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Bioenergetics: A New Science of Healing

KEN SMITH

BIOENERGETICS IS THE FIELD OF THE FUTURE. As the term indicates, it deals with biology (the study of all life) and energy (perhaps the underlying substance of all life) and where these two intersect. *The American Heritage Dictionary*, 3rd ed., defines bioenergetics in part as “the study of the flow and transformation of energy in and between living organisms and between living organisms and their environment.” This covers quite a bit of ground. Indeed, the meeting area between biology and energy is vast, perhaps going beyond imagination as virtually every area of human activity and every nook and cranny of our world are touched by it.

The field of biophysics, for instance, evolved as a natural result of physicists furthering their research into all areas where energy plays a role. This discipline has grown to include such topics as cellular communication, neurobiology, and the role of photons within the human body. The new field of energy psychology explores models of how the psyche works at an energetic level. The mystic’s pronouncement that “the world is one” is being scientifically backed by quantum physicists theorizing that a “unified field” connects everything. And the world of technology is ushering in devices that are revealing, measuring, and altering biologic energy fields.

As a result of these types of investigation, we are rapidly increasing our appreciation of the fact that energy fields cause a wide variety of physical occurrences. In his landmark text *Energy Medicine: The Scientific Basis of Bioenergy Therapies* (Churchill Livingstone Press, 2000), James Oschman, PhD, points out that the resonant properties of DNA have already been documented, as has

DNA’s response to pulsing magnetic fields. He also describes an extracellular matrix found throughout the body and its multifaceted relation to energy fields. This matrix “exerts specific and important influences upon cellular dynamics, just as much as hormones and neurotransmitters.”

THE ORIGINS

Without necessarily being called such, bioenergetics has deep historical roots. Acupuncture, for instance, has been practiced in China for at least two thousand years. At the heart of acupuncture’s healing model is the flow of energy through meridians, channels that create an energetic circuit throughout the body. This flow is not unlike the movement of blood through the circulatory system, of which proper regulation is required for health. Meridians are also the biological connection with the notion of *chi*, or life energy. In this view, disease is viewed as a lack of harmony or disruption in *chi*. Needles are slightly inserted into the skin along the channel routes in order to restore and regulate the natural flow of energy. Since acupuncture is minimally invasive, adverse side effects are also minimal—an important consideration given the toll that the side effects of modern pharmaceuticals often produce.

Chakras are described as forming yet another energetic circuit within the body. In a basic view, chakras are energy centers traversing the length of the spine, each accounting for a different mode of perception. The root chakra at the base of the spine, for instance, is typically viewed as relating to physicality, whereas the crown chakra located at the top

of the head relates to spiritual orientation. Many of the laying-on-of-hands practices, such as Reiki, lie within this framework, which was also developed in Eastern cultures.

A more recent model of energetic healing is homeopathy (see *Iris Bell's piece on p. 22*). Homeopathy is credited with reducing the suffering experienced during the infectious disease plagues that swept Europe during the 1800s. Yet toward the end of that century, as the scientific models of biology and chemistry gained popularity, homeopathy began to be viewed by many as quackery. Reflecting a revival of interest in the United States, however, the National Center for Complementary and Alternative Medicine (NCCAM), part of the National Institutes of Health, is now providing grants to scientifically evaluate homeopathy. In Europe the practice of homeopathy is returning to its earlier popularity, typified by such centers as the Paracelsus Clinic in Lustmühle, Switzerland, which uses homeopathy as a core approach to treating cancer and other illnesses from a biological medicine perspective (see www.paracelsus.ch).

HOW THE BODY WORKS

The term “bioenergetics” was initially defined as a form of psychology using kinesiology to assess energy levels and flow. However, by revealing connections between cognition, energy, and behavior, and by placing the concept of movement and blockages of energy squarely in the center of why disorders manifest, clinical psychologist Fred Gallo showed how bioenergetics has grown to be a more sophisticated discipline (see *Energy Psychology*, CRC Press, 1998).

Bioenergetics has also been described as the study of how cellular metabolism (choice of fuel, energy production, storage, and consumption) governs the interaction between cells. Scientists at leading universities are relying on this model to demonstrate the role of energetic flow and transformation in disease and healing processes. The University of Colorado at Colorado Springs's Institute of Bioenergetics, for example, is building “a multidisciplinary approach to understanding cellular metabolism and cellular communication with the intention of treating or curing serious diseases.” The area of cellular *signaling* (how cells communicate) is also evolving from studying physical processes (such as a hormone docking with a receptor cell, which in turn triggers a cascade of events

into motion) to exploring whether the “first cause” of a physical cascade is energetic in nature.¹

Yet another area of investigation is unfolding in the laboratory of John McMichael, PhD, immunologist, virologist, and founder of Beech Tree Labs and The Institute for Therapeutic Discovery. Decades of research in the laboratory and in preclinical studies have shown the value of a class of formulations that use physiologic levels of naturally occurring molecules to address a wide spectrum of disorders. The dosage is far above those used in homeopathy but far lower than those used in current pharmaceuticals, pointing the way to an entirely new platform of looking at how the body works.

