THE PROMISE AND DIFFICULTY OF INTEGRATING DIFFERENT HEALING TRADITIONS
The term *alternative medicine* has been used interchangeably with complementary medicine, integrative medicine, and unconventional medicine. While these names encompass many healing practices outside the realm of allopathic medicine, they are not necessarily equivalent and are often inaccurate in describing the practice and use of alternative medicine in the United States.

For example, not all alternative therapies complement allopathic medicine. As Megan Johnson illustrates in her essay, homeopathics might treat a runny nose by prescribing herbs that enhance the nasal discharge, while allopathic physicians would probably provide medications to suppress the symptoms. Combining both approaches to restoring health may not work synergistically, and it is unclear to what degree treatment compatibility exists. Physicians must identify the parameters within which alternative practices can be best used.

Another term that inadequately describes alternative medicine is *unconventional*. While most allopathic physicians may not recommend the use of energy healing to their ill patients, they might recommend other practices, such as the use of vitamins. Alternative practices may even be essential for the total health of the individual, given that the training of allopathic physicians has traditionally focused on intervention. Perhaps the prevention or palliation of certain chronic conditions are areas where alternative medicine could provide effects that are synergistic with allopathic interventions.

If alternative practices are not entirely complementary or unconventional, they are undeniably popular. Despite their common use, physicians are often uninformed regarding alternative techniques. In the absence of organized oversight lies the potential for harm. As Mehmet Oz and colleagues state in their report, engaging in yoga subsequent to open heart surgery can be dangerous. By working together, surgeons and yoga instructors have modified these exercises to alleviate pressure on the thoracic cavity. Acknowledging the prevalence of alternative therapies might allow physicians to incorporate those that are beneficial in the regimen toward complete recovery.

Can alternative therapies be integrated with allopathic practices to produce improved patient outcomes? Without rigorous research, it is impossible to identify those therapies that reproducibly benefit patients’ health. Fortunately, the Office of Alternative Medicine at the National Institutes of Health is tackling these problems. After careful study, some alternative practices may prove to be useful. Indeed, experimental evidence already suggests that surprising benefits can be found for certain alternative therapies. For example, gingko biloba extract has recently been documented to slow the progression of dementia in some patients. The possible benefits should be justification enough for continued rational evaluation.

If an accurate, comprehensive definition of alternative medicine remains elusive, perhaps a more restrictive definition can be applied. From the perspective of medical students, alternative medicine consists of those traditions and practices of healing not taught in medical schools. Given the prevalence and potential of these practices, it is the responsibility of medical students to rectify this situation and educate themselves about the field.

**References**


Homeopathy: Another Tool in the Bag

Megan A. Johnson, George Washington University School of Medicine

One popular form of alternative medicine is homeopathy, a system of medicine that attempts to stimulate the body to heal itself. Homeopathy is based on two main principles. The first is that “like cures like”: one should administer therapies that will produce symptoms similar to those the patient is already experiencing. According to this principle, symptoms are seen as the body’s attempt to restore itself to health. Enhancing these symptoms would then aid the body’s normal healing process. For example, one homeopathic remedy for a patient with a runny nose is the red onion extract, called allium, that enhances the runny nose by stimulating the tear glands and mucous membranes of the upper respiratory tract. In contrast, allopathic medications such as antihistamines would suppress the runniness.

The second principle of homeopathy is that of “minimum dilution”: one should use the lowest concentration of a substance that still provokes a response. This principle is essential to homeopathy’s viability, since some compounds used in homeopathy can be toxic at high concentrations. Homeopathic medications have beneficial effects only at lower dilutions, although how this occurs is unclear. Published guidelines state the prescribed concentration for homeopaths to follow when creating remedies.

Many factors contribute to the popularity of homeopathy, among which may be allopathic medicine’s ineffectiveness in treating the chronic health complaints of many patients. This may be especially true for more systemic conditions such as backaches, the “blues,” and general malaise. In these cases, homeopathic remedies may be useful, since they do not require a specific diagnosis but are based on the symptoms presented by the patient. Rather than sorting out conditions that may not match a specific diagnosis, homeopaths seek to enhance all symptoms through their therapies. In this sense, part of homeopathy’s popularity may be due to this patient-centered view of illness, where the key to resolving health issues lies in understanding and treating all symptoms, not just those that fit the textbook description of a specific disease.

