

Transforming Medicines

By Charles Elder, MD, MPH, FACP
Cheryl Ritenbaugh, PhD, MPH

Whole Person

What will it take to transform our health care system? Anecdotal experience and qualitative data suggest that patients undergoing treatment within certain Complementary and Alternative Medicine (CAM) systems (eg, ayurveda, traditional Chinese medicine, and naturopathy) may experience and value *nonspecific, whole-person, or transformational* changes as essential components of the healing process. Conventional medicine's limitations in appreciating such phenomena may represent an under-recognized root cause of chronic dissatisfaction with and within primary care. Meaningful progress, then, could require the transformation of our own practice toward selectively incorporating CAM paradigms. Clinical investigators and educators are already responding to this challenge.

"The Experience was Transforming"

At the Center for Health Research, we recently completed a National Institute of Health (NIH)-funded pilot trial¹ assessing the feasibility and clinical impact of a novel, holistic intervention for newly diagnosed type 2 diabetics. We recruited and randomized 60 patients to either allopathic or ayurvedic care. Ayurvedic medicine² is the traditional health care system of India, ranking among the oldest

continuously practiced systems of natural health care in the world. Patients in the ayurvedic arm of the trial were treated with a multimodality intervention including exercise, a lacto-vegetarian diet, a quality-controlled herb supplement,³ and instruction in the Transcendental Meditation technique.⁴ (See Sidebar: Whole Systems Research: An evolving paradigm for studying CAM interventions.) The allopathic care arm received standard diabetes education with primary care follow-up. As an incentive to patient compliance, we offered raffle entry for a free weekend at the Oregon Coast to participants completing the six-month data collection. At study conclusion, we invited these participants to a social gathering where the raffle would take place. As I (Charles Elder) mingled among the crowd at this event, one participant pulled me aside and commented:

"Dr Elder, I'd like to thank you for conducting this study. I was in the ayurvedic group. The experience was transforming."

I found the positive feedback gratifying, but was somewhat taken aback when a few minutes later another participant approached me and, using almost identical language, thanked me for the transformative experience she had enjoyed from her exposure to meditation and the ayurvedic paradigm. Finding this "coincidence" intriguing, I

described these conversations on the drive home to my wife, a family practitioner who had served as the study physician for the experimental group. She responded without surprise, noting that she had been getting such feedback from the patients all along.

The anecdote supports the premise that patients may gain whole-person or transformational benefits from certain CAM interventions that go beyond the narrow biomedical markers we are accustomed to measuring.

A Second Trial

As another example, we conducted⁵ a clinical trial assessing the impact of two mind-body interventions for weight-loss maintenance. One of the interventions tested was Qigong,⁶ a technique from the traditional Chinese medicine tradition involving movement and meditation. Whereas patients in the Qigong group did not achieve benefit in terms of the measured biomedical outcomes (weight loss maintenance), in formal interviews these same patients reported significant improvements in overall well-being:

"Positive thinking and self-affirmation and all of that positive energy—that's what it amounted to. I don't know about weight loss or weight maintenance, but I did find a more positive outlook and

Conventional medicine's limitations in appreciating such phenomena may represent an under-recognized root cause of chronic dissatisfaction with and within primary care.

Charles Elder, MD, MPH, FACP, is a primary care internist at the Division Street Medical Office, in Portland, OR, and a Clinical Investigator at the Kaiser Permanente Center for Health Research. He is Director of Integrative Medicine for Kaiser Permanente Northwest; a Clinical Assistant Professor at Oregon Health Sciences University and Associate Editor of *The Permanente Journal*. E-mail: charles.r.elder@kp.org.

Cheryl Ritenbaugh, PhD, MPH, (not pictured) is a Professor and Associate Head for Research in the Department of Family and Community Medicine at the University of Arizona. E-mail: ritenbau@email.arizona.edu.



peace. It would take the stress right out of you. I know that stress causes a lot of health problems. From that standpoint alone it's beneficial."

"It was really clear that after the class everyone felt energized. When everybody walks in they are rushing from work and then when they leave, they are like on a cloud floating out the door."

