Varieties of Healing. 2: A Taxonomy of Unconventional Healing Practices
Ted J. Kaptchuk, OMD, and David M. Eisenberg, MD

The first of two essays in this issue demonstrated that the United States has had a rich history of medical pluralism. This essay seeks to present an overview of contemporary unconventional medical practices in the United States. No clear definition of "alternative medicine" is offered because it is a residual category composed of heterogeneous healing methods. A descriptive taxonomy of contemporary unconventional healing could be more helpful. Two broad categories of unconventional medicine are described here: a more prominent, "mainstream" complementary and alternative medicine (CAM) and a more culture-bound, "parochial" unconventional medicine. The CAM component can be divided into professional groups, layperson-initiated popular health reform movements, New Age healing, alternative psychological therapies, and non-normative scientific enterprises. The parochial category can be divided into ethno-medicine, religious healing, and folk medicine. A topologic examination of U.S. health care can provide an important conceptual framework through which health care providers can understand the current situation in U.S. medical pluralism.

Defining unconventional medicine by "what it is" does not work. Alternative medicine is an umbrella-like term that "represents a heterogeneous population promoting disparate beliefs and practices that vary considerably from one movement or tradition to another and form no consistent . . . body of knowledge" (1). Alternative medicine is a large residual category of health care practices generally defined by their exclusion and "alienation from the dominant medical profession" (2).

Besides an absence of shared principles, an accurate definition of alternative medicine is further confounded because the boundary demarcating conventional and irregular medicine has always been porous and flexible (3). Therapies move across that border; for example, nitroglycerin (4) and digitalis (5) began as alternative drugs, just as corn flakes and graham crackers began as unconventional health foods (6). Entire professions change sides. In 1903, when the American Medical Association needed both a larger referral base for specialists and new allies in its fight with osteopaths, chiropractors, and Christian Scientists, it boldly reversed its policy and declared homeopaths to be conventional MDs (7). Likewise, osteopathy ceased being a renegade profession after World War II (8–10).

The first of two essays in this issue (pp 189-195) demonstrated that the United States has had a rich history of medical pluralism. This essay offers an overview of alternative medicine. Because of the inherent problems in defining a flexible residual category, we present a taxonomy of what is currently considered unconventional healing in the United States.

The number of named alternative therapies available in the United States easily soars into the hundreds (11–16). Many classification systems have been proposed (17–24). In an effort to further discussion, we offer a new taxonomy that we believe configures the domains of unconventional medicine across a broader spectrum of health practices. We do not expect that our attempt will be definitive (nor do we necessarily believe a perfect schema is possible). Any classification system is limited because such human phenomena resist discreteness as well as being fixed in time. As we point out, overlap often occurs. Inevitably, subjectivity affects the categorization and perceptions of "affinities." A summary of our schema is presented in the Figure.

Unconventional healing practices can be divided into two types: one that appeals to the general public and another that confines itself to specific ethnic or religious groups. The broadest category of unconventional medicine is easily recognized because its health care claims to be independent of any sectarian belief or faith and is said to depend on universal and even "scientific" laws (25). It is the best-known variety of unconventional medicine in the United States and recently, in a loose alliance, has become known as complementary and alternative medicine (CAM) (25).

The second kind of unconventional practice is typically confined to narrow groups, such as members of particular religions (for example, Pentecostal Chris-
Complementary and Alternative Medicine (CAM)

- Professional System
  - Chiropractic
  - Acupuncture
  - Homeopathy
  - Naturopathy
  - Massage
  - Dual-trained MDs

- Popular Health Reform
  - Mega-vitamins
  - Nutritional supplements
  - Botanicals
  - Macrobiotics
  - Organic food
  - Vegan diet

- New Age Healing
  - Esoteric energies
  - Crystals and magnets
  - Spirits and mediums
  - Reiki, qigong

- Mind–Body
  - Mind Cure
  - Deepak Chopra
  - Bernie Siegel
  - Course in Miracles
  - Silva Mind Control