Despite homeopathy’s popularity, several barriers exist to its broad acceptance in the United States. The uncertain legal and clinical limits that govern the practice of homeopathy are the most serious problems facing homeopaths. Only three states, Arizona, Connecticut, and Nevada, have homeopathic licensing laws that apply specifically to those with medical (MD) or osteopathic (DO) degrees. Within these laws no clear directives exist that distinguish between circumstances in which homeopathy could be applied and situations in which it would not be beneficial. In practice though, most homeopathic treatments are aimed at chronic illnesses; homeopathy is not generally considered useful for acute, life-threatening situations. However, the lack of legal and medical guidelines hinders homeopathy’s widespread use.

Common Homeopathic Remedies
Adapted from Healing With Homeopathy

- **Hypericum** (St John’s wort)
  - Suggested uses: Mild to moderate depression, sharp nerve pain resulting from nerve injuries, asthma that is worse in damp weather, toothache, late menstruation, and headache
  - Notes: A popular remedy that has long been used as a treatment for depression
- **Arnica montana** (leopard’s bane)
  - Suggested uses: After traumatic injuries, soreness and bruises, or when feeling hypersensitive and nervous
  - Notes: Often used after labor and delivery, after a fall or blow, or for bruising
- **Arsenicum** (arsenic)
  - Suggested uses: Restlessness, chilliness, weakness, thirst, burning pains, nervousness, anxiety
  - Notes: Often used for colds, flu, pinkeye, vaginal infections, gastroenteritis

A second difficulty is the inconsistency in homeopathic training. While many programs are offered in the United States, no state licenses the practice of homeopathy without a medical degree.

A third barrier is that most insurance companies do not reimburse for alternative medical practices, because they lack sufficient scientific proof of efficacy. Nonetheless, homeopathic remedies are easily purchased over-the-counter and are also relatively affordable.

Despite these obstacles, homeopathic and alternative medicines present a “significant public health challenge as well as an opportunity.” If homeopathy is, in part, a reaction to the shortcomings of modern medicine, it is also a force that cannot be ignored. For many patients suffering from chronic problems that lack a specific diagnosis, homeopathy may be an important and useful treatment option. If used within its limits, homeopathy could complement modern medicine as, “another tool in the bag.” Perhaps, together with allopathic medicine, a more complete therapy can be employed to benefit patients’ health.

References
Complementary and alternative medicine (CAM) represents that subset of practices that are not an integral part of the dominant health care system in the United States but are still used by patients to supplement their health care. Surveys have operationally defined CAM as those practices used for the prevention and treatment of disease that are not taught widely in medical schools nor generally available in hospitals.

Public and Professional Interest in CAM

One out of every 3 Americans consulted an alternative health care practitioner in 1990, constituting over 400 million visits. Over $13 billion was paid for these services, of which $10 billion was not reimbursed. In Europe and Australia, regular use of CAM practices ranges from 20% to 70%.

Substantial professional interest exists in CAM practices as well. Over 50% of conventional physicians in the United States use or refer patients for some CAM treatments, and most perceive them as having some efficacy. Hospital systems, health maintenance organizations, and insurance companies are increasingly providing CAM services. In addition, mainstream medical journals are beginning to call for research papers in complementary, alternative, unconventional, and integrative medicine.

The Role of the Conventional Practitioner in CAM

Often patients will accept anecdotes or sophisticated marketing as sufficient grounds to try new therapies. The conventional practitioner can help patients incorporate more scientific evidence in their health care decisions. The following are directives physicians can adopt when discussing the use of CAM practices with their patients.

Protecting patients from the risks of CAM—Given the extensive use of CAM services and the relative paucity of data concerning safety, patients may be putting themselves at risk by their use of these treatments. Only fully competent and licensed practitioners can help patients avoid such inappropriate use. Some CAM products contain powerful pharmacologic substances that can be toxic either alone or in combination with other medications. Also, contamination and poor quality control are more likely with CAM products than with conventional drugs, especially when shipped from overseas. Physicians can also ensure that patients do not abandon effective care and alert them to signs of possible fraud or danger.

Permitting use of nonspecific therapies—Some therapeutic benefits of CAM may be attributed to nonspecific factors. Basic science and clinical trials can separate general factors from those components that are specific, and unique to the therapy. Practitioners can combine both specific and nonspecific factors to achieve maximum benefit to the health of their patients.

Promoting safe and effective CAM therapies—Accumulating evidence suggests that CAM practices are valuable for the treatment of disease. Importantly, alternative products are often less expensive than conventional medications. For example, studies report that Hypericum (St John’s wort) is not only as effective as conventional antidepressants in treating depression but can be obtained at one third the cost. Physicians can search the published medical literature and evaluate the applicability of CAM for specific patients’ problems.

