

## FLASHBACK 40

# THE COGNITIVE SPECIALIST IN 2018: BELEAGUERED, BUT VERY MUCH ALIVE

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Looking back at my 2008 *Forum* article on “The Death of the Cognitive Specialist?,” it turns out I was right about a few things, wrong about several, and naïve about at least one.

Now, as then, cognitive services are undervalued by payers and by society. You can see this in both the continued skewing of fee-for-service reimbursement toward procedures and the enduring popularity of radiology, ophthalmology, dermatology, and the surgical subspecial-

ties among medical students. When it comes to specialty choice, the issues of lifestyle, prestige, and perceived control do matter. But so does money, and the pay gap between the cognitive and procedural specialties is a persistent barrier to achieving a healthy specialty distribution in the United States.

Now, as then, the central task of medicine remains to help patients and their families make good decisions about health care. Over the last 10 years, the available

### The Death of the Cognitive Specialist?

—Richard L. Kravitz, MD, MSPH

A neighbor and I stopped to chat as we placed our garbage bins on the street.

“What kind of doctor are you again?” he asked.

“A general internist,” I said. Seeing a blank look, I added a phrase that I knew had been thoroughly tested in American College of Physicians focus groups. “A doctor for adults.”

My neighbor nodded knowingly, but I could tell he was confused. “I could never go in for a medical career. Too much blood. How do you stand cutting into people?”

I was outside without a jacket, and the air had a snap to it. I shrugged, mumbled something about needing to get back inside for dinner, wished him a pleasant evening, and turned away. I think he was pleased that I chose not to bend his ear.

I could have said more.

I could have told him, that as a general internist, I don’t do much cutting. I do a lot of talking, examining, thinking, and counseling, but very little excising, implanting, reconstructing, or ballooning.

I could have told him of the historical tradition linking internists and other

cognitive specialists to Hippocrates, Galen, Avicenna, Maimonides, Vesalius, Harvey, and Osler. I might have added that surgeons and other procedural specialists hailed from a different tradition. According to *Wikipedia*, it was not until the late 18th century that the Company of Barber-Surgeons was dissolved into its separate professions.

I could have told him that despite this genealogical distinction, cognitive specialists like general internists aren’t paid very much, at least compared with latter-day barbers. In 2004, the median income for family physicians and general internists was \$165,000. A generous sum to be sure, but relatively puny compared to radiology (\$407K), ophthalmology (\$280K), anesthesiology (\$297K), dermatology (\$309K), and the surgical subspecialties (e.g., urology, \$335K, and orthopedics, \$396K). As Tom Bodenheimer has pointed out, the genesis of the pay gap is complex, but the consequences are clear: Medical students are flocking toward the procedural specialties. These bright young people can see what society values (performing technical procedures and interpreting images) and what it does not value (listening, thinking, and deciding).

I could have told my neighbor that

the impending demise of the cognitive specialist could not come at a worse time. Between 2006 and 2030, the population over age 65 is expected to nearly double, from 37 million (12% of the population) to 71 million (20%). Older people make nearly twice as many doctor visits per year as younger individuals, and 37% have a severe functional disability. Aging individuals need drugs, procedures, and imaging, but even more, they need a substantial amount of time, care, and judgment to tackle their complex problems. This is the domain of the cognitive specialist.

Michael Barry argued during his 2005 SGIM Presidential Address that the pre-eminent task in medicine is helping patients and their families make good medical decisions. “I can see what you mean with major surgery,” my neighbor might have said, “but blood tests and imaging are harmless. Why not get more information so you’re really sure?” He’s a lay person. How could he know that screening for prostate cancer in an 80-year-old man, for breast cancer in a 35-year-old woman, and for lung cancer in almost anyone will almost surely do more harm than good? Or, for that matter, getting a stent placed in that distal coronary

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blockage might not be any better than just continuing to take his medicine. He needs someone to explain it to him.

Or does he? Medical information is everywhere: in newspapers, on television programs, on the Internet, and as part of those ubiquitous direct-to-consumer drug advertisements. However, there is a distinction between data, information, knowledge, and wisdom. Data and information are raw facts and simple relations. Normal oxygen saturation on room air exceeds 95%. Pulmonary embolism is often associated with decreased oxygen saturation. Knowledge is the understanding of patterns. A post-operative patient with dyspnea, tachypnea, tachycardia, diminished oxygen saturation, and a normal chest X-ray has a pulmonary embolism until proved otherwise. Wisdom involves understanding principles and making good decisions in the face of uncertainty. We need to start heparin in this individual pending a diagnosis, but aim for an aPTT at the low end of the therapeutic range because of the patient's history of GI bleeding. In medicine, making good decisions requires integrating clinical data, medical knowledge, and patient values. The practitioners of this art are cognitive specialists. Some might call them *doctors*.

