Finding a Common Language: Resolving the Town and Gown Tension in Moving Toward Evidence-Informed Practice

Ben Kligler, MD, MPH, and John Weeks

What do we know? How do we know it?

vidence-based medicine...evidence-informed practice...patientcentered care...the art of medicine....

These terms fly around the landscape of integrative health and medicine with the potential to ultimately generate a meaningful consensus and a shared language for how we discuss clinical decision-making and clinical practice. With as clear a shared vision as we all know we have—that the empowerment and well-being of the patient is our ultimate goal—it should be easy to reach agreement on what we know and how we know it. In fact, the now inexorable progress toward a true interprofessional approach to care requires that we find a way to reach that agreement.

But more often than not, the discussion around evidence and knowing degenerates into a Tower of Babel. Every profession clings to its own view of the truth and speaks its own language, without enough substantive effort to understand the others. Some of us are deeply wedded to the notion that everything can be proven with randomized trialsdespite much recent evidence of the limitations and flaws of this perspective. In a 10-year review of original trials published in a major journal, Prasad et al. found that out of 363 articles examining a standard medical practice, 146 (40.2%) reversed that practice, while only 138 (38%) confirmed it. Even when we think we know, our methods show that we are wrong roughly half the time.

Conventional academic proponents of EBM are prone to diminishing the other components of the definition of EBM that, since its inception, has honored the subjective, individualized and tough to measure components of patient choice and practitioner experience. Unfortunately, our fervor to defend at all costs this approach to knowing what is good for our patients loses us the trust and confidence of our colleagues whose clinical practices are even more difficult to study using conventional research methods than are the drug-focused interventions for which those methods were designed.

Others of us speak the language of evidence yet may cite in vitro studies that suggest that a biochemical underpinning of a given approach is scientifically sound proof that this approach works in clinical practice. This undermines interprofessional communication. Given how often studies of actual clinical practices are reversed by further research, the notion that we can know what will work in clinical practice based purely on in vitro or animal research is flawed. There is nothing wrong with saving that the theory behind a given clinical intervention is based on in vitro or theoretical research while adding that the therapy has yet to be tested in clinical trials. But presenting one's clinical approach as "based on published evidence" when the evidence is not specifically from clinical trials does the opposite of promoting trust. At the very least, the parties

are not actually speaking the same language. Much evidence is now accumulating that in vitro and animal research may not capture the realities of human health and illness to the degree we would like to believe.^{2,3}

Some of us distrust the entire research enterprise. Why must clinical practices based on hundreds or thousands of years of accumulated experience be subjected to controlled study? This point of view has its own internal consistency. If the disciplines taking this position practiced in isolation-with no connection or relationship to the conventional healthcare system—then this position might be a fine place to stop. But as we move towards an integrated, interprofessional, team-oriented approach to care, the stance that says "trust me, because this is what my teachers taught me," is no longer a sufficient basis for communication and dialog. The value of historical, empirical evidence needs to be more explicitly acknowledged by the conventional forces of evidence-based medicine. But at the same time, the proponents of these other healing arts need to begin to engage more fully in the conversation regarding what types of methodologies can actually provide a truthful picture of their effectiveness.

That this dialog is taking place in a context in which a very high percentage of what is practiced and paid for by insurers in regular medicine does not have a sufficient evidence base to pass present day EBM standards adds tension. In day-to-day practice, much of regular medicine is effectively

grandfathered as reimbursed treatment. Newer and less-known practices—that may have two millennia of use to support them—are left outside of inclusion by the mere difference of when they got in the game. This double standard adds an economic dimension to an already challenging dialog.

So where do we go from here to forge a common agenda and language around what we call evidence and how we expect that evidence to inform our collaborative approach to practice? Two parts of the solution are easy; the third is harder.

The first step we recommend is to embrace the developing approach known as mixed methods research. This combines quantitative and qualitative methods to try to more fully describe the impact of an intervention. Although some of the most powerful conventional medical journals have yet to fully welcome qualitative studies for publication, increasingly the conventional academic medicine enterprise has begun to recognize that too much is being missed by emphasizing purely quantitative methods. Notably, the very existence of the Patient-Centered Outcomes Research Institute may be evidence of this need to elevate patient views. The effort to shift the medical industry toward a values-based system based on the triple aim of enhancing patient experience, bettering population health, and lowering per capita costs by its very definition urges that multiple methods be employed. Researchers from the integrative health and medicine field need to unapologetically champion the incorporation of qualitative methods into their work as evidence of their embrace of these important trend lines without fear of being viewed as "soft" or "unrigorous" by regular academic medicine.4

The second step we urge is to join in the growing momentum around the use of case reports as a legitimate means to accumulate new clinical knowledge. The recently published CARE guidelines, 5 now endorsed by 12 journals including The British Medical Journal of Case Reports, the Journal of Clinical Epidemiology, and Headache, provide a rigorous framework for reporting important results from individual cases.

