

## Guest Editorial

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# Complementary and Integrative Medicine in Healthcare

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The complexities of many diagnoses (such as post-traumatic stress disorder), modern medicine, the opioid epidemic, and of peoples' wanting to be healthy through more 'natural' means has given rise to increasing interest in Complimentary and Integrative Medicine (CIM). The use of the term Complementary and Alternative Medicine (CAM) has been used for years. However, the term is evolving in recognition that traditional U.S. medicine (western medicine) is necessary and 'alternative' medicines are not alternatives at all. Instead these techniques need to be used in a complementary fashion with western medicine, integrated with one another, and assimilated into a patients' health and wellness 'prescription'.

Indeed, there are few, if any, universally accepted single solutions for treating physical, emotional or cognitive illnesses and injuries. There are not simple solutions or cure-alls available and patients are seeking help outside the customary medical community and outside the accustomed medical practices.

As more complimentary practices are developed and considered for use, appropriate understanding of the techniques, research on their effectiveness, consideration of 'who is qualified to practice and teach' them, and evaluation of why a technique may work become paramount. We want to offer practices that work, not just theories, concepts, and anecdotal evidence.

This special issue addresses mind-body interventions, mindfulness meditation and the background sounds and music that enhance meditation, yoga, energy psychology through Emotional Freedom Techniques and Eye Movements, and the exploration

of new technologies for diagnosing traumatic brain injury. While this is an eclectic group of interventions, we sincerely hope these types of research will continue to blossom and identify what works for whom. Perhaps the research will even yield prediction models to help patients and practitioners in selecting what may be the best alternative for improving the health of an individual. That is the goal, isn't it? Providing the care that works best for the individual involved is patient-centered care, but without research and application, we cannot make that happen.

Addressing the articles, as they appear in this Special Issue, the first article by Liu and Rice focuses on the type of music that is both preferred and is conducive to maintaining heart rate coherence using the HeartMath emWavePro. Interestingly, the results differed for novices vs. experienced meditation practitioners, and a single type of music rose above the others (of four sound/music types, and 7 selections). This type of music may also be conducive to providing relaxation, especially in patient waiting rooms, but that will entail more research!

Complimentary practices are also comprised of augmented or artificial intelligence and decision aids. The second article addresses the use of four technologies examined for their potential role in assisting with the identification of mild/moderate traumatic brain injury, conducted by Rice and colleagues. Examining data from a balance platform, neurocognitive assessment battery, a Brain Acoustic Monitor (recording and comparing blood flow acoustic wave forms), and health-related Voice Analysis, a prediction model was developed that increased diagnostic accuracy in terms of specificity and sensitivity. As many new devices

are developed that claim to improve health and wellness, and reduce stress and anxiety (for example), they too must be fielded for effectiveness, preferably through vetted research that identifies some uniformity in positive outcomes.

The next article by Schmid and colleagues, addresses the use of yoga with patients suffering from pain, assessing their occupational performance improvements, activity engagement, and depression. While more research may be necessary, this early article examines the use of yoga within an Occupational Therapy clinical practice, thus bringing a complimentary practice into an established professional practice. In turn, the question of qualifications also arise (who can teach, use what within their practice modalities).

Following the theme of Occupational Therapists' use of complimentary practices, Provancha-Romeo and colleagues address the use of mind-body interventions with an intensive care patient, in a case study. Case studies are often conducted at the initial stages of gathering data on the effectiveness of an intervention. While they do not provide information on the generalizability of the intervention, they allow development of intervention techniques and can provide initial information on singular efficacy, acceptability, and whether the technique 'does no harm'. The next stages for research are suggested within the article.

The article by Nicosia, Minewise, and Freger focuses on a subset of energy healing, known as energy psychology with specific attention given to

the use of Emotional Freedom Technique (EFT) and Eye Movement Desensitization and Reprocessing (EMDR) with individuals' experiencing symptoms of Post-Traumatic Stress Disorder. This study is a case study of a survivor of the attack on the Twin Towers in New York City. Bringing the individual issues/situation, and the use of EFT and EMDR into focus for the reader helps introduce theoretical and practical solutions.

The topic of mindfulness arises again in the final article by Hilton and colleagues. This time with several concentration areas, including workplace wellness and conducting systematic reviews of randomized controlled trials of mindfulness interventions. Creating a map of the use categories for mindfulness meditation (aka. overall health, eating disorders, chronic illness, etc.), and annotating the size of the available literature for each can help practitioners and administrators assess the efficacy of mindfulness within intervention categories.

We feel we are at the early stages of burgeoning investigations and use of complimentary medicines with this Special Issue. We have high hopes this issue will encourage others to methodically investigate complimentary and integrative medicine techniques alone or in combination with long-established interventions. Knowing what works, when, with whom, and why are key to providing effective health care. We welcome you to join us in the most important venture!