Partnering with patients about CAM—More than 80% of those who used unconventional practices in 1990 combined these practices with conventional medicine. Patients who use CAM do not harbor antiscientific or anticonventional medicine sentiments, nor do they represent a disproportionate number of the uneducated, poor, seriously ill, or neurotic. Yet 70% of patients who use CAM practices do not tell their conventional practitioner about this use. The physician can fill this communication gap by asking patients about their CAM use and work with them to ensure that these therapies are used responsibly.

Medical Students and Medical Education in CAM

Recognizing the increasing importance of CAM in modern health care, more than 80% of medical students would like further training in these areas. Currently, over 40 medical schools in the United States offer introductory, elective courses in CAM and almost one third of family practice residencies provide some type of instruction about CAM practices.

In June 1996, a panel of experts in medical and nursing education assessed the status of CAM education. The panel included deans and associate deans for curriculum and education from medical and nursing schools and representatives from the American Medical Association (AMA), American Academy of Family Practice (AAFP), Association of American Medical Colleges (AAMC), Federation of State Medical Boards, Pew Health Professions Commission, American Medical Student Association (AMSA), and other organizations. They made the following 3 recommendations regarding the future role of CAM in health sciences education.

1. Medical and nursing education should include information about complementary practices.
2. Medical and nursing education about each complementary and alternative practice should include information about the discipline’s philosophical paradigm, scientific foundation, educational preparation, practice, and evidence of safety and efficacy.
3. National centers of excellence should continue to be developed to foster collaboration among complementary practitioners, nurses, and physicians and to promote synergy among education, research, and clinical practice.
The OAM Supports the Following 11 Centers for Research in CAM

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<thead>
<tr>
<th>Focus</th>
<th>Location</th>
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<tr>
<td>Cancer</td>
<td>University of Texas Health Science Center</td>
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<tr>
<td>Women’s health</td>
<td>Columbia University College of Physicians and Surgeons Kessler Institute for Rehabilitation</td>
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<tr>
<td>Stroke and</td>
<td>BasFly University</td>
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<td>HIV and AIDS</td>
<td>University of Virginia School of Nursing</td>
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<td>Pain</td>
<td>University of Maryland School of Medicine</td>
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<td>Aging</td>
<td>Stanford University Research Center</td>
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<td>Addictions</td>
<td>Minneapolis Medical School</td>
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<td>Internal medicine</td>
<td>Beth Israel Hospital, Harvard Medical School</td>
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<td>Asthma and allergy</td>
<td>University of California, Davis</td>
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<td>Chiropractic</td>
<td>Palmer College of Chiropractic</td>
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By “philosophical paradigm” the panel meant that students should learn about the different values and worldviews on health and disease that are to be found in a pluralistic society. Currently, organizations such as the AMA, AAFP, AAMC, and AMSA are discussing strategies for addressing medical education needs in CAM.

CAM Research at the National Institutes of Health (NIH)

The NIH currently invests about $40 million per year in CAM-related research. To address the need for research in complementary, alternative, and unconventional medical practices, Congress created the Office of Alternative Medicine (OAM) at the NIH in 1992. The OAM works with NIH institutes and centers to identify and support CAM research applications and develops new programs in selected CAM-related areas. It supports 11 centers conducting over 50 projects on CAM research at universities around the country. The OAM also maintains an organized bibliographic database of over 90,000 citations. Selections from this database on safety and clinical conditions will soon be available on the OAM web site. An OAM supported public information clearinghouse responds to 2000 inquiries each month.

Conclusions

As the importance of CAM continues to grow, physicians will be increasingly expected to address issues related to these practices. Physicians cannot become knowledgeable about all CAM practices, but they can apply the principles of evidence-based medicine, as in any area of health care. The OAM can serve as a resource to physicians in their effort to provide safe, effective, and appropriate health care for the American public.

For information about CAM research at the NIH, contact the public information clearinghouse at 1 (888) 464-6226 or the OAM Web site at www.altmed.od.nih.gov.

For grant information call the OAM at (301) 435-5024; grant applications can be obtained from the Grants Information Office at (301) 435-0714 or by e-mail at asknih@odrockml.od.nih.gov.

References

Since its inception in the late 1950s, the cardiac surgery service at Columbia-Presbyterian Medical Center (CPMC) has applied innovative approaches to the treatment of cardiac disease. This tradition has led to the creation of extensive programs in heart transplantation, mechanical cardiac assistance, and pediatric cardiac surgery. The search for improved healing techniques has not been limited to the operating room. The neurologic and psychiatric changes associated with open heart surgery have also been defined, and treatment of these changes is now an integral portion of postoperative cardiac surgery care. The need to ameliorate these symptoms, including the inability to sleep, increased anxiety, and possible psychosis, was the driving force behind the creation of the complementary medicine (CM) program within the cardiac surgery department in 1994. Currently, 40% of the nearly 1400 cardiac care patients per year use the services provided by the CM program at CPMC.

