

# INTERVENTIONAL MEDICINE

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Energy Medicine is a term used at many gatherings these days, though the terms “energy” and “medicine” seem to have gone undefined! Many prominent researchers in this field including Dr. Larry Dossey have questioned the appropriateness of these terms earlier;<sup>1</sup> unfortunately no concerted effort has come to bear in examining the terms. Similarly, how do we define a method or procedure “interventional?” Is meditation (a term used without much discernment) an intervention? If that is so, all holistic procedures are interventional. If you teach a child to walk, is it interventional? Should we let the child learn to walk on its own, even if takes five years? How about language competency? Is school education interventional?

Obviously, there is a fine line between intervention and learning strategies. If a mechanism is not functioning properly, we need to intervene to set it right. If we design and build a machine to achieve certain goals, then it is innovation. We take the working of the machine to a new height. Rehabilitation is relearning a lost function and hence it may not be termed interventional. Learning a new task—like playing baseball—is simply learning. Biofeedback is learning; meditation is learning to look into one’s own mind. These may not be classified as intervention. Acupuncture could be termed intervention; however, tai chi is learning to move energies within one’s own body and is not interventional.

Synonyms to intervention are intrusion, interference, imposition and a few others. It is obvious from the discussion above that interfering with the function of a system is intervention that could be social (study of anthropology, for instance), individual (psychological testing) or even cellular (biochemical inputs). Strategies that we are taught new or anew (driving a car or learning

to walk after an accident or trauma) could be classified as educational or learning. Thus, many rehabilitation techniques, physiotherapy, biofeedback, meditation and others could be classified as learning modes.

**F**urther, anything that is administered by another person (medical, rehab or healing professionals) may also be termed inter-vention since it is from outside the recipient's body. In contrast, anything that is done within oneself (yoga, tai chi, meditation, biofeedback, etc.) could be classified as intra-vention. I hope these words are not awkward in technical use in presentations and writings. I am sure others will come with better terms; this piece is only to induce others interested in arriving at a consensus so that a consistent terminology emerges in the field of Energy Medicine.

Evidence-based medicine has come to be the norm for testing procedures in all areas of therapy and rehabilitation. To the extent psychology and physiology are non-convergent, the holistic therapies and biochemical medicine tend to be non-convergent also. Some attempts are already in the making, beginning to identify molecules of emotions and electrochemical responses to emotions.<sup>2,3</sup> However, when a complete understanding of biochemical-psychological-neurochemical-electrical interactions emerges, there is likely to be much less misunderstanding between different modes of treatment. A holistic treatment could be the first line of defense for most psychosomatic disorders complemented by trauma medicine (the current biochemical medicine) treating all problems of acute nature. A balance in approach could be the ultimate benefit to the patient. Meanwhile, (re)search and elucidation of both mechanisms and interaction of psycho-physiological correlates are required even if it takes much effort, time and infrastructure in terms of money and people working in this area.

The first paper titled *The Human Energy Field and the Invisible Universe* by Harry Oldfield was a Keynote Address in the last Annual Conference of the Society. The invisible universe is the subtle energy domain that Oldfield has worked with for the past four decades. He calls this a matrix of all living organisms including humans. The lecture was complemented by informative slides that unfortunately could not be included here. An Appendix at the end of the paper provides an overview of many innovations by Harry Oldfield and gives a unique view of his contributions in the field of subtle energy.

The next paper is by Jonathan Cowan, a long time researcher in mind-body interface using EEG and developer of a new system working with high frequency EEG. The paper is titled *Thought and Mind as the Projection of Mentabolomorphic Fields by the Brain: A Proposed Mechanism*. This interesting model is extending those suggested by Karl Pribram and others. Cowan proposes coherent “laser-like” radiation in the cortico-thalamic pathways which could provide a holographic memory trails in the brain matter. He further posits: “These fields appear to have some characteristics which have also been proposed for the properties of the mind. They are holistic, far reaching transformations of brain activity, which may also involve interaction with a larger, more encompassing field.” Further, it is the opinion of this Editor that the coherency that is required for “laser” effect could come from liquid crystal characteristics of many tissues in the body including the brain. The liquid crystals may facilitate laser-like radiation due to their repetitive and uniform structure. Models need elaborate testing and confirmation; it is hoped that the model proposed here will be tested as we progress in our understanding of mind/body coalition.