- Mind–Body
  - Cognitive–Behavioral Therapy
  - Biofeedback
  - Hypnosis
  - Guided imagery
  - Relaxation response

- Non-Normative Scientific Enterprises
  - Chelation
  - Antineoplastons
  - Pleomorphic bacteria cancer vaccine
  - Iridology
  - Hair analysis

Parochial Unconventional Medicine

- Ethno-Medicine
  - Puerto Rican spiritism
  - African-American rootwork
  - Haitian vodun
  - Hmong practices
  - Mexican-American curanderismo

- Religious Healing
  - Pentecostal churches
  - Catholic charismatic renewal
  - Christian Science

- Folk Medicine Practices
  - Copper bracelets for arthritis
  - Chicken soup for the common cold
  - Red string for a nosebleed

Complementary and Alternative Medicine

The wide-ranging category of CAM can be divided into five main sectors, which are described below.

Professionalized or Distinct Medical Systems

Probably the most recognizable alternative healing practices are those that are organized into medical movements with distinct theories, practices, and institutions. Licensure as an independent profession is a goal if not always an actuality. Medical institutions, such as schools, professional associations, and offices with secretaries and billing procedures, are readily visible. An extensive corpus of technical literature helps guide therapy and practice and sharpens distinctness. Because they are easiest to describe and define, these systems are the most prominent in discussions of CAM. The six major components of this sector of CAM are chiropractic, acupuncture, homeopathy, naturopathy, massage, and dual-functioning MDs.

Chiropractic, the largest alternative medical profession in the United States, accounts for almost a third of all visits to CAM providers (26). The body's biomechanical structure, especially the spine, is seen as basic to health, and chiropractic emphasizes spinal manipulation as treatment (27, 28). Licensed as primary health care providers in all 50 states, chiropractors especially treat musculoskeletal disorders (29, 30).

Osteopathy was once a second manual therapy competing for the same patients as chiropractic. Since World
War II, osteopathy has reconfigured itself and has become "conventional"; the status of an osteopathic physician is equivalent to that of an MD. A minority of patients (<17%) visiting DOs receives the kind of manipulative therapy that would still be considered unconventional by orthodox MDs (31, 32).

Acupuncture relies on the insertion of fine needles at well-defined specific sites to regulate and balance humoral forces and "energy" (qi) and to promote health (33). As a component of East Asian medicine, acupuncture is often complemented with herbal treatment. Since the 1970s, acupuncture has spread throughout the United States and is independently licensed as a health care profession in 37 states (34).

Homeopathy uses the principle of "like cures like": A substance that produces a set of symptoms in a healthy person is used to treat an identical symptom complex in a sick person (35, 36). The substance, however, is extremely diluted, often to the extent that none of the original substance is likely to remain. Currently, homeopaths can be independently licensed in only three states, but other licensed practitioners also prescribe these remedies.

Naturopathy uses a wide assortment of therapies that its practitioners call "natural." Herbs, nutritional supplements, dietary and lifestyle advice, homeopathy, manipulation, and counseling can all be components of the repertoire (37). The term naturopathy was adopted in 1902 to replace the old word hydropathy, which denoted water-cure therapy. Currently, naturopaths can be licensed as primary care providers in 11 states; naturopathy is most common in the Pacific Northwest (38).

Massage therapists can be professionally licensed in more than 25 states (39). Although massage therapists (also called "body-workers" or "hands-on therapists") clearly perform unorthodox interventions (40–42), they overlap with recognized biomedical professions, such as physical therapy, or simple attempts at relaxation. Complementary alternative medicine techniques that address body alignment and awareness (such as the Feldenkrais method [43] and the Alexander technique [44]) are often classified as massage therapy because they involve "body-work."

Medical doctors who have opted to deliver, supervise, or advocate CAM are a significant force in alternative medicine and can be prominent spokespersons (47–50). Providing what is sometimes called "integrative" medicine, these physicians can deliver a broad range of CAM services or can focus on a single therapy.

