

## Brother, Can You Spare a Paradigm?

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Having recently barely avoided an economic meltdown - a repeat of the Great Depression - it's worth reflecting upon the research accomplishments and directives in both mainstream and alternative medicine, and like the classic lyrics of the 1931 mantra of the Depression ("Brother, Can You Spare a Dime?"), wondering if all have been rightfully given their due of recognition.

The [Institute of Medicine](#) tells us it typically takes 17 years for a new, validated, efficacious and safe discovery to find its way into standard clinical practice.<sup>1</sup> Typically, but not always. You have to scratch your head in bewilderment over such instances as the following:

Minimally invasive technologies for the treatment of benign prostatic hyperplasia are in widespread use, yet no clinical trials have been performed to compare the risks and benefits of these treatments with standard surgical interventions.<sup>2</sup>

The Medicare program has spent millions of dollars each year for the home use of special beds for patients with pressure ulcers, despite the fact that no well-designed study demonstrates they improve ulcer healing.<sup>3</sup>

I mean, *really*. Besides this double standard that regrettably shows up all too often in medical practice, there is simply the basic problem in health care whereby rigor, so often assumed to be the gold standard in research, bypasses the equally important concept of *relevance*. Simply put by Tanenbaum 17 years ago, "Unfortunately for the applied-science model of medicine, rigour and relevance not only compete but are fundamentally irreconcilable. Patients are complex and particular ... [and] are routinely rejected from RCTs when complicating conditions threaten statistical relationships, no matter how much more physicians see complicated than uncomplicated cases."<sup>4</sup>

Put in concrete terms, to assume that the entire range of clinical treatment to any modality has been captured by the precision of analytical methods in the scientific literature "would be like saying that a medical librarian who has access to systematic reviews, [meta-analyses](#), Medline, and practice guidelines provides the same quality of healthcare as an experienced physician."<sup>5</sup>

But does all this mean the science jocks, research wonks, and policy freakazoids have no place in designing health care research? Absolutely not. It is more a matter of admitting what actually takes place in both the sciences and clinical practice, and building a meaningful paradigm from there. It's not as if clinical practice has all the answers, either. For, as N.C. David has suggested, clinical practice seems to consist of (1) a few things we know; (2) a few things we think we know (but probably don't); and (3) lots of things we don't know at all.<sup>6</sup> Obviously, help is needed here.

This sets the stage for realizing that, for a truly meaningful delivery of health care services to take

place in which the patient really *does* matter, we should consider there are basically two clinical reasoning strategies that work in parallel fashion. The first, which is the standard for all classical medical services, is *diagnostic*, which is the formation of a diagnosis related to a physical disability and impairment with the consideration of associated pain mechanisms, tissue pathology, and the broad scope of contributing factors. This is called *procedural management*.

The second, for the first time considering *context*, is the apprehension and understanding of a patient's illness experiences, "stories," contests, beliefs and cultures. It requires both the organization of biopsychosocial knowledge with communication skills, as well as the understanding of a patient's meaning and perspective. Known as *narrative (communicative) management*, it is acquired, having evolved from a combination of personal, societal, and cultural experiences. Both conscious and unconscious interpretations and emotions coalesce to make up views and feelings.<sup>7</sup>

It is this second strategy that so often characterizes the objectives of so many branches of alternative medicine, and one that is thankfully becoming more widely recognized – albeit with a long, long way to go.

Tracking this thesis-antithesis-synthesis dialectic further, Jeremy Swayne presents a more balanced view in which one is not to argue for less science, but rather for more and better science; better in the sense of being better attuned to the rest of life. Essentially, there seems to be an unfortunate preoccupation with learning to control the processes that go wrong, rather than learning more about enabling the processes to put things right<sup>8</sup> In other words, *wellness* has been overlooked.

In his book *Remodelling Medicine*, Swayne argues in conformity with my own viewpoints: Traditional medicine imparts a degree of untruthfulness when it presents a diagnosis (a description of what is going on) rather than the explanation of *why* something is what it is.<sup>9</sup> Ignored is the therapeutic effect of the doctor as well as the self-healing powers of the patient.<sup>10</sup>

Rather, new paradigms of research and [evidence-based](#) medicine that admit (1) modifications of the traditional RCT design; (2) the basic sciences; (3) whole-systems research; (4) comparative effectiveness research; (5) qualitative research; (6) cost-effectiveness issues; and (7) observational studies, including case studies and case series, all need to be admitted into the pantheon of medical evidence. Fortunately, I have had the opportunity to explore in some detail this reconstruction of evidence-based medicine elsewhere.<sup>11</sup>

It comes down to making a distinction between canonical versus conceptual thinking. The danger, according to B. Champion, is that in traditional approaches to evidence-based medicine (solely based upon [randomized controlled trials](#) and systematic reviews), they create a situation in which the rationale behind decisions is not explained. Critical appraisal is discouraged and clinical pathways end up resembling instruction manuals, in which users may develop technical proficiency, but lose their conceptual reasoning skills.<sup>12</sup>

Put into daily use, canonical thinking regrettably manifests itself every time you see a cashier struggling to make change, incapable of applying simple manual arithmetic since they have become fully dependent upon an electronic calculator. In civil aviation, it gets worse. Here, there are instances in which pilots have been found to revert to autopilots or flight manuals instead of deriving creative

solutions to unanticipated emergency situations.<sup>13</sup> Indeed, the lack of manual flight proficiency is believed to have contributed to the horrific crash of Air France Flight 447 on June 1, 2009 en route from Rio de Janeiro to Paris, with the loss of 228 lives.<sup>14-15</sup>

The take-home moral of this story is never to discount the experiential component of both the sciences and clinical expertise. It is precisely where both schools of thought originated and where they harbor the most creativity - to say nothing of vitality.

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