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Individuals, Systems, and Professional Behavior

Evan G. DeRenzo

Evan G. DeRenzo, PhD, is a Bioethicist in the Center for Ethics at the Washington Hospital Center in Washington, D.C., *ederenzo@worldnet.att.net.*

INTRODUCTION

The Outcome Project of the Accreditation Council for Graduate Medical Education (ACGME) has set a difficult and important goal for residency programs.[1] Of its six general competencies, the inclusion of an explicit focus on systems-based practice is recognition of the radical changes needed to achieve excellence in medicine. Although the consideration of systems-based organization has been gaining credibility for many years across a variety of fields, it has yet to be embraced in medicine.

Systems thinking represents a profound shift in understanding organizations and processes. Systems thinking rejects a mechanistic, reductionist understanding of organizations and processes in which the whole is thought to be merely the sum of the parts; in which the primary focus is on the nature of the part rather than the interactions between and across parts. Rather, systems thinking understands organizations and processes as interactive, with the parts as subsystems and the system itself as a part of a larger suprasystem. Systems thinking understands that the parts are not merely additive, but that they affect each other. The whole is now understood to be far more than the sum of the parts.[2] Today, systems theories dominate the field of organizational science. One can even see systems thinking creeping into medicine. Healthcare organizations, such as Intermountain Health Care, apply systems-based practices to their healthcare delivery processes, resulting in excellence in patient outcomes.[3] Juxtaposing systems thinking with traditional medical practice, however, is difficult for many. This may be because applying a systems approach can seem almost heretical to medicine's moral traditions.

At its heart, medicine is about the relationship of an individual physician to an individual patient. To be a physician, or at least a good one, is to take on the persona of healer, caregiver to the sick and the needy. To be a patient is to suffer, to feel pain and fear, to experience loss, to face death. To be a patient is to give up equality and to be forced to trust. These complex human experiences make the patient dependent on the skill, competence, compassion, and professionalism of his or her physician.

A contemporary perspective on the traditional doctor-patient relationship, however, encourages thinking of patients as customers or consumers, individuals entering into a contractual relationship for medical services. Thinking of patients this way is appealing. It is far less complex to construct morally acceptable roles in a relationship of equals than in one in which the weak is dependent on the stronger. But patients, especially the sick, frail, or frightened, will never be equal partners entering into an exchange of goods and

services such as one does when buying a loaf of bread or a new car. The conditions of need that bring a patient to a doctor are inequality in health, knowledge, and power.

Appreciation of the dangers for abuse from the unequal power distribution of this relationship has produced centuries of scholarship and professional attention to building protections for patients into the doctor-patient relationship. Now, into the ancient and unchanging moral core of the doctor-patient relationship, comes an awareness of the multiple systems that influence this primary dyad, and an appreciation of just how profoundly influencing these systems are. This awareness is exemplified by the ACGME's competency in systems-based practice. Centuries of attention on protecting patients from potential abuse by physicians has expanded to include attention to protecting patients from the potential abuse of today's healthcare delivery systems.

THE TASK

The ACGME has set a difficult task for residents and resident education program directors and supervisors. The ACGME General Competency states, "The residency program must require its residents to develop the competencies in the 6 levels below to the level expected of a new practitioner. Toward this end, programs must define the specific knowledge, skills, and attitudes required and provide educational experiences as needed in order for their residents to demonstrate the competencies." Specific to the competency on systems-based practice, it states:

> Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value. Residents are expected to:
>
> - understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
> - know how types of medical practice and delivery systems differ from one another, including methods controlling health care costs and allocating resources
> - practice cost-effective health care and resource allocation that does not compromise quality of care
> - advocate for quality patient care and assist patients in dealing with system complexities
> - know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance.[4]

Acquiring the requisite knowledge, skills, and attitudes will be challenging for residents. But what is interesting, and perhaps more pronounced for this competency than for any of the other five, is that assuring that residents have the educational experiences necessary to develop the knowledge, skills, and attitudes to demonstrate competency in systems-based practice will require that everyone throughout the systems in which the residents train and work model the practice of medicine with a systems-based approach. Anything less won't work.