If we use a unified format for case reporting as these guidelines recommend, we can generate an extremely large database of case report data. Although these data cannot replace the type of certainty that is proposed by those who promote randomized trials as the evidence standard, we can begin to provide meaningful data regarding the effectiveness of some of the multi-faceted interventions that are not amenable to study in a typical controlled trial. These have obvious value for functional, integrative, naturopathic, and any other whole person, multi-agent interventions. Practitioners of this type of clinical approach need to actively participate in publishing their cases using these new guidelines. This is a step toward more appropriate evidence than relying on in vitro evidence to argue for the effectiveness of their approaches.

The final step we recommend, though intuitive and straightforward for some of the integrative health and medicine professions, is most difficult for those of us who are more anchored to the conventional medicine vision for EBM. This is the need to be open and honest about how much of even our own type of practice is based on not knowing what evidence has to say. In real-life practice, we rely heavily on intuition and relationship to arrive at the right treatment approach. The power of the EBM movement within conventional medicine, and the way in which we stand in awe of the randomized double-blind trialdespite its own profound flaws-make it difficult and even heretical to talk openly about how much of regular medical practice depends on our comfort and skill in operating in this zone of "not knowing." We must accept that not only will the profound limits of randomized evidence always be there, but that these subtle and subjective abilities will always be part of what society expects physician practitioner to do well.

How will we ever "know" the right way to treat a patient with a complex undiagnosed pain condition? How will we "know" the best approach to treating a patient with chronic fatigue syndrome or morbid obesity? Many of the problems we see are exceedingly complex and individual in both the patient's experience

of them and in the process of finding the right path to treatment. We will always need to be skilled in the art of medical practice to be effective. There will always be many answers only available to us through intuition, experience, and patient-centered communication rather than through double-blind trials or systematic reviews. But as of this moment, we hide this from our students and residents. We hide behind the notion that every question can ultimately be answered with randomized clinical trials. We need to be open and honest with our students, with ourselves, and with those we may consider adversaries about the limits of what we can know with certainty from randomized blinded trials.

If all of us across the spectrum of medicine and healthcare can commit to these concepts—the importance of both quantitative and qualitative methods; the relevance of case reports as a way to capture information about the highly individualized approaches that characterize much of integrative medicine; and the inevitable need to accept the role of intuition, experience, and "not knowing" in making clinical decisions—we can arrive at a common understanding of what we mean by "evidence-informed practice." This common understanding will then let us walk together on a shared path for how to expand knowledge of what approaches are most effective with our patients. Accepting that there are multiple avenues to build that knowledge and that all have their limits and all have their appropriate application—but that all need to be applied with rigor and with an honest willingness to critique our own firmly held beliefs—is the key to building the common language that will best serve our patients.

REFERENCES

- Prasad V, Vandross A, Toomey C, et al. A decade of reversal: an analysis of 146 contradicted medical practices. *Mayo Clin Proc.* 2013; Volume 88(Issue 8):790–798.
- 2. Seok J, Warren HS, Cuenca AG, et al. Genomic responses in mouse models poorly mimic human inflammatory diseases. *Proc Natl Acad Sci U S A*. 2013;110 (9):3507–3512.
- Chandrasekera PC, Pippin JJ. Of rodents and men: species-specific glucose regulation and type 2 diabetes research. ALTEX;

- 2013. [S1868696 × 1309291X Physicians Committee for Responsible Medicine, Washington DC, USA].
- Felicity L, Bishop, Michelle M. Holmes. Mixed methods in CAM research: a systematic review of studies published in 2012. Evid Based Complement Altern Med. 2013, http://dx.doi.org/10.1155/2013/187365
 [Article ID 187365, 12 pages].
- Gagnier J, Kienle G, Altman D, et al. The CARE guidelines: consensus-based clinical case reporting guideline development. Global Adv Health Med. 2013;2(5):38–43.

Ben Kligler, MD, MPH, is a Vice Chair, Department of Integrative Medicine, Mount Sinai Beth Israel Medical Center and Past Chair, Consortium of Academic Health Centers for Integrative Medicine.

John Weeks, is an Executive Director, Academic Consortium of Complementary and Alternative Health Care.