Competence, Confidence, and Certification: Observations from Both Sides of the Aisle

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Most definitions of a profession include the tenet that members set standards of service and hold themselves accountable to meet them. This includes requirements for rigorous specialized training with a formal qualification process and for ongoing reassessment. Although these principles seem foundational for the profession of medicine, we are currently witnessing two somewhat contradictory concerns playing out: one is about a perceived lack of competence among our new practitioners, while the other worries that the standards we have tried to use to reassess their skills are onerous and without meaning. I have had the opportunity to view these issues from two very different angles—as a chief medical officer, I oversee credentialing, privileging, and recredentialing for my hospital, and, at the same time, I have served on the American Board of Surgery and more recently the Accreditation Council for Graduate Medical Education (ACGME) Board, where I have participated in the development of some of these national standards. This perspective seems an appropriate place for some random observations on these topics, focusing primarily on general surgery, although I believe they have relevance to other specialties.

Recently, there has been a growing clamor about the readiness of our graduates to enter practice, not only in reference to the maturity of their skills [1], but also with regard to the confidence they have to apply these skills [2]. Although these issues have been raised in multiple disciplines, they are perhaps most evident in the procedural world and particularly the surgical specialties. Undergraduate medical education undoubtedly holds some responsibility for this problem and, ideally, could be part of the solution by preparing students for their chosen discipline more adequately. At least at present, however, the two stages of medical education

(undergraduate and graduate) are accredited by different and only tenuously connected bodies (Liaison Committee for Medical Education (LCME) and ACGME, respectively). One future solution might be an effort at better integration; indeed, this might extend to continuing medical education level as well. In fact, ACGME and the Accreditation Council for Continuing Medical Education (ACCME) are beginning to work together.

At the GME level, a host of factors have contributed to the concerns about the competence of graduates. In my specialty, general surgery, the greater technical expertise required for minimally invasive procedures, the significant reduction in work hours, and the expanding presence of subspecialist trainees competing for cases have all had an impact. But there have also been enormous efforts to improve residency training. Like many specialties, general surgery is on a journey from time-based to competency-based training. This has included the development of a specific curriculum that defines the knowledge and skills of graduates (the Surgical Council on Resident Education (SCORE) curriculum [3]). Likewise, the ACGME Milestones project has begun to define the specific hurdles on a trajectory to proficiency [4].

Despite real improvements in the quality of education, however, there is considerable evidence that our graduates are less confident in their ability to practice independently [2]. I believe that some of this lack of confidence is appropriate—today, in this metric-driven world, new practitioners are much more under a microscope and also face a much harsher medico-legal climate than young practitioners did in the past. Perhaps more significant has been the loss of the autonomy that residents had when I trained. We spent a significant portion of our final years operating independently. We could call for help when we needed it, but this was far from encouraged. By the end of training, we were ready for independence and clearly had the confidence to tackle problems we had never seen before. Today's residents have not had the opportunity to gain this confidence.

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Nevertheless, I believe that, for the most part, this has been a step forward. First, that autonomy that we had, usually with patients who were uninsured, was on occasion misplaced, and care sometimes suffered. In addition, instead of teaching themselves how to do a procedure, today's trainees have more opportunity to learn directly from their faculty rather than through trial and sometimes error. Confidence and competence are clearly related, but it would be incorrect to assume that wavering confidence for a moment in the operating room is reflective of a wider lack of competence. In the fast-emerging field of surgical non-technical skills [5], asking for help and showing some humility and collegiality reflect confidence in the system and a practitioner's own recognition of the limits of his or her expertise. In the era of team-based surgical care, confidence and self-efficacy build not only from realizing one's own technical ability but also by collaborating with others to achieve the excellent results that no individual could achieve alone. Finding balance is important, and perhaps our real challenge is to train physicians who have the humility to ask for help when they need it and to develop systems that make resources available when necessary. Such systems include mentorship by colleagues and probably some consideration of formal "transition to practice" programs such as that being developed by the American College of Surgeons [6].

With better metrics, there is, in fact, growing evidence that most practitioners continue to improve until some point late in their careers, when the aging process begins to compete with improvements in judgment or technical expertise [7]. At some point, this may create some dissonance with our current training paradigms—our current GME system is built on the concept that graduates are not just competent but proficient and, in some cases, experts when they leave training. This makes it all the more important that we continue to strengthen and clarify the assessment and reassessment process subsequent to training.

Unfortunately, the process today is byzantine. The typical mid-career physician has graduated from an accredited medical school, completed an accredited residency or fellowship, passed a generic medical licensure examination and one or more board examinations, obtained and renewed a state license, registered and reregistered with the state and federal DEA, credentialed and privileged at an institution and with an untold numbers of payers, undergone focused and then ongoing professional practice evaluation, and usually been recertified by their board. These processes are both time-consuming and costly, with considerable duplication of effort. The unfortunate reality is that, beyond the initial training, few if any of these mechanisms really have substantial meaning. Although I do think initial board certification assures a certain level of competence, I am not certain any of these other processes currently really add much value.

The United States Medical Licensing Examination (USMLE) is more of a "check the box" hurdle than a meaningful standard. State licensure and hospital credentialing and recredentialing identify the physician with lots of malpractice cases or patient complaints, those who have lost privileges at another institution, and those with a criminal record; unfortunately, they have a difficult, if not impossible, time assessing quality of care.