**Popular Health Reform (Alternative Dietary and Lifestyle Practices)**

The health food movement, also known as alternative dietary and lifestyle practices, is an important component of CAM. Depending on how one calculates, it may in fact dwarf the professional sector (51). In the scholarly literature, this type of healing is labeled "popular health reform" because these practices are often advocated by untrained laypersons who often claim knowledge superior to that of expert scientists (6).

Popular health reform is delivered by a melange of resources, such as health food stores, popular books and journals, charismatic leaders, alternative provider recommendations, mass media attention, and a considerable amount of neighborly advice. This popular movement usually espouses a vegetarian or near-vegetarian diet, or avoidance of chemically treated and, more recently, radiated or genetically altered food. Details of particular programs tend to have enormous heterogeneity. Recommendations might range from eating only cooked food (for example, macrobiotics [52]) to eating only raw food (for example, fruitarianism) (53), or from heavy reliance on nutritional and botanical supplements or aromatherapy to their absolute prohibition. Recent shifts in biomedicine's understanding of nutrition and its role in pathophysiology have also encouraged a general social movement toward behaviors that were once thought to belong to health food "nuts" (54). This, in turn, has caused a blurring of the distinction between orthodox and unorthodox lifestyles and has helped increase the awareness of CAM in society (51).

**New Age Healing**

The New Age is the source of many extremely disparate beliefs and practices that can describe overlapping religious and healing movements (55, 56). Furthermore, confounding discussion, the term New Age may not be "adopted by a given individual (indeed, may be rejected), even though to outsiders the practice appears to fall into this category" (57). As a religious movement, the New Age is about a "new dispensation": less about law and limitation and more about unrestricted self-expres-
sion and unlimited abundance. Instead of any fixed religious doctrine, the movement emphasizes a fluid “spirituality.” It is not uncommon to see an iconography that is a grab bag of Hindu, Christian, Buddhist, Rosicrucian, and pagan motifs (18).

The New Age is also a health care category because spiritual equanimity and physical health are considered to be linked. In fact, New Age beliefs resist any separation between spirituality and physical health or faith and medicine. Scholars point out that the New Age seeks a “third way,” “a spiritual science,” between revealed biblical religious and “atheistic—materialist” science (58).

A key New Age connection between the spiritual and physical realms involves esoteric energies that resemble a veritable “electromagnetic” dimension of wellness (59, 60). The names of the energies change—life force, universal innate intelligence, psychic, parapsychological, psi, astral, spiritual vital force—but they inevitably elude scientific detection (61). Healers can transmit these forces. Devices and substances that emit them, such as radionic machines, magnetic devices, pyramids, crystals, and other electromagnetic gadgets, are constantly being incarnated. The health influence of planets and stars and some medical astrology could be considered another type of such energy (62). Healing energy therapies not explicitly connected to the New Age, such as “therapeutic touch” (often applied by nurses) (63) and “laying-on of hands” (64), can ultimately be traced here. New “energy” forces are being recruited from Asia. Chinese qigong (65) and Japanese Reiki (66), while obviously not originally New Age, find it a hospitable environment for cross-cultural migration (61).

Sometimes the religious and health domains are bridged through “clairvoyant physicians” or the healing presence of the spirits, religious icons, or leaders (67–70). Best-selling books by spirit mediums who describe spiritual healing for “incurable diseases and maladies” help keep the phenomena in prominent view (71). A third type of New Age healing connection between the cosmos and human health operates through “mind” forces and can also be considered a subcategory of CAM psychological intervention (see following discussion).

Psychological Interventions: Mind Cure and “Mind-Body” Medicine

Psychotherapeutics in CAM has two sources: one that is purely CAM and one that overlaps with conventional psychological interventions. In the scholarly literature, the exclusively CAM psychological tradition is referred to as Mind Cure or New Thought (17, 72–74). These therapies, which can include a myriad assortment of visualizations, affirmations, intentions, meditations, and emotional release techniques, all share a single point: Mental forces are the preeminent arbiters of health. Psychotherapists affiliated with CAM believe that the mind is the most dominant agency for restoring well-being and maintaining health. The notions that “What you think is what is real” and that “Your emotions determine cancer or other major disease” are dogma repeated over and over like mantras. Such bestsellers as Bernie Siegel’s Love, Medicine and Miracles and Deepak Chopra’s Ageless Body, Timeless Mind: The Quantum Alternative to Growing Old testify to the appeal of these beliefs.

