

Nonconventional Modalities

by James Lake, MD

Contemporary Western psychiatry subsumes diverse perspectives on the so-called mind-body problem, but there is still no consensus on a single best or *most complete* explanatory model of mind-body interactions.¹ Western psychiatry describes brain function in terms of dynamic properties of neurotransmitters and electromagnetic energy fields. Emerging research findings suggest that consistent relationships may exist between particular patterns of brain neurotransmitter activity or electromagnetic activity and specific psychiatric symptoms; however, determining whether measurable biological or electromagnetic factors are causes or effects of psychopathology is often problematic.

In Western allopathic medicine, mainstream concepts from chemistry and biology provide the theoretical foundations for explanatory models of illness phenomena. Disparate systems of medicine postulate the existence and involvement of different forms of energy and information in health, illness, and healing. It has been suggested that complete understanding of mind-body phenomena—including mental illness—will probably require a convergence of classical and non-classical paradigms.² For example, light exposure therapy is known to have therapeutic effects on melatonin and neurotransmitter activity that translate into improved mood—but emerging evidence suggests that light interacts with brain dynamics on subtle levels possibly consistent with quantum mechanics or quantum brain dynamics.³

Unfortunately, conventional allopathic theory and clinical practices have failed to adequately address medical and psychiatric illnesses in the United States and other developed countries. In the United States, 15% of the gross national product (about \$1.6 trillion) is spent on health care, yet drug reactions, infections, surgical errors, and other complications of conventional medical care are among the leading causes of death and morbidity.^{4,5} Broad issues that interfere with the capacity of allopathic medicine, including psychiatry, to provide adequate health care include restrictions of treatments covered under managed

care, Medicare, and private insurance contracts; growing dissatisfaction with the quality of conventional medical care because of concerns about efficacy and safety; and the increasing cost of care for the average consumer.⁶

The shortcomings of conventional allopathic medicine suggest that Western medicine does not provide an adequate explanatory model for health and illness phenomena and invite serious consideration of promising non-allopathic modalities. Recent years have seen an increasing openness of Western culture, including Western medicine, to non-Western healing traditions. There has also been a growing demand for more meaningful and more personal contact with medical practitioners, which is often difficult to achieve during brief appointments in contemporary Western health care settings. Thus, both scientific reasons and social trends have contributed to the increased acceptance of non-allopathic healing traditions.

Sixth in a Series

Future studies on healing intention, meditation, and prayer will use functional brain imaging to elucidate the role of consciousness in health and healing.

Growing numbers of individuals who see Western-trained physicians seek concurrent treatment from alternative practitioners, including Chinese medical practitioners, herbalists, homeopathic physicians, and energy healers.⁷ People who are critical of Western biomedicine as currently practiced are turning increasingly to nonconventional therapies for the treatment of mental health problems as well as other medical problems.^{6,8} About 72 million US adults used a nonconventional treatment in 2002, representing about 1 in 3 adults.⁹ If prayer is included in this analysis, almost two-thirds of adults use nonconventional therapies.⁷

Anyone with a psychiatric disorder is significantly more likely than the general population to use nonconventional therapies.^{10,11} One-third of individuals who report a history of gener-

alized anxiety, mood swings, or psychotic symptoms use nonconventional approaches to treat their symptoms.¹⁰ Furthermore, two-thirds of severely depressed or acutely anxious individuals use both conventional and nonconventional treatments at the same time.¹²

The findings of 2 large patient surveys also suggest that most persons who have mental health problems use conventional medications and nonconventional approaches concurrently.^{10,13} According to one large physician survey, about half of US physicians believe that acupuncture, chiropractic, and homeopathy rest on valid medical principles, and they frequently refer patients to nonconventional practitioners for these therapies.¹⁴

Meeting scientific criteria

Many nonconventional therapies meet Western scientific criteria for efficacy and effectiveness but are not used as mainstream treatments because of social or political reasons. Compared with mind-body or “ener-