"There were so many other empowering and unique attributes of Qigong that [weight loss] really seemed like it went off the scope of things to consider, and yet I could very easily see the connection."

Here again, patients reported whole-person benefits that were not captured by the conventional biomedical outcome markers. Unfortunately, reliable and valid tools

are not available to evaluate the whole-person and transformative experiences reported in such qualitative interviews.⁷ Indeed, few empirical studies have examined outcomes centered on the whole person. Thus a major obstacle to remedying the discrepancy between the importance of whole-person outcomes and our failure to systematically address them is the lack of rigorous objective measures allowing us to document and quantify such phenomena.

A Transformational Measurement Tool Methods

As a first step, we are participating in an international collaborative project toward developing,

evaluating, and implementing a questionnaire tool for use in CAM and other biomedical research to quantitatively measure whole-person outcomes, including transformational change. The project, funded by the National Center for Complementary and Alternative Medicine at NIH, is combining the qualitative interview data collected in peer-reviewed CAM research at five US and Canadian institutions (University of Arizona (lead), Kaiser Permanente Northwest, National College of Natural Medicine, University of Michigan, University of Calgary). Employing a well-developed series of analytic phases, we are performing secondary analyses on seven existing qualitative data sets, consisting of transcripts from interviews, which have collected patient (n = 122) and practitioner (n = 55) reports of changes experienced through CAM therapies. We are currently performing these analyses to identify frequently reported whole-person outcomes, and characteristics and descriptors of the transformational changes as described in participants' natural language. After conducting focus groups with the original interviewees to confirm the transformational change descriptors and domains, we will develop a transformational outcomes questionnaire, encompassing the constructs identified in the analyses. On reviewing previously published items/scales, in search of measures that address the constructs and language identified in our analyses, we will collect those measures—choosing the best for inclusion, after requesting appropriate permissions; and finally new items developed to fill in the measurement gaps will be combined with the old items into a final draft questionnaire for testing. We will then test the tool through

Whole Systems Research: An Evolving Paradigm for Studying CAM Interventions

The ayurveda/diabetes project represents an example of a "whole systems" study. The general strategy in such a trial is to compare an "authentic" multimodality intervention from a CAM system (authentic in the sense that it represents the common community practice) to a usual care intervention matched in terms of contact hours and treatment intensity. The need for this model stems from the growing recognition within the CAM research community that the conventional single modality randomized trial is scientifically inadequate for the rigorous assessment of CAM interventions. Reasons for this are many and include:

- CAM practitioners typically prescribe multimodality interventions. These modalities, from the vantage point of the CAM paradigm, are held to act in synergy. It makes no sense to isolate a single modality for study; the results of such a study would be of little practical application, since the modalities are not intended to be used in such a way.
- In the classic single modality randomized trial, we blind and control in an attempt to "filter out" the attitudes and interactions of patient and practitioner, so as to "isolate" the activity of the "modality" for study. In ayurveda and other CAM systems, the attitudes and interactions among patient, practitioner, and modality are held to be essential features of the healing paradigm, and are thus themselves an important object for study.

The National Center for Complementary and Alternative Medicine's five-year strategic plan lists the study of "Whole Medical Systems" among its top funding priorities: <http://nccam.nih.gov/about/plans/2005/strategicplan.pdf>.

For a detailed review of the scientific issues related to studying CAM whole systems, see the Roundtable Discussion, "Methodological Challenges in Whole Systems Research." (www.liebertonline.com/doi/pdf/10.1089/acm.2006.12.843). Elder C, Aickin M, Bell IR, et al. Methodological Challenge in whole systems research. *J Altern Complement Med* 2006 Nov;12(9):843-50.

pilot administration and appropriate psychometric evaluation.