**T**he next paper is titled *Psychological Assessment of Buddhist Taiwanese Chanting: A Case Report*, by Lin, Peper and others. The paper examines physiological measures such as an EMG, heart rate, respiration and related parameters. How is mantra chanting reflected in these physiological parameters? The chanting consists of reading a text, then closing the eyes and chanting mentally followed by reading a neutral text with base line comparisons. The heart rate and respiration takes the course as anticipated (higher than resting while reading, lower than resting while eyes closed meditation). The authors state that:

Most likely, the major mechanism that underlies the change in subjective experience is not the (sinus rhythm) entrainment but the mental concentration on the sutras without experiencing distracting thoughts and feelings. It could be hypothesized that the mantra chanting, evolved in countries with long histories of intentional breath control practices for cultivation of spiritual states, would have a similar intrinsic pattern. More research comparing diverse systems and practices would be valuable, with an expanded focus on not just physiological.

Unfortunately, the authors have not derived HRV—heart rate variability—(heart rate is already being monitored), since HRV will provide a good basis to distinguish parasympathetic from sympathetic dominance.

The last paper in this section is titled *Photoplethysmography: A Non-invasive Tool for Possible Subtle Energy Monitoring During Yogic Practices* by M. Mukunda Rao and R. Ramana Ram. This is a non-invasive method in which reflections of light of appropriate wavelength are used to obtain relative changes in microcirculation within a specific area beneath the skin. In this paper, the authors have used optical sensors on earlobe and processed the signals received for Heart Rate Variability and power spectrum. The signal processing provides information about changes in microcirculation, the frequency components in the waveforms, and further, possible parasympathetic/sympathetic balance as a person observes yoga practices. Since microcirculation is related to ki or prana, it is possible that the changes reported could be correlated to changes in prana at chakra points. It is too early to draw definitive conclusions; however, with paucity of instrumentation, this is a simple method that could present a new monitoring method of subtle energies.

**M**odels abound in the area of subtle energies and the models are as good as the information regarding the nature of interaction of these energies with the physical world. It is important to keep in mind the words of the renowned French anthropologist, Dr. Claude Levi-Strauss:

Great care should be taken to distinguish between the observational and the experimental levels. To observe facts and elaborate methodological devices which permit the construction of models out of these facts is not at all the same thing as to experiment on the models. By experimenting on the models we mean the set of procedures aiming at ascertaining how a given model will react when subjected to change and at comparing models of the same or different types. . . . It is obvious that the best model will always be that which is true, that is, the simplest possible model which, while being derived exclusively from the facts under consideration, also makes it possible to account for all of them.<sup>4</sup>

The cover art is a contribution from Ben Morea Eagle titled *The Cosmic Dream*. Spirals are the most common configurations in the universe; a circle is a two dimensional spiral. The artist has portrayed the circles in translucent colors, with a shining blue (is this the blue planet in the solar system?) adorning each unipolar circle. The delicate colors balance the blue in a subtle dichotomy, a contrast that strikes the sensitive eye. The poem by the artist provides a backdrop for the art: all is motion. Without motion, we perceive nothing;

there is no energy without motion and everything is dark and void. We thank the artist for sharing this art and the poem with our readers.

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#### REFERENCES AND NOTES

1. Larry Dossey, Healing, Energy and Consciousness: Into the Future or a retreat to the Past, *Subtle Energies* 5,1 (1994), p. 1-34.
2. Candace B. Pert, *Molecules of Emotions: Why You Feel the Way You Feel* (Scribner Books, New York, NY, 1997).
3. William Tiller, *Science and Human Transformation: Subtle Energies, Intentionality and Consciousness* (Pavior Publishing, Walnut Creek, CA, 1997).
4. Claude-Levi Strauss, *Structural Anthropology* (Anchor Books, New York, NY, 1967), p. 272.