The other sector of CAM “mind–body” therapies merges into conventional psychotherapy and cognitive–behavioral interventions. The relationship can be confusing or can produce gray areas. Generally speaking, in conventional medicine, psychotherapeutics is conceded only limited agency and is primarily used to treat psychological problems or to help patients cope when conventional treatments are not available or are insufficient. Psychotherapeutics remains a subordinate component of the conventional medical system (75, 76).

However, whenever too much power or efficacy is attributed to regular psychological therapies and they are used “off-label,” they “transgress” and can become CAM. For example, most MDs would consider psychotherapy appropriate for reactive depression after a cancer diagnosis, but psychotherapy used to cure a metastatic tumor would be considered unconventional (77). The same holds true for various cognitive–behavioral therapies that use “passive nonvolitional intention,” such as biofeedback, stress management, relaxation response, meditation, guided imagery, and hypnosis. When practitioners of these techniques make modest claims limited to small physiologic changes, the techniques are acceptable as subordinate components of conventional medicine. For example, biofeedback for fecal incontinence (78) or, more debatably, relaxation response for mild hypertension (79, 80) can seem legitimate or can at least achieve borderline acceptability, but both would be considered distinctly alternative if used to treat diabetes.

Another source of CAM psychotherapeutics involves the fact that between 250 (81) and 400 (82)
named types of psychological treatments are thought to exist. Any therapy deemed unacceptable by the mainstream can find a receptive home in CAM. Also, whether self-help groups, such as Alcoholics Anonymous, are CAM is highly debatable, but to the extent that they are not conventional they can automatically be described as alternative (83, 84).

**Non-Normative Scientific Enterprises**

Non-normative scientific enterprises typically appeal to patients with potentially catastrophic illnesses, such as cancer. These therapies can include sophisticated pharmacologic agents and often revolve around a well-known proponent who can have legitimate and even impressive scientific or medical credentials but advocates theories and practices unacceptable to the general scientific community. Examples include Dr. Stanislaw Burzynski’s “antineoplastons” and Dr. Virginia Livingston-Wheeler’s “pleomorphic bacteria cancer vaccine” (85, 86). Non-normative interventions can sometimes blur into the conventional practice of prescribing recognized pharmaceuticals for off-label uses (87–89). Unvalidated diagnostic methods and unconventional technological devices that diagnose or heal can be considered part of the non-normative science category. Representative examples are hair analysis, which purportedly detects a wide variety of diseases and nutrient imbalances (90); iridology, in which illness is diagnosed through a detailed examination of the iris (91); and chelation therapy to reverse the processes of arteriosclerotic disease (92).

**Parochial Unconventional Medicine**

Unlike CAM, parochial unconventional practices appeal to a more narrowly defined constituency. Three main parochial categories exist.

**Ethno-Medicine**

The healing practices of specific ethnic populations make up a critical component of U.S. community health care (93). These practices are rooted in the widely differing medical or religious traditions of various cultures. Well-known examples include Puerto-Rican spiritism, (94, 95), Mexican-American curanderismo (96, 97), Haitian vodun (98, 99), Native American traditional medicine (100), Hmong folk practices (101), African-American “rootwork” (102), and African-American spiritual church healing (103, 104). Occasionally, a culture-bound medical system ventures outside its historical sphere of influence and becomes another option available to the general U.S. population. This is true of acupuncture and seems to be coming true for India’s Ayurvedic medicine as it follows in the footsteps of yoga, its pioneering offspring (105). Partly because of New Age affinities, this may also happen with Tibetan medicine and Native American ceremonies (106, 107). Nonetheless, as a general taxonomic statement, consistent with stubborn racist prejudices, one could say that medical practices of ethnic communities are described as ethno-medicine while the “ethno-medicine” of mainstream white Americans is generally classified as CAM.