Implications

The availability of a validated measurement tool will enable investigators and health care professionals to better identify, measure, and address whole-person outcomes at the levels of research, policy, and practice. This could prove a tipping point for an allopathic medical system whose primary care clinicians are in perpetual job satisfaction crisis.⁸ In conventional medicine, available clinical tools (pharmaceuticals or surgery) generally do little to promote whole-person or transformational change. Additionally, the narrow, dualistic Newtonian paradigm does not allow for sophisticated analyses of such issues. Yet primary care physicians acknowledge that patients commonly present to them with problems requiring a more holistic approach.⁹ This discrepancy between the (whole-person, transformational) needs of our patients and the (narrow, materialist) tools available inevitably generates a frustration or dysfunctionality^{10,11} that might lie at the root of the crisis. Charged with this impossible task, job dissatisfaction within primary care has grown so perpetually pervasive as to seem almost an inherent feature of the enterprise. Like a dog barking up the wrong tree, the community expends tremendous resources with little result. The solution, of course, is not to bark louder. If what patients are requiring for their health are phenomena at the level of holistic and whole-person outcomes, and if CAM systems offer more evolved paradigms for identifying and managing such phenomena, can the study and judicious integration of CAM systems contribute to the solution? Many feel the answer is yes, as evidenced by the broad array

of CME programs now available to train conventional clinicians in CAM systems and modalities.

Global Medicine Education

As an outstanding example, The Global Medicine Education Foundation (www.globalmeded.org/), in affiliation with The American Holistic Medical Association, offers an 18-month Transformational Medicine training program for health care professionals. The program combines Web-based distance learning with four one-week on-site retreats toward training participants in the tools and concepts of different healing paradigms, cultures, and traditions.

For example, course participants recently engaged in didactic review and interactive discussion of the concepts of western naturopathic medicine. Central to the naturopathic paradigm is the notion of the “healing power of nature”:

“The healing power of nature is the inherent self-organizing and healing process of living systems which establishes, maintains, and restores health ... It is the ... physician’s role to support, facilitate, and augment this process by identifying and removing obstacles to health and recovery ...”¹²

This vision of the physician’s primary role as facilitator of the patient’s own innate healing potential generated dynamic discussion among the Transformational Medicine program’s online distance learning participants. One physician, a family practitioner, commented:

“*One of the tenets of naturopathic medicine is the ability of the body to heal itself. This is a similar*

theme that is resonated in holistic medicine, integrative medicine, functional medicine, osteopathic medicine as well as some allopathic physicians who are ‘real doctors.’ The object is to support the body in its effort to heal itself and ‘to remove obstacles to health and recovery.’

“It is a strange comparison but in some ways this is analogous to the creation of a very high-end stereo system. One starts out with the source (CD, vinyl, tuner) etc. Components that are later added to the system (cables, pre-amp, amplifier, speakers) can only degrade the source signal. The best systems do the least damage by adding only components that ‘get out of the way’ and support the natural sound. This goes back to the dictum, ‘first do

no harm.’ Allopathic medicine in the stereo analogy colors the sound by adding pieces of information that were not originally there. The sound may appeal to some people but it is not ‘truth.’

*“... Physicians using naturopathic modalities may include allopathic physicians with a holistic orientation. I feel the main difference between naturopathic physicians and allopathic physicians practicing naturopathic modalities (aside from the detail of knowledge that naturopathic physicians learn) is one of philosophy. Naturopathic physicians evolve into who they are **because** of the system. Allopathic physicians with a naturopathic approach become who they are **in spite of** the system.”^a (Vondell Clark, MD, MPH, personal communication, November 2006)*

Here the allegation is somewhat more serious. Does our model of

In conventional medicine, available clinical tools ... generally do little to promote whole-person or transformational change.

care not only underemphasize, but actually inhibit, the healing experience for the patient? A narrowly materialist application of the allopathic paradigm may unduly restrict our power as healers to identify and cultivate whole-person phenomena. Health care is wildly expensive, and purchasers demand to know what they are buying for their dollar. Objective biomedical measures are implemented, emphasized, and then overemphasized *ad nauseam*. Individual physicians inevitably capitulate to the pressure. Consider the example of the routine brief primary care office visit with the diabetic patient. Here the physician may encounter a practically overwhelming checklist of tasks. Is glycemic control optimal? If no, what to adjust? Is the patient taking aspirin, lovastatin, and lisinopril? Proper doses? If not, why? Are eye and foot exams, and microalbuminuria screen up to date? Are vaccines all current? Other concurrent issues? All this in 10-15 minutes? Who has time then to actually talk, let alone listen to (or even look at) the patient? In our rush to “get everything done,” we may lose our connection with the patient as a human being, thus compromising our effectiveness as healers.