Placebo effect

While some nonconventional therapies are probably no more effective than placebos, the same argument can be applied to conventional biomedical treatments. The placebo effect is widely accepted among conventional Western medical practitioners as playing a significant treatment role in both medical and mental health problems.²¹ For example, meta-analyses of controlled trials suggest that conventional drugs used to treat major depression and other psychiatric disorders are probably no more effective than placebos.²²⁻²⁴ Limitations of the significance of research findings related to the role of placebo effects in treatment response are shared concerns for conventional and alternative medical practitioners. The controversy over placebo effects is complicated by the more recently described “nocebo” effects—adverse effects associated with placebo—which may affect as many as 40% of those who take a placebo.²⁵

These findings suggest that many conventional and nonconventional treatments probably have nonspecific effects that are either beneficial or detrimental to health that are difficult to quantify, including general effects on the body’s immune, endocrinological, and central nervous systems. There is no agreed-on theory that adequately explains the so-called placebo effect, but intangible personal and cultural factors may facilitate “self-healing” when patients undergo any kind of treatment.

Alternative models of health and disease

Allopathic medicine is only beginning to incorporate concepts from new research findings and emerging theories from physics, biology, and information science describing structure-function relationships in complex living systems. Biomedicine assumes that linear causality operates in dynamic interactions between natural phenomena and that discrete causal relationships exist between identifiable disease *factors* and disease *states* in a dynamic system that can be adequately characterized using current empirical methods. The complex systems model stands in contrast to this linear view of causality.²⁶ Many nonconventional systems of medicine do not endorse the Western concept of linear causality and assert that illness, health, and healing can be more completely

gy” therapies, those nonconventional treatments that are based on biological mechanisms of action have been more thoroughly investigated in controlled studies. St John’s wort (*Hypericum perforatum*), S-adenosyl methionine, 5-hydroxytryptophan, and folic acid are examples of nonconventional biological modalities that have been thoroughly evaluated.

Mind-body therapies and treatments that are based on postulated forms of energy or information have not yet been carefully evaluated in Western-style research studies. For example, Reiki, qigong, and homeopathy are based on postulated energetic principles that have not been verified by Western science. Nevertheless, outcomes studies suggest that some energy healing modalities may have beneficial effects on physical and mental health.¹⁵⁻²⁰

understood within conceptual frameworks that differ fundamentally from the tenets of Western medicine.

Complex systems theory argues that dynamic *nonlinear* relationships exist between multiple hierarchically nested causes and that these relationships may manifest as emergent properties of the brain-mind-body that are experienced as symptoms.²⁷ A corollary of this model is that although a particular symptom may have one apparent or “primary” cause, underlying causes probably vary significantly between individuals reporting similar symptoms as a consequence of each patient’s unique biochemical, genetic, social, psychological, and possibly also *energetic* constitution.

Approaches used to model complex causal relationships between factors that influence health, illness, and healing include path analysis and the analysis of latent variables.²⁸ The analysis of latent variables has been used to assess quality of life in psychotic patients.²⁹ Nonlinear causal relationships described in complex systems theory may ultimately provide a more adequate explanatory model of psychiatric symptom formation than contemporary linear models. The interdisciplinary field of functional medicine views health and illness in relationship to informational changes in complex intercellular communication processes.

Functional medicine rests on conventional biomedical understandings of pathophysiology in the context of assumptions of biochemical and genetic individuality.³⁰ According to this model, disparate molecules that function as cellular mediators, including neuropeptides, steroids, inflammatory mediators, and neurotransmitters, can influence brain functioning at several levels. Effective treatments are ones that modify the informational basis of psychiatric symptoms by taking into account complex interactions between mediators and the brain.

Complexity theory, quantum mechanics, and quantum field theory are conceptual frameworks that have been largely overlooked by Western medicine as potentially useful explanatory models of illness and healing. These nonclassical paradigms may eventually lead to models or research methods that will clarify the nature of putative informational or energetic phenomena related to health, illness, and healing. Phenomena regarded as legitimate subjects of inquiry in nonorthodox paradigms that have been largely overlooked by Western biomedical research include the role of intention in healing and the putative beneficial effects of “subtle energy” on health.

