Is There Any Evidence?

Frank L. Tabrah, MD

Professor of Physiology and Emeritus Professor of Community Health, John A. Burns School of Medicine, University of Hawaii at Manoa; Medical Affairs Department, Straub Clinic & Hospital



Alternative and complementary medicine until recently lay outside standard medical school training and hospital practice. Semantically, alternative medicine is used "instead of" and complementary medicine "in addition to." The American Board of Medical Specialties recognizes 24 allopathic or "standard" medical care disciplines such as Obstetrics and Gynecology, Pediatrics, General Surgery, Dermatology, and

Family Practice.

Allopathic practitioners and basic science workers have tried to systematically record treatment outcomes since the time of the early Egyptians and Greeks. Treatment results are published, working with these critically important scientific precepts:

- Observe carefully
- · Form a theory that fits known facts
- · Set up trial or experiment with controls
- Examine results statistically
- Draw conclusions only from evidence
- · Correlate theory with results
- Apply findings clinically

Much standard medical care in use today is based on clinical trials reported in quality specialty journals, the information carefully reviewed by recognized experts in teaching centers, whose concern with controls and proof of treatment effectiveness arises directly out of these fundamental rules of science.

The National Institutes of Health recognizes seven main classes of alternative and complementary care:

- · Manual healing
- Alternative systems
- · Bioelectric methods
- · Diet, nutrition, and lifestyle changes
- · Herbal Medicine
- Mind/Body Control
- Pharmacologic and Biologic treatments

and some 65 subsets of systems of care, of which these are a few:

- Acupuncture
- Chiropractic
- Lifestyle changes
- Diet
- · Homeopathic Medicine
- Cultural Practices
- · Chelation Therapy

Our title, "Is There Any Evidence" tacitly invites a comparison of therapeutic value between standard care and these other systems. For standard care, we can safely say *yes*, there is evidence, secure in

the worldwide application of the research principles noted above.

Asking the same question for alternative and complementary medicine, we do not often find comparable controlled studies, agreement with long established physical and chemical facts, or consistent results among many observers. Strong psychosomatic effects are rarely ruled out, when clinical studies are done at all. So, for a large number of our +/- 65 modes of alternative and complementary medicine outlined by the National Institutes of Health, this reply is "perhaps," because of the sparsity of controlled research with statistical validity. There lies ahead a long and controversial road on which to test the myriad of treatments involved. Seemingly outrageous claims must be weighed against known basic science, and conclusions must be equally free of cultural bias and academic rigidity. NIH funding will accomplish some of these aims only if objectivity prevails.²

A question—if alternative and complementary medicine systems and medications are so controversial, why their incredible popularity, costing about 27 billion dollars a year—more than all hospitalizations combined, with nearly 50% of patients seeking out non-conventional cures. Here are some of the reasons:³

- · Anecdotal accounts of success
- Non-threatening care
- · Cultural "tugs"
- · Avoidance of costly, unpleasant tests
- Defiance of "big science"
- Lower cost
- Faith is "easier" than scientific jargon
- Compassionate practitioners

A few cautions are advisable for those venturing into personal alternative or complementary care:

- · Try to have a firm diagnosis first
- · Beware of self-diagnosis and treatment
- Try to understand the difference between true clinical studies and sales pitches
- Remember, much internet information is nonsense

And a warning on herbs:4

Avoid: Germander

Chaparral

Comfrey

Skullcap

Excessive vitamin dosages

Since much of the outstanding success of alternative and complementary medicine is clearly psychosomatic—that is, suggestive and faith-based, we should value these systems for what they really are, that they are systems of highly skilled interventional psychiatry, and that they do not need to rely on descriptions of imaginary force

fields, auras, and other concepts which defy known physical and biochemical facts.

Two examples: one, the use of small magnets near the body for pain—we have done some controlled experiments on this, and as with previous studies by others, find no effects, although one study claims relief of post polio pain. Therapeutic interaction with static magnetic fields is extremely unlikely, considering the vast energy difference of one billionth to one between any possible induction effects in tissues and normal thermal molecular activity.

Similarly, the claims for Kirlian photography showing an aura around people, plants, and animals are truly bizarre—in our lab we showed changing "auras" with Kirlian equipment—around nickels, dimes, paper clips, and dead insects by varying the film, pressure, and current used.

In considering alternative and complementary medicine, perhaps

we should simply avoid the question "is there any evidence," and say that even if there isn't any physically, or very little, that if patients say they are improved or cured and no harm is done, why not go ahead and use anything that appears to work? Two questions loom—first, safety, and second, who is going to pay for it?

In the real world, these questions are the thrust of today's intensive research. While much of value may lie undiscovered or unexplained, **rationality is a must.** As a British author said, "beware of passing through the gates of knowledge into the fields of fancy."

References

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