Privileging is usually based on the scope of specialty training, although we know there is significant variability among training programs. We have little data on whether and when skills are transferrable between procedures. Although some institutions are beginning to use volume as a surrogate for procedural credentialing, learning curves are variable between individuals, and it is controversial even for the most complex procedures [8]. Likewise, when a physician has had a sufficient volume in the past, we know very little about how and when their skills decline if not used. We have few validated assessment tools and have a long way to go to tackle the issues of competence versus proficiency versus expertise. A few institutions have begun to develop processes for evaluating the aging physician [9]; unfortunately, most testing tools lack sensitivity, and we tend to use other mechanisms to encourage senior physicians to stop practicing.

The Joint Commission-mandated Professional Practice Evaluation (Focused [FPPE] or Ongoing [OPPE]), regular (more than once a year) assessments of physician-specific quality metrics, is an aspirational concept. Unfortunately, physician-specific outcomes data, because of the small volume, is nearly impossible to risk adjust. As a result, the most meaningful OPPE processes have focused on process measures such as timely medical record completion and frequency of appointment cancellations.

The much maligned Maintenance of Certification (MOC) process developed by the American Board of Medical Specialties (ABMS) faces many of the same issues. MOC is controversial within the medical community, with proponents claiming that it is a voluntary program that improves physician knowledge and demonstrates a commitment to lifelong learning. Critics claim that MOC is an expensive, burdensome, involuntary, and clinically irrelevant process that has been created primarily as a money-making scheme for the ABMS. Originally conceived as a mechanism for professional self-regulation, with the rationale that if we did not do this ourselves others would do it for us, the process got ahead of itself, mandating requirements without data to suggest that they would have any impact. In response to the outcries from the community, there are now at least two alternative boards with less stringent processes, and a number of states have passed laws prohibiting the use of MOC in either hospital or payer credentialing. In response, many

boards are now significantly reducing their requirements in an effort to regain the trust of their diplomates.

For these issues, Einstein's warning that "We cannot solve problems with the same thinking we used when we created them," seems appropriate. So where do we go from here? Around 1000 BC, the Persian religion Zoroastrianism set simple standards to earn the right to practice medicine [10]. The physician candidate had to prove himself by treating three heretics—if all lived, he was considered fit to hang up a shingle, while, if any died, he was denied that privilege. In contrast, today, both the initial entry and the privilege to continue practice are overseen, perhaps less than adequately, by multiple authorities that sometimes act completely autonomously. In addition, we have no simple metrics for practice evaluation. To fix this process, we need to address both these issues.

The first part of a solution might be to try to better integrate the oversight. Competence cannot be adequately evaluated at the national (ABMS), state (Board of Registration in Medicine), or even hospital (Credentialing Committee) levels but needs to be addressed locally. In fact, the multiplicity of authorities and processes currently detracts from any single mechanism. It seems to me that the Joint Commission's OPPE process or something like it—regular evaluation of defined metrics by a direct supervisor, chief, or chair—is the ideal platform and could become the basis for each of the other entities' processes. A meaningful local process might eliminate the need for counting CME credits, recertification exams that often have little to do with the individual physician's practice, and much of the often onerous paperwork and expense associated with the current redundant processes. Endorsement of the OPPE process by other entities would give OPPE the teeth it needs to become more than a "check the box" process.

This would only be successful if we could develop more meaningful metrics. As a chief medical officer, I have found that most "problem" physicians are identified not by the recertification process, but through the concerns of colleagues, residents, and other caregivers. Although this usually occurs at a later stage than is desirable, if we encouraged feedback, this might not be the case. There is growing experience with the use of 360° evaluations to provide feedback, and this process has even been adopted by one board [11]; it could be utilized more systematically. Recent data suggest that the public can watch videos of surgeons operating and predict which ones will have more complications [12]. Most surgeons, however, finish training and never again have a colleague, much less an assessor, observe and provide feedback in the operating room; I am sure that this approach would have value in the office setting as well. Although the use of preceptors and proctors has been advocated and the American College of Surgeons is exploring this process [13], they are seldom utilized except in the setting of real problems. I

would suggest that regular direct peer evaluation, incorporating both 360° evaluations and formal peer assessment, might provide a meaningful basis for OPPE. Considerable effort has been made on developing validated operative and non-operative assessment tools for trainees [14]; it seems that these could be adapted for use in an OPPE-like process as well. I am not sure we could transition to such a process immediately; most physicians would balk at the idea of a high-stakes assessment by a peer. The recent interest in coaching—the concept that physicians, like athletes and musicians, would benefit from regular feedback—might provide an intermediate step in arriving at such a process [15].

Although medicine remains among the most noble of professions, inevitably in today's world some of the bloom is off the rose. Fixing this is obviously easier said than done, but it seems to me that there is some urgency to these issues. Although I tend to believe that many difficult issues become easier with time, in this case, the risk that we as a profession will lose control to others and therefore our right to call ourselves a profession, is real. To my mind, this would be a grievous mistake.

In nothing do men more nearly approach the gods than in giving health to men.

—Cicero

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