**Folk Medicine Practices**

Folk healing practices form a deeply embedded, unorganized, and seemingly spontaneous response to illness. Many of these practices are confined to specific geographic areas, such as southern Appalachia (108) or rural New Hampshire (109). Sometimes they can be traced back to remnants of ethnic (including Anglo-Saxon) magical traditions or earlier lay forms of self-care and home remedies. Common practices include wearing copper bracelets for arthritis, covering a wart with a penny and then burying the penny, stopping a nosebleed by placing a red string around the neck, and curing a cold with chicken soup (110–113). Besides cures, folk beliefs can also generate culture-bound diseases, symptoms, and treatment-seeking behaviors (114, 115). Some folk practices have a more widespread currency and are derived from earlier layers of premodern medicine (for example, humoral Hippocratic medicine) or medieval medical schools (for example, astrological medicine) (116, 117). Examples of remnants of Hippocratic ideas include such folk wisdom as “Bundle up to prevent a cold” or “Feed a cold and starve a fever” (115, 118, 119).

**Religious Healing**

Many Americans rely on religion for salutary effects on their health (120, 121). Generally, normative mainstream religious institutions have seen their role as supporting the “spiritual” dimension and avoid direct overlap or competition with the biomedical system (122). This division of labor has weakened somewhat lately;
“healing” services of one kind or another have appeared even in liberal churches and synagogues (123, 124).

The most salient forms of religious healing for physical disease can be found in Christian churches that see their ministry as replicating the miraculous healings recorded in the Bible (125, 126). This is especially true of the Pentecostal and charismatic churches, which seek to encounter and affirm the divine as manifest in both physical and mental healing (127, 128). People rising from wheelchairs or discarding crutches can be convincing signs of God’s power (129, 130). Christian Science, whose origins may be closer to Mind Cure than to Christianity, also continues to be an important non-normative source of healing in the United States (131, 132). Some religious denominations are also known for nonadherence to normative procedures (for example, Jehovah’s Witnesses, who routinely decline blood transfusions) (133, 134). For any of these religious approaches, genuine “faith” is required in exchange for the promised effectiveness. Also, these approaches sharply distinguish themselves from participation in any professed coalition with the CAM movement (135).

OVERVIEW

Unconventional healing is a far-flung landscape of diverse practices. A taxonomy balances distinction with commonality. Other perspectives that emphasize interconnection and common themes are possible. Healing behaviors can be grouped into those that focus on the primacy of substances to be taken orally (herbs, homeopathy, dietary supplements, or food), those that rely on the human hand (manipulation, needles, or anointing the sick), or those that emphasize words (ritual or psychotherapy) (23, 136). One could also discuss CAM approaches on the basis of shared common themes (for example, belief in nature, vitalism, and spirituality), as has been done extensively elsewhere (25). No matter how it is classified, however, this entire domain provides concrete practices and “pathways of words, feelings, values, expectations [and] beliefs” that reorder and organize the illness experience (137). Because patients include unconventional healing as an important component of their response to illness, physicians must understand this complex spectrum of health care practices.

CONCLUSION

A single definition of alternative medicine that tries to state “what it is” inevitably is not satisfying, since alternative healing includes a wide assortment of heterogeneous therapies and beliefs. A taxonomy of unconventional health care practices can help define alternative medicine and provide a conceptual framework for it. Such a model can help physicians understand and participate in the current discussion on unconventional healing practices as it rapidly unfolds.

From Harvard Medical School, Boston, Massachusetts.

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Requests for Single Reprints: Ted J. Kaptchuk, OMD, Beth Israel Deaconess Medical Center, Harvard Medical School, 330 Brookline Avenue, W/K-400, Boston, MA 02215.

Current Author Addresses: Drs. Kaptchuk and Eisenberg: Beth Israel Deaconess Medical Center, Harvard Medical School, 330 Brookline Avenue, W/K-400, Boston, MA 02215.

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