Resident training programs are subsystems within the suprasystems in which residents work and train. No training program, whether it is of residents or any other category of trainee, will ever be successful if those who train do not model the behaviors desired of trainees. When instructors and supervisors espouse one kind of behavior but model something much less, the integrity gap is clear. This disconnection between word and deed produces cynicism in trainees, a grave outcome in young physicians. Almost 20 years ago, Donald Kanter and Philip Mervis, in their research on cynicism, found,

> Cynical tendencies are growing into a consensus world view with implications for society, commerce, and the workplace . . . the cynic . . . sees selfishness and fakery at the core of human nature. . . . Cynics mistrust . . . most authority figures, regard the average person as false-faced and uncaring, and conclude that you should basically look out for yourself. . . . Cynics at work deeply doubt the truth of what their managements tell them and believe that . . . given a chance, will take advantage of them.[5]

This sorry trend has only continued to deepen within medicine and society over the past 20 years.

That the ACGME now requires resident training that includes systems-based competencies promises that this trend may be reversed. We have the knowledge to make our healthcare systems patient-centered environments in which personnel can work together in personally and professionally rewarding ways, while, simultaneously, providing healthcare services at the highest levels of professionalism. But to achieve this possibility means our healthcare delivery operations must be totally re-engineered.

The new century has seen systems thinking move to center stage in healthcare. The Institute of Medicine (IOM) has made clear that healthcare systems must move from a self-identity as mechanical organizations to networks of complex adaptive systems (CAS).[6] This transformation requires that healthcare organizations must shift from outmoded mechanical behaviors to current systems processes. Mechanical systems are predictable and programmable; complex adaptive systems are not. Mechanical systems are composed of standardized and replicable parts; complex adaptive systems are not. Mechanical systems are characterized by ever-increasing levels of specification. Intense levels of specification will strangle and paralyze a CAS. A complex adaptive system is one that flourishes under conditions of fluid exchange of information, transparency of process and decision making, elimination of counterproductive routines, and a gentle regulatory yoke.

For residents to learn to demonstrate systems-based practice, the practices of the institutions in which they work and train must be systems-based. Because residents cannot be responsible for altering their institutional environments, it will be up to the resident education program chiefs to assure that the environment changes so that the needed educational experiences can be provided. In sum, to teach systems-based practice, a healthcare organization must become a systems-based organization. Personnel at all levels, especially those in leadership positions, must incorporate the characteristics of a CAS into their normal work patterns. That means everyone in the organization must become comfortable with change. Rules need to be simplified and their ubiquity pruned. Personnel at all systems levels need to take responsibility for actions in an environment of fewer rules and less behavioral specification. Everyone must learn to celebrate and reward novel thinking, creative problem solving, and the discussion and disagreement required to achieve these ends. Personnel must embrace the difference between order and control, developing confidence that order, where and when needed, will emerge so that outmoded attempts at centralized, bureaucratic control can be jettisoned.

These activities are ordinarily anathema to an organization. Organizational psychology teaches that organizations, like individuals, seek stability, will squeeze out disruptive influences, and will endeavor mightily to retain the status quo. Routines are comforting to individuals and institutions. Change-agents are upsetting. But if the IOM and progressive business pundits are correct, it is just these tendencies that must be overcome if we are to train residents to become physicians practicing at the highest levels of excellence and professionalism.

Impeding this process is that the qualities of a change-agent — that is, being a collaborative questioner and someone who disagrees agreeably — are not primarily the kinds of skill for which physicians, especially medical students and physicians in training, have been rewarded. Rather, knowledge-based skills have been emphasized. Mastering scientific and clinical knowledge, the core skills of the medically competent physician, are not the skills considered primary for mastery of systems-based practice. Skill in systems-based practice requires mastery of complex psychological responses and the ability to engage in refined yet vigorous ethical debate. Consider the following case.

