Sharpening the Focus on Systems-Based Practice

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In September 1997, the Accreditation Council for Graduate Medical Education (ACGME) committed to using educational outcomes as an accreditation tool. A Competency Advisory Committee, which was chaired by one of us (P.B.B.), was established and, with the help of ACGME staff in 3 meetings over the course of several months, gathered and reviewed the literature on physician competency. We studied the pattern of geometric growth in the volume of program requirements, including the increasing number of times the word "must" was used over the past 2 decades. We asked many experts, educational leaders, faculty, residents, and the public to rank order competencies as to importance and feasibility, and then settled on the 6 general competencies that are now widely known and used.

We could have chosen many potential "competencies" but settled on 6 because we thought they reflected elements of medical practice common across specialties, and we knew that we and our friends could remember 6 things. We thought that if one had to go to a document to look up the competencies, one of their major purposes would not be well served. We wanted to improve patient care by improving resident education, and we thought that having 6 easily remembered competencies would, in fact, promote conversations and foster cooperation across specialty boundaries about what it takes to make a good physician. As the late Marvin Dunn, MD, former Director of Resident Review Committee for Activities, said: "The competencies enable conversations about the work of medicine."

Since the 1999 adoption of the competencies by the ACGME, the competencies have gained wide acceptance by the community. They have been adopted by the American Board of Medical Specialties (ABMS) and its member boards, by the Accreditation Council for Continuing Medical Education, by the osteopathic community, and by several nursing groups. Each specialty has reviewed the general competencies and clarified their meaning where necessary to make them fit their specialty. From time to time people from various disciplines have requested that ACGME add to the list of competencies. One of the more common requests is to add a seventh competency: procedural competency. Others have asked to include teaching skills, cultural competency, teamwork, practice management, safety, and others. Each proposed change has a group of individuals in support of the particular change. This group is not broadly representative of the entire field of medicine, but is interested in the particular change. To date, ACGME has resisted the temptation to expand the list, believing instead that deconstruction of physician competency must be balanced with keeping one's eye on the whole; that is, ACGME is a "lumper" rather than a "splitter." Measurement of competency usually invites deconstructing a given competency into smaller parts and can be done using the smaller part as representative of the larger competency without compromising the larger interspecialty conversations that have proven so useful. It is possible that most of the suggestions could be accommodated by attachment to an existing competency, but any changes should serve the whole medical community, should benefit from compelling evidence of the need to change, and should be assessed in the 4 categories of measurement tools: cognitive test, direct observation, portfolios, and 360-degree evaluation.

Systems-based practice offers an example of one of the more difficult competencies, and one that has fostered many conversations, seeking clarity about meaning. One conversation was especially revealing; it occurred early on as the competencies were being introduced. The setting was an ABMS meeting. The questioner asked: "As to systems-based practice, what happens if you are not practicing in a health maintenance organization?" The questioner was very bright and a dedicated educator but, like many physicians in 1998, had a narrow operating definition of systems that excluded most of their world. Another physician, an orthopedic surgeon, asked Marvin Dunn: "What is systems-based practice? What does that have to do with us?" Marvin responded: "That's what happens when you cut off the wrong leg." The surgeon said: "I've never done that," but conceded that others had and that the problem needed to be addressed.

A useful metaphor emerged during the conversations, one that doctors readily understood. Systems are like physiology. If you are a perfectly functioning kidney cell and your heart fails, you are going to fail. Doctors immediately got that. They realized that they are surrounded by systems that have profound effects on their work. Residents for decades have been socialized to cope with, rather than master or redesign, the systems in which they work. In fact, many have taken pride in how they are able to "protect" their patients from the system, rather than

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see themselves in a system leader or designer role. They, more than faculty, know the flaws in the system; it's what they mean when they say: "It's really weird how they do things around here." It is time to incorporate mastery of systems as part of the educational agenda; the well-being of both patients and doctors depend on these skills.

Shared assumptions are the glue that holds a diverse and loosely coupled culture together; they enable communities to define themselves, to adopt values, and to become faithful to them. The philosopher Ludwig Wittgenstein[1] observed that "you cannot enter a world for which you do not have the language." The language of "systems" invites our entry into today's world where patients meet more than one professional, where the festival of measurement is vibrant 24/7/365, and where we struggle to make good promises to one another. Systems language invites new conversations and attention to some of the limits of some of our familiar assumptions.