Physicians' Own Wellness

This experience is exhausting for us physicians in every way. Global Medicine's Transformational Medicine faculty have recognized that the physician's own wellness enables his/her ability to heal and transform others.¹³ The program includes an entire “personal ecology” block offering experiential training in yoga, meditation, and other self-help strategies and modalities to:

“... apply a holistic framework in one's own life to enhance personal growth and health, ... to become an example for others in leading a healing life, and to create a path forward for ... continuing physical, mental, emotional and spiritual evolution and transformation, fueled by a thriving sense of awe.”¹⁴

Global Medicine thus transforms physician CME to a new level by recognizing and honoring the healing presence of the physician as an integral part of the treatment process.¹⁵

Where can such an approach lead? Physicians can arrive at an understanding that the allopathic model represents not *The Medicine*, but rather one of many medicines, each with unique history, culture, paradigm, vulnerabilities, and strengths. Education in a broad range of such systems empowers the experienced physician to address the wide range of patients and pathologies at that level where they need be met. Transforming medicine may require nothing less. ♦

This work was supported in part by a grant (R01-AT003314-01A1) from the National Institutes of Health, National Center for Complementary and Alternative Medicine.

◦ A Transformational Medicine Fellow, Global Medicine Education Foundation.

References

1. Elder C, Aickin M, Bauer V, Cairns J, Vuckovic N. Randomized trial of a whole-system ayurvedic protocol for type 2 diabetes. *Altern Ther Health Med* 2006 Sep-Oct;12(5):24-30.
2. Clark C, Sharma H. *Contemporary ayur-veda*. Philadelphia: Churchill Livingstone, 1998.
3. Nadkarni AK. *Indian Materia Medica*. Popular Prashkan Press, 1954.
4. Roth R. Maharishi Mahesh Yogi's Transcendental Meditation. Washington (DC): Primus; 1994.
5. Elder C, Ritenbaugh C, Mist S, et al. Randomized trial of two mind-body interventions for weight-loss maintenance. *J Altern Complement Med* 2007 Jan-Feb;13(1):67-78.
6. Wu Z. *Vital breath of the dao-Chinese shamanic tiger Qigong*. St Paul(MN): Dragon Door Publications; 2006.
7. White A. Measuring beyond the quality of life. *Complement Ther Med* 2003 Dec;11(4):212.
8. Woo B. Primary care—the best job in medicine? *N Eng J Med* 2006 Aug 31;355(9):864-6.
9. Gordon N, Sobel D. Use of and interest in complementary and alternative therapies among clinicians and adult members of the Kaiser Permanente Northern California Region: results of a 1996 survey. *Perm J* 1999 Summer;3(2):44-55.
10. Elder C. Integrating CAM into practice: the KP Northwest story. *Perm J* 2002 Fall;6(4):57-9.
11. Elder C. Application of the cooperative health care clinic model for delivery of Complementary/Alternative Medicine (CAM) care. *Perm J* 2003 Winter;7(1):55-60.
12. Hough H, Dower C, O'Neil EH. Profile of a profession: naturopathic practice. 2001 Sep. San Francisco: Center for Health Professionals, University of California, San Francisco; 2001.
13. Sutherland EG, Ritenbaugh CK. The practitioner as medicine. *J Altern Complement Med* 2004 Feb;10(1):13-5.
14. Global Medicine Education Foundation. Professional training program in Transformative Medicine [home page on the Internet]. Durham (NC): The Global Medicine Education Foundation; [cited 2007 Apr 25]. Available from: www.globalmedicineducation.org/programs_proftraining_intro.htm.
15. Kaptchuk TJ. The placebo effect in alternative medicine: can the performance of a healing ritual have clinical significance? *Ann Intern Med* 2002 Jun 4; 136(11):817-25.