowski, MD, UMMS
 Molly Jackson, Flowforms Yoga
 Jennifer Fournier, RD, LDN, UMMS
 Patty Flanagan, YWCA

References

<http://www.musictherapy.org/about/musictherapy/>
<https://nccih.nih.gov/health/acupuncture/introduction>
<https://www.mhahd.edu/school-of-massage-therapy/massage-therapy-definition/>
<https://en.wikipedia.org/wiki/Yoga>
<https://medshdcenter.com/medshd/meditation>
 Robb, Sheri L. "The effect of therapeutic music interventions on the behavior of hospitalized children in isolation: developing a contextual support model of music therapy." *Journal of Music Therapy* 37.2 (2000): 118-146.
 Robb, S. L., Clair, A. A., Watalabe, M., Monahan, P. O., Azzouz, F., Stouffer, J. W., ... & Nelson, K. (2008). Randomized controlled trial of the active music engagement (AME) intervention on children with cancer. *Psycho-Oncology*, 17(7), 699-708.
<https://nccih.nih.gov/health/acupuncture/introduction>
 National Center for Complementary and Integrative Health (2007). *Acupuncture: In Depth*. NCCIH Pub No.: D404. Retrieved October 27, 2016, from <https://nccih.nih.gov/health/acupuncture/introduction>
 Nahin, R. L., Boineau, R., Khalsa, P. S., Stussman, B. J., & Weber, W. J. (2016, September). Evidence-based evaluation of complementary health approaches for pain management in the United States. *In Mayo Clinic Proceedings* (Vol. 91, No. 9, pp. 1292-1306). Elsevier.
 Paley, C. A., Johnson, M. I., Tashari, O. A., & Bagnall, A. M. (2015). *Acupuncture for cancer pain in adults*. The Cochrane Library.
 Pomeranz, B., & Chui, D. (1976). Naloxone blockade of acupuncture analgesia: endorphin implicated. *Life sciences*, 19(11), 1757-1762.
 Han, J. S. (2004). Acupuncture and endorphins. *Neuroscience letters*, 361(1), 258-261.
 MacPherson, H., Vertosack, E. A., Foster, N. E., Lewith, G., Linde, K., Sherman, K. J., ... & Acupuncture Trialists' Collaboration. (2016). The persistence of the effects of acupuncture after a course of treatment: A meta-analysis of patients with chronic pain. *Pain*.
 Liu, G., Ma, H. J., Hu, P. P., Tian, Y. H., Hu, S., Fan, J., & Wang, K. (2013). Effects of painful stimulation and acupuncture on attention networks in healthy subjects. *Behavioral and Brain Functions*, 9(1), 1.
<https://www.mdpi.org/journal/ijer/2015/Research%20and%20Clinical%20Trials/Cancer%20Control%20Journal%20V12n3/158.pdf>
 Cortin, L. Safety and efficacy of massage therapy for patients with cancer. *Cancer Control*, 2005, 12(3):158-164.
 Post-White, J., Kinney, M.E., Savick, K. et al. Therapeutic massage and healing touch improve symptoms in cancer. *Integr Cancer Ther*. 2003;2:332-344.
 Cassileth BR, Vickers AJ. Massage therapy for symptom control: out-come study at a major cancer center. *J Pain Symptom Manage*. 2004;28:244-249.
 Subramanya Paloor, Teles, Shiley. Effect of two yoga-based relaxation techniques on memory scores and state of anxiety. *BioPsychoSocial Medicine* 2009, 3:8 doi:10.1186/1751-0759-3-8.
<https://nccih.nih.gov/health/meditation/>
 Fattley, L., Taylor, M. Meditation in medical practice: a review of the evidence and practice. *Prim Care*. 2010;37(1):81-90.
 Goyal, M., Singh, S., Sibinga, EM, et al. Meditation programs for psychological stress and well-being: a systematic review and meta-analysis. *JAMA Intern Med*. 2014;174(3):357-68.
 Sampaio CV, Lima MS, Ladeira AM. Meditation, Health and Scientific Investigations: Review of the Literature. *J Relig Health*. 2016; 15(1):11-22.
 Ainsworth B, Marshall JE, Menon D, et al. Evaluating psychological interventions in a novel experimental human model of anxiety. *J Psychiatr Res*. 2015;63:117-22.
<http://simondshurd.com/wp-content/uploads/2014/03/ccslogo.png>
http://www.healinggardens.net/images/header_logo.jpg
<http://www.umassmed.edu/content/assets/2075/801114276a046564d0311311ums-logo.jpg>