The growth of the CM program is primarily patient-driven. Many patients requiring cardiac surgery had already explored or used CM treatments and requested that these techniques be somehow integrated into their surgical regimen. In addition, as allopathic clinicians, physicians felt that the emotional, palliative, and/or preventive care requested by patients were areas that surgeons were not well trained to provide. The CM program could fill this void in the perioperative management of surgical patients. Hence, a separate CM service was established that would allow individuals with experience in the areas of prevention and/or health maintenance to interact with patients under the supervision of physicians.

Currently, the CM program at CPMC operates on a hospital-subsidized, fee-for-service basis. However, health care providers and former patients have approached health insurance organizations and requested reimbursement for these therapies. Some companies have been receptive, providing full or partial reimbursement and demonstrating an interest in supporting CM, while others have not. In all cases, health insurers have asked for more data and research about the efficacy of complementary therapies, a need that we are addressing.

**Modalities Offered by the CM Program**

**Music Therapy**—This modality uses music’s influence on the mind and body to ease the stress patients endure when undergoing open heart surgery. Patients listen to specially designed “hemisync,” 5-tonal, or popular music tapes through headphones while anesthetized during surgery. Patients are encouraged to listen to the tapes preoperatively and postoperatively to support the recovery process. Of the patients entering the CM program, 80% chose this modality.

**Hypnotherapy**—Hypnosis is used by many of our patients to help manage anxiety, depression, and, most importantly, pain. In our program, a hypnotherapist leads a patient through several steps of progressive relaxation. Although each hypnosis script is specifically designed to meet the particular needs and issues of the individual patient, during a typical session, the hypnotherapist will suggest that there will very little pain after the surgery or that the patient’s spirits and attitude will be high and energetic. For many patients the experience of the intubation tube after coming out of anesthesia is traumatizing; hypnotherapy has been used to ease such anxiety. Hypnosis sessions are recorded on audiotape and patients are encouraged to listen to them before and after surgery.

**Nutrition**—Most people believe that nutrition is a pillar to recovery of health. Following open heart surgery, we have an opportunity to make dramatic modifications in our patients’ diets (Table).

**Massage and Reflexology**—Both of these therapies are popular among patients in the program, and nearly 60% of patients entering the CM program use them. Massage therapy has been effective in relaxing patients as well as their family members during stressful episodes at the hospital. All massages are performed by licensed massage therapists, using various manipulative techniques that stimulate muscles. For those patients in whom body massage is contraindicated, reflexology is offered. Reflexology is the manual stimulation of the hands and feet. In traditional Eastern medicine, stimulation of certain points on the hands and feet can produce a “reflex” effect in other areas of the internal body.

**Yoga**—This program was chosen by 15% of our cardiac care patients. We use a modified yoga routine to prevent injury to the sternum or manubrium in recent operated upon patients. Patients are led through a series of gentle exercises that allows them to stretch muscles that have been unused since the surgery and to focus on breathing techniques that will ease the strain on the thoracic cavity. In addition, yoga can be used to manage the daily stresses in a patient’s life to prevent future recurrence of disease.

**Aromatherapy**—This therapy uses the sense of smell to restore the body to health. Aromatic oils, such as lavender and neroli, have long been believed to have a soothing effect on the mind and body. Physiologically, this may be reflected in an increase in parasympathetic nervous system activity. By measuring heart rate variability, we hope to determine what effects aromatherapy has on the body.

**Therapeutic Touch**—The most controversial modality is the use of therapeutic touch or energy healing. Practitioners move their hands over patients without physical contact in order to effect changes in their chakras, or energy meridians. With nothing more than a mindful intention to heal, the practitioner attempts to change a person’s energy meridians, allowing the body energy to flow evenly and achieve a state of health. In 1997, 10 extremely skeptical patients found therapeutic touch to be remarkably helpful and have supported continued research and use of this treatment.
Evaluating the Efficacy of CM

To meet the need for scientific research in the field of CM, the program at CPMC actively evaluates the efficacy of all modalities used by patients. In addition to delivering the therapies, practitioners and coordinators monitor and assess the outcomes of these interventions on the overall health of the patients.

To determine the benefit, if any, of the various complementary modalities, we study their effects using the following 4 health assays:

- Autonomic nervous system function is gauged by monitoring heart rate variability frequencies in the intensive care unit setting or on the wards. By measuring heart rate, we can determine whether the complementary modality has a relaxing or stimulatory effect on the patient.
- Cognitive function is studied using word pair selection biases.
- Immune function is assessed using energy panels in vivo or using patient serum in vitro.
- Quality of life is assessed using a moods’ scale profile.