One-to-One Versus Many-to-One

We assume that the doctor-patient relationship is a one-to-one relationship when in fact it is more like 20 to 1; 20 professionals of various sorts each operating as though they were in a one-to-one relationship with the patient, leaving it to the patient to sort out the conflicting priorities and accountabilities. Two generations ago, we savored images of dedicated, resourceful, sometimes heroic, soloist health professionals. Today we realize that these romantic images are discordant with the patient's reality when many professionals are involved in their care, often in a single episode of illness or care. We have moved from a "one-professional/one-patient" memory to a "many-professionals/one-patient" reality.[2] Lacking clarity about this, we have failed to design roles, responsibilities, and accountabilities in ways that enable safe, high-quality, good-value care for patients and pride and joy in our professional work.

With this migration toward interdependent work has come new importance for the relationships we have with one another: the information we use, depend on, move and share; the degree to which we have a shared aim of our common work; and the ways in which our knowledge and discipline-specific systems of terminology and language connect and inform our common work for the patient as beneficiary. It also has enhanced our focus on the features of the setting and the contexts in which we do our work; how we design and make changes; and how we assess and address "good value" in health care.

Although the reality has changed, we have legacies of what it means to be a medical professional, what it means to occupy the professional office of "physician" and "nurse," and what it means to function as good stewards of others' trust, others' vulnerability, others' resources as they together pursue health in these new realities. These legacies cling to autonomy and invite professional discipline-specific jingoism while diminishing all of the necessary others that are actually needed for good care today. The assumptions holding these legacies in place are made vivid when we think of the work in systems language, like a hematoxylin stain applied to tissue makes cellular and subcellular structures vivid for histologic study under the microscope.

Assessing the Performance: Box Scores and Beyond

Attention to health care reform is often provoked by measures that help clarify the currently unmet needs and gaps. It is tempting to believe that the important performance of these systems can be assessed by summing the total of the work of those involved in any particular system. This "box score" mentality fails to account for the synergy involved in the truly interdependent work done in service of a common aim. Measuring individual contributions to effective interdependent work requires a clear understanding of how these systems actually work as they confront the simple, complicated, and complex challenges that individual patients, caregivers, and specific contexts present. One might call this the "Shane Battier Effect." Michael Lewis[3] wrote about "The No-Stats All-Star," detailing how Shane Battier, a basketball player for the Houston Rockets who has only mediocre personal statistics, has the remarkable effect that whichever team he plays for does much better when he is playing and the opposing team does much worse than usual. Magical things seem to happen when he is playing, things that are not reflected in measurements of his personal performance. Instead, his presence is somehow tightly correlated with extraordinary team performance. Systems language invites us to consider whether such a thing occurs in medicine. Perhaps one skill that systems language reveals is the skill of enabling others to perform better.

Making Good Promises About Systems, and Seeking Forgiveness When They Cannot Be Kept

Hannah Arendt[4] noted that for society to function, we must make promises to one another. Such is the case when we work together with others—including patients—to diminish the burden of illness. Making good promises involves knowing the actual performance of the systems in which we work, knowing our own role in the interdependent production of the effects of these systems. Arendt goes further to suggest that if we make promises, we must be prepared to seek forgiveness for the times when our promises are not kept; when we have not been accurate in our understanding of the real way(s) the system performs, when we have failed to do our part in the interdependent work and the patient has been misled or harmed.

One skill that the language of systems-based practice invites is the ability to make good promises to professional colleagues and to understand how to both seek and grant

forgiveness appropriately; however, it is also necessary to enable good promises and forgiveness with and from patients. Nowhere is this more evident than exploring the promises offered on many hospital websites. The website makes promises—best doctors, best technology, best…—that create high expectations, expectations that are soon incongruent with the patient's actual experience, and that are incongruent with what all who work there know to be true. In this example, professionals have abdicated their responsibility to tell the truth and have delegated the work to various public relations departments. Good promises depend on the truth, and the truth depends on deep knowledge of system performance and the ways in which individuals work together to make today's health care. Individual performance is essential, but system performance and system promises incorporate more than individual performance and reflect what actually meets the patient's experience of health care today. Good systems make it easy to do the right thing and hard to do the wrong thing. It is time to replace public relations with data, data interpretable by both patients and the professionals in the system.

Sustainable efforts to improve health care require acknowledging and understanding how 3 things are inextricably linked: the quality of health professional formation, the quality of patient care, and the quality of system performance.[5] Good learning requires good patient care, and neither can be accomplished if the system in which they operate is not enabling. Much has been learned since the introduction of the competencies; they have fostered good conversations. As faculty and residents have struggled with what is meant by systems-based practice, they have deepened and broadened the knowledge, skills, and attitudes required to enhance system performance. They are beginning the journey to mastery of today's health care. Did we get this competency right? If so, residents of the future will diagnose and treat systems as they do patients and will be socialized to master and design rather than cope with and fight the systems in which they care for patients.

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