Certain nonconventional treatment

approaches not currently endorsed by conventional Western psychiatry are based on electromagnetic energy and sound. Examples of nonconventional treatment modalities that may be explained by contemporary Western science include electroencephalographic biofeedback, music and patterned binaural sounds, full-spectrum bright light exposure, micro-current brain stimulation, and high-density negative ions. Treatment approaches based on classically accepted forms of energy generally have direct energetic effects on health and healing. In contrast, treatments based on postulated nonclassical models of energy or information, including quantum mechanics, quantum information, and quantum field theory, may have both direct and subtle effects on brain functioning, and by extension, mental, and emotional states.^{3,31} Nonconventional modalities based on concepts that are presently outside of or in contradiction to the tenets of allopathic medicine include acupuncture, homeopathic remedies, Healing Touch, qigong, and Reiki. *Qi* is an elemental energy postulated by Chinese medicine (*prana* is a similar energetic principle described in traditional Ayurvedic medicine) that cannot be adequately described in the language of contemporary Western science but may have attributes that are consistent with quantum field theory.³²

Quantum brain dynamics is a nonclassical model that uses quantum field theory to explain subtle dynamic characteristics of brain functioning, including postulated influences of nonclassical forms of energy and information on the brain. It has been suggested that healing intention operates through nonlocal energetic interactions between the consciousness of the medical practitioner and the physical body or consciousness of the patient.³³ Conventionally trained physicians generally regard reports of beneficial outcomes following “energy” treatments as examples of the placebo effect because contemporary Western science is not able to substantiate the role of postulated forms of nonclassical energy when these modalities are employed.

Rigorous research designs investigating “energy” medicine are difficult to achieve and findings on the effectiveness of directed intention and putative nonclassical energy effects on human health remain inconclusive and highly controversial.³⁴ However, emerging findings suggest that information is somehow co-extensive among or transferred between groups of neurons that are electromagnetic-

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ly shielded in ways that may be consistent with the predictions of quantum field theory.³⁵ These early findings may eventually provide a testable hypothesis about the role of human intention in health and healing.

Current and future trends

Acupuncture and other nonconventional modalities are now routinely incorporated in Western medicine and studies are being done to examine their putative mechanisms of action and therapeutic benefits. The same kind of transparadigm validation has historically led to acceptance of concepts that were originally rejected as invalid from the perspective of Western allopathic medicine. Examples include the use of denatured virus particles to immunize against live viruses; the use of antisepsis before and after surgery; and the use of x-ray films to diagnose fractures. Each of these now-mainstream approaches was first rejected by Western medicine as spurious or dangerous but was eventually accepted as efficacious and reasonable. Through this historical process, Western medicine has gradually evolved into an eclectic collection of theories and clinical practices and can be characterized as a highly integrated system.

Within the first decades of the 21st century, psychiatrists will embrace assessment and treatment approaches now excluded by orthodox Western medicine. Novel diagnostic and treatment modalities will emerge in the context of ongoing research on nonconventional modalities. Future explanatory models of mental illness will take into account established Western scientific theories, emerging paradigms, and non-Western healing traditions. In this process, Western psychiatry will become a truly integrative paradigm yielding more complete understandings of biological, informational, and "energetic" processes associated with mental illness.

A future, more integrative psychiatry will thus emerge from a synthesis of disparate explanatory models of mental illness. More complete understanding of complex dynamic relationships between biological, somatic, energetic, informational, and possibly also spiritual processes associated with symptom formation will lead to more effective assessment and treatment approaches that address causes or meanings of symptoms at multiple interrelated hierarchic levels of body-brain-mind. Future studies on healing intention, meditation, and prayer will use functional brain imag-

ing to elucidate the role of consciousness in health and healing.

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