Patients who use CM modalities are followed prior to and after interventions at weekly intervals to assess short- and long-term benefits. By using a multidisciplinary approach, incorporating assays of autonomic nervous system, cognitive function, immune function, and quality-of-life surveys, we hope to provide a model for investigating complementary modalities and to add substantively to the literature on this topic. Thus far, we have demonstrated that the use of hypnosis in the perioperative cardiac surgery setting results in a significant reduction in anxiety as well as a decrease in the amount of postoperative pain medication required by patients.2,3 Other studies are under way to determine the potential therapeutic properties of other complementary modalities.

Recommended Diet Following Open Heart Surgery

Vegetarian diet and no dairy products
<20% of energy from fat (only 5% saturated)
Limited complex carbohydrates to maintain weight within 20% of ideal
Emphasis on food groups that include grains, beans, fruits, and vegetables
Ascorbic acid (1000 mg/d) and vitamin E (400 IU/day)
Ubiquinone (30 mg 3 times a day) and carnitine (500 mg 2 times a day)
Calcium citrate (1 g/d) and magnesium citrate (800 mg/d)
Folic acid (1 mg/d) and vitamin B-complex (50 mg/d) with supplemental pyridoxine hydrochloride (50 mg/d) after determination of baseline homocysteine level

The combination of multidisciplinary researchers, a well-equipped facility, and a relatively homogenous population consisting of cardiac patients will help us to identify the potential role of CM in the allopathic health care system. Our patients are already asking for this advice.

References

Interested in the Alternatives? Here’s Where to Learn More

For those interested in holistic health the following is a list of resources:

Organizations
American Holistic Medical Association
6728 Old McLean Village Dr, McLean, VA 22101; (703) 556-9728/9245 [holistmed@aol.com]
American Association of Naturopathic Physicians
2566 Eastlake Ave East, Ste 322, Seattle, WA 98102; (206) 323-7610
Herb Research Foundation
1007 Pearl St, Suite 200, Boulder, CO 80302; (303) 449-2265

Periodicals
Alternative Therapies in Health and Medicine
PO Box 627, Holmes, PA 19043; (800) 345-8112
Herbal Gram (quarterly publication of the American Botanical Council and the Herb Research Foundation)
PO Box 201660, Austin, TX 78720; (512) 331-8868

Books

Internet
FDA: http://www.fda.gov
American Holistic Health Association: http://www.healthynet/ahha
American Botanical Council: http://www.herbalgram.org
Ask Dr. Weil: http://www.drweil.com

1998 Pulse Art Contest
Entries for the 1998 Pulse Art Contest must be postmarked by June 1. Winners will be considered for future publication in Pulse. For information, please refer to the February 4 issue of Pulse or contact Senior Editor Li-Yu Huang at (254) 899-1993.
1. Wipe the bell, diaphragm, and tubing of stethoscopes and the surface of otoscopes with alcohol swabs between patient uses.
2. Wash hands thoroughly with soap and running water between patient contacts.
3. Have alcohol swabs readily available (eg, adjacent to sinks, in patient anterooms, and at nursing stations). Swabs need to be easily accessible to encourage use.
4. Provide a dedicated stethoscope and other handheld instruments (including blood pressure cuffs) for patients who require contact precautions (eg, patients isolated because of multidrug-resistant microorganisms, such as vancomycin-resistant enterococci infection). Because topical cleaning with alcohol does not reliably remove all bacteria, nondisposable, dedicated equipment should be more thoroughly disinfected with an emerized disinfectant between patients. Disposible stethoscopes are an acceptable choice.
5. Instruct environmental services personnel who perform routine room cleaning between patients about the need for and techniques of thorough cleaning of items that contact patients, such as blood pressure cuffs.

Formal evidence-based recommendations await more data on the clinical significance of contamination of handheld instruments by pathogenic microbes and the effectiveness of these and other techniques for preventing transmission of these organisms.


CORRECTIONS

Incorrect Table.—In the Pulse article entitled “Complementary Medicine in the Surgical Ward,” published in the March 4, 1998, issue of THE JOURNAL (1998;279:710-711), the Table contained several errors. The corrected Table is published here.

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Misattributed Artist.—In The Cover story published in the February 4, 1998, issue of THE JOURNAL (1998;279:340), the cover painting was misattributed to Kuniyoshi Yasuo. The correct name of the artist is Toyohara Kunichika and the painting is entitled Lady.