Do we still need this kind of doctor? The physician as information broker begins to seem quaint when web-based search engines advance to the point where they can instantly retrieve individualized health information tailored to the needs and prior search history of

the patient. (This reality is closer than we realize, as portrayed in the fascinating book *Search* by John Batelle.) Nevertheless, there is a lot of junk out there, and patients need help separating the informational grain from the chafe. Besides, many critical medical decisions do not permit the luxury of surfing endlessly through Internet sites of dubious provenance; answers are needed in minutes or hours, not days or weeks. And let us not forget that large numbers of Americans lack the computer access, navigation skills, and health literacy needed to take advantage of the Internet information cornucopia. Electronic wizardry will not solve their problems. They too need a doctor.

One way to assess demand for a product or service is to look at what people actually do when they have the money. The rise of "concierge care" seems instructive. Relatively well-heeled patients, like Ilse Kaplan, profiled in a 2005 *New York Times* feature, are more than willing to pay for the personal attention and clinical wisdom a good "cognitivist" can dispense. The problem with this model is that access is currently limited to the top 5% or 10% of the income distribution. Concierge care will do nothing to narrow income-related health disparities and could make them worse. Nevertheless, I believe the popularity of concierge care signals pent-up demand for the kind of personal care, decision support, and quality control that is currently available only on retainer.

As for the future, there are three

possible scenarios. In the first, the cognitive specialist fades away as primary care is taken over by physician extenders, chronic conditions are managed by nurses, and diagnostic consultation becomes a subspecialty of radiology. In the second, general internists and other cognitive specialists recede into specialized niches like concierge care, hospital-ism, and second-opinion services. Niche seeking is nothing new in medicine; witness cosmetic dermatology and psychoanalysis. For internists, however, it would represent a full-on retreat not only from the Oslerian ideal but from the aspiration to be comprehensive doctors for adults. Only the third alternative offers some reserve of hope. In this scenario, cognitive specialists (with general internists in the lead) develop new practice models such as the patient-centered medical home and restructure clinical training to emphasize information retrieval, interpretation, and communication. I don't mean just adding a few lectures on medical informatics to the medical curriculum. I mean radically reengineering GIM training so that general internists emerge as the undisputed experts in helping patients "get it right."

The death of the cognitive specialist? The prognosis is guarded. But if we can reinvent ourselves as masters of clinical strategy, mavens of the medical Internet, and leaders of teams and systems—in short as the quintessential brokers of medical knowledge and wisdom—rumors of our demise might be premature.

treatment options, the volume of medical information, and the ease with which that information can be accessed has increased dramatically. Yet, it remains as difficult as ever to distill data into knowledge and to temper knowledge with the combination of experience and discernment we call *wisdom*.

Now, as then, concierge medicine remains a window into what patients genuinely value: time, attention, caring, and respect. We should not be so surprised by this; these are the

fundamental ingredients of doctoring. To its critics, concierge medicine is expensive, difficult-to-scale, and fundamentally unjust. Yet, development of broadly generalizable practice models that promote population health, improve the patient experience, contain costs, and support clinician well-being has been slow. Finding creative ways to support primary care (narrowly) and the cognitive specialties (more broadly) is at least as deserving of a "moonshot" as another war on cancer. But it is hard

to build support for this in Congress.

My 2008 *Forum* article got certain things wrong. For example, I stated that "screening for prostate cancer in an 80-year-old man, breast cancer in a 35-year-old woman, and lung cancer in almost anyone will almost surely do more harm than good." The lung cancer example didn't age well: low dose CT scanning has made early detection of lung cancer in high risk individuals a reasonable pursuit. The provi-

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sional nature of clinical science is a humbling reality, but it's consistent with my sense that the best clinicians walk a careful line between medical skepticism and enthusiasm, demanding evidence but also entertaining the possibility that breaking with convention might, under the right circumstances now or in the future, produce better results for patients.

As for naiveté, my suggestion that diagnostic medicine might—if we're not careful—be ceded to radiologists now seems quaint. Given the pace of technological progress (the first iPhone was sold in June 2007!), the more likely scenario is that radiologists themselves will be replaced—by artificial intelligence. If I were a radiologist, I'd be worried. I'd also start looking for ways imaging specialists could add value to

patient care without actually reading images. (This is not far-fetched. We will need specialists who can help guide the selection of an increasingly complex array of imaging options and integrate imaging results with clinical, laboratory, and genetic information—and with patients' values and preferences.)

My 2008 piece gushed over the patient-centered medical home (PCMH) and, at least implicitly, over electronic health records. Both, I thought, could help free up cognitive specialists to do what they do best:

- collect patient information through careful history taking, focused physical examination, and judicious use of diagnostic studies;
- distill that information through

evidence and experience; and

- communicate conclusions in the spirit of shared decision-making.

However, by most early accounts, the empirical relationship between PCMH designation and improved patient care is weak. And EHRs, while improving care in some ways, have slowed clinical work, created a physical barrier between physician and patient, and added to the length of the clinical workday. These problems are solvable, but that will take resources and commitment.

In summary, cognitive medicine in 2018 remains underappreciated, undervalued, and (relatively) underpaid. But the cognitive specialist is still very much alive.

And that is a good thing for patients.

**SGIM**