Knowing Is Not Enough

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Traditionally, medical education has focused largely on the acquisition of knowledge. With the exponentially expanding knowledge base underpinning medicine, no one can argue with the importance of this focus. Postgraduate medical education has primarily emphasized inpatient acute care and the developing and refining of technical and procedural skills in addition to further expansion of the knowledge base. It should be no surprise that most of us who have trained in this model emerge from training believing that if we could just know everything, we would be consummate care providers. Our role models and heroes in training have been those with extraordinary depth and breadth of knowledge, complemented by great technical expertise. It is no wonder we believe that knowledge is enough.

We then enter practice, which for most physicians is predominantly outpatient-based, and we believe that we are, in fact, delivering best care. To the extent that we worry about our clinical skills, our greatest concern is that we will miss an esoteric diagnosis, that we will fall short because of gaps in our knowledge. Annual dilated retinal examinations and blood pressure and lipid goals for diabetic patients? Of course we deliver on those—at least within the constraints of patient “compliance.”

Over the past 20 years or so, cracks have begun to appear in this conceptual edifice built on the supremacy of knowledge. In the 1980s, John Wennberg and colleagues at Dartmouth reported striking geographic variations in care delivery in the United States that were not explained by patient characteristics or other cultural factors. The most recent edition of the Dartmouth Atlas of Health Care shows that this variation is persistent and unexplained [1]. Numerous studies of quality indicators or process measures that have strong evidence linking them to desired outcomes show that judged by these standards, health care in the United States is mediocre at best. In a recent study led by the group at Rand, only about 55% of patients overall received recommended elements of care for the studied conditions [2].

The majority of physicians and other care providers, like the majority of automobile drivers, believe that their performance is above average. However, with the increasing collection of process-level data driven by public reporting, managed care plans, and “pay for performance” programs, providers are finding that their performance usually is not what they thought it was. For most of these performance gaps, knowledge deficit is not the issue.

For some years now, the frontispiece for every report from the Institute of Medicine (IOM) contains the following quote from Goethe: “Knowing is not enough; we must apply. Willing is not enough, we must do.” Indeed, this gap between knowledge and its application is a principal theme of the IOM report Crossing the Quality Chasm [3], which proposes 6 broad aims for care: it should be safe, effective, patient-centered, timely, efficient, and equitable. Some organizations, including our own, have resequenced these aims into an acronym: “STEEP” goals.

There is, in fact, a set of techniques and disciplines, such as those outlined by Nolan in The Improvement Guide [4], that are delivering results in bridging this gap between knowledge and its application. Although as Shojania and Grimshaw have recently pointed out [5], the evidence demonstrating the effectiveness of these techniques is still not incontrovertible, many groups are demonstrating impressive results. This potential led Donald Berwick, CEO of the Institute for Healthcare Improvement (IHI), to challenge U.S. health care providers to save 100,000 lives in the 18 months preceding 14 June 2006 by using such approaches to implement 6 evidence-based practices.

In this issue of JCOM, Gitomer describes the use of disciplined and structured approaches to quality improvement in an ambulatory general internal medicine practice. Working within the framework of the IHI IMPACT collaborative, this group used standard quality improvement methods to improve several aspects of quality in their practice. Gitomer’s initial initiatives to improve telephone access, improve communication about delays, and improve access on the surface address patient-centeredness. However, most improvements in quality address multiple STEEP dimensions. Improving access and communication also have important benefits in safety, timeliness, and efficiency. In the second year of their efforts, Gitomer’s group addressed blood pressure control in patients with diabetes. Simple interventions dramatically improved performance in this domain of effectiveness. Was the baseline mediocre performance due to a lack of “knowing?” Almost certainly not.

Knowing what to do only provides potential benefit to our patients and clearly “is not enough.” Applying that knowledge is when the benefits accrue. This requires rigorous methods and skills to be accomplished reliably. It is in these dimensions that we have the opportunity to provide the greatest benefit to the largest number of patients.
References