After McMichael's therapy for depression demonstrated efficacy, scientists at the University of North Carolina at Chapel Hill discovered that it didn't act through the biopathways typically associated with modern antidepressants. These findings produced speculation that the agent might work through a form of energetic communication telling the body to restore balance. McMichael himself holds open the possibility that there may be an energetic circuit comprised of receptors in cells or in the extracellular matrix—perhaps photons—that play a role in the restoration of homeostasis, the body's natural harmony.

Also on the cutting-edge of bioenergetics is “nonlocal” healing, where well-focused intent by an individual or a group may significantly affect the health of someone thousands of miles away. Such a modality is often placed outside of a scientific or biologic framework. As Sanjay Gupta, MD, recently said on a CNN news report, the positive effects of remote prayer on healing can't be explained scientifically, only spiritually.² And yet the mechanism by which such healing occurs—whether through dowsing, prayer, or other means—has been studied scientifically by Larry Dossey and by Marilyn Mandala Schlitz at the Institute of Noetic Sciences, with promising, if not always consistent, results.

EMERGING TECHNOLOGIES

One of the challenges to more thoroughly evaluating the efficacy of energy therapies and further the field is the absence of instrumentation that can assess what is actually taking place inside the body. Scientific tools to measure chakras, meridians, and other energy systems have been lacking. Modern physics is beginning

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to address this problem, however, with a variety of powerful devices.

At the leading edge of this type of technological innovation is the SQUID (Superconducting Quantum Interference Device) magnetometer, a highly sensitive mechanism that can map biomagnetic fields produced by physiological processes within the body. Its development was spearheaded by J. E. Zimmerman, once a Ford Motor Company scientist. SQUID was the first practical electronic instrument to detect interference among the energy waves of matter.

Another invention originated with Konstantin Korotkov, a physics professor at Russia’s St. Petersburg State Technical University. An expert in the field of bioelectrography, Korotkov has developed a computerized device that captures what he refers to as “gas discharge visualization” (GDV). Based on Kirlian photography, the GDV device allows the real-time observation of human energy fields and so can help one observe the changes in energy in a variety of situations, including when certain therapies are administered.

University of Virginia research psychologist Justine E. Owens, PhD, has experimented with GDV for several years and considers it to be a state-of-the-art instrument because of its ability to quantify information. Electrodes are attached to a subject’s fingers, and the resulting information is fed into different software modules. Meridian activity or the rebalancing of chakras, for example, can then be charted, although Owens admits that there is little data supporting the scientific validity of the GDV chakra software program.³ Investigations are now underway, though, to develop computer programs that will enable an accu-

rate assessment of chakras.

And speaking of computer programs, there’s the EPFX/SCIO (Electro Physiological Frequency Xrroid/Scientific Consciousness Interface Operating) system, a controversial but possibly groundbreaking software-hardware device developed by former NASA scientist and independent researcher Bill Nelson and based on the principles of biofeedback and artificial intelligence. The device attaches to an individual via straps on the ankles and wrists, along with a headband. It then scans the body, similar to how a virus scan works on your computer, and looks for—and apparently corrects—a wide range of unhealthy energetic patterns.

AN ENERGETIC FUTURE

MIT Professor Emeritus Thomas Kuhn writes in his groundbreaking book *The Structure of Scientific Revolutions* (University of Chicago Press, 1996) that a crisis is needed, such as the plagues of the nineteenth century, for scientists to get out of their own way in order to allow new perspectives of inquiry to emerge. Kuhn also argues that a different kind of crisis is emerging because we still lack answers to a multiplicity of modern problems. Will the escalating cost of health care and the debilitating side effects from many drugs, for example, provide the opening for new fields such as bioenergetics to take hold?

The healing therapies of bioenergetics—which are often referred to as “energy medicine”—are quite diverse, have deep historical roots, and comprise an emerging


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multi-disciplinary arena in the modern world of science. At the core of all of these areas is the idea that the state of one's energy manifests illness or health and that the management of energy is the determining factor in maintaining or restoring homeostasis.

If energy is in any way a determinant for biological actions and reactions, then new models, new variables for study, new technologies, and new approaches to healing and wellness will sprout—as they are already beginning to do. Oschman, a leader in this field, says, “We are in a period of dramatic change in the health-care system. Energy medicine has a huge role to play in this process because conventional Western medicine is the only medical system in history that has virtually ignored energetics. Energetic concepts are part of nearly all of the complementary and alternative therapies that the public is enthusiastically moving toward.”

Quoting Albert Szent-Györgyi (1937 Nobel Prize winner for his discovery of vitamin C), Oschman

continues, “In every culture and in every medical tradition before ours, healing was accomplished by moving energy.”⁴ As physicist Milo Wolff points out, “Nothing happens in nature without an energy exchange. Communication or acquisition of knowledge of any kind occurs only with an energetic transfer. There are no exceptions. This is a rule of nature.”⁵ 

Notes

1. James Oschman, *Energy Medicine: The Scientific Basis* (Edinburgh: Churchill Livingstone Press, 2000) 197.
2. CNN, July 10, 2005.
3. Justine E. Owens, in telephone discussion with the author, May 19, 2005.
4. James Oschman, email interviews with the author, May 19, 2005, and June 11, 2005.
5. Milo Wolff, email interview with the author, October 15, 2005.

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