North Central Hospital's ethics committee includes two third-year residents. During an ethics committee discussion of a particularly complicated case, one of the residents disagrees with the position taken by the new chief of medicine. The chief of medicine dismisses the resident's comments, with an edge in his voice, saying that the resident is too inexperienced to understand the ethics of the case. The chairperson of the ethics committee says nothing. Nobody else gives the resident's position fair consideration. For the rest of both residents' terms on the committee, they no longer offer their opinions. Having heard the story many times over, future residents do not offer comments when the chief of medi-

cine is present, nor do many residents call the ethics committee chairperson for consultations. The inability of the hospital's leaders to master their psychological defenses and fears will have been a toxic lesson for the residents.

Learning to be comfortable with, or at least to tolerate, the vigorous debate called for by the medico-moral decisions clinicians and healthcare administrators make daily is a psychological skill. Regular and searing self-examination, at the individual and systems level, requires control of one's emotional defenses. Learning to challenge each other across peer groups and up, down, and across the various chains of command in ways that produce learning and collegiality takes emotional maturity. The quality of decisions that physicians make in treatment recommendations, advocacy, and resource allocation policy is based on skill in managing their own psychological responses and refinement in ethical analysis. In sum, demonstration of the ACGME systems-based practice competency outcomes will spring less from knowledge and more from mastery of ego challenge and refinement of moral judgment and debate skills.

To achieve these outcomes, healthcare environments in which residents train and practice will need to be re-engineered into settings that habituate and reward the desired behavioral outcomes. To create such environments at both the sub- and suprasystems levels, we need to turn our healthcare organizations into healthcare delivery CAS. To achieve this transformation, the reward systems in the organization need to reinforce CAS-oriented, rather than mechanical, behavior.

It is this author's hypothesis that the only way to succeed in such organizational transformation is to create morally safe environments. Only morally safe environments will create the context necessary to convert our mechanical systems into the complex adaptive systems that promise greater safety, better care for patients, and the resident competencies called for by the ACGME.

CREATING A CAS-CONDUCIVE ENVIRONMENT: THE TRICKLE DOWN, UP, ACROSS, AND THROUGH MODEL

Although physicians and others within traditional, mechanical healthcare organizations have been rewarded for adhering to mechanical behavior patterns, it is important to remember that humans can change their behavior. One of the great beauties of being human is that we can change and adapt to new information. Emotional and psychological insights can result in shifts in behavioral patterns. Evolution in ethical thinking can result in changes, for the better, in how humans treat each other, other creatures, and the environment. In short, we are learning animals.

Optimal learning occurs when an environment is designed to allow those in it to maximize their own tendencies toward critical thinking and mastery of the principles and skills being taught. In healthcare, the appropriate principles and skills are generally consistent across systems, at all sub- and suprasystem levels. These common principles and skills are summarized in the executive summary of the final report of the President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry. This report states, "The purpose of the health care system must be to continually reduce the burden of illness, injury, and disability, and to improve health and functioning of the people of the United States."[7] The IOM has translated the President's Advisory Commission's broad mandate into the six specific aims that healthcare should be safe, effective, patient-centered, timely, efficient, and equitable. These aims, however, are not new. They are the same aims that have been at the heart of medicine since time immemorial.[8]

The difficulty is not in setting appropriate goals, but in how to achieve them. Given that our healthcare delivery systems are in crisis, and have been for years, mainstream thinking has just not yet identified the fundamental sources of the problems or the avenues to their solutions. But these answers already exist.

We must recognize that the problems and the solutions, at their core, are not merely technical, economic, regulatory, or informational, but ethical. Lester Thurow had this insight almost 20 years ago when he noted, "Health-care costs are being treated as if they were largely an economic problem, but they are not. To be solved, they will have to be treated as an ethical problem."[9] What Thurow understood, but what mainstream medicine has yet to appreciate, is that resolution of virtually every issue, question, or situation in medicine,

whether ostensibly technical, economic, legal, regulatory, or informational, requires a moral judgment. For example, although there is no debate about whether or not informed consent documents are required for surgical procedures, it is a moral judgment about how much information is the right amount to be included. We must appreciate that decisions about what we do and how we do it always include an ethical component.

It is now time, also, to act on the insight that to solve the crisis in medicine means we must focus on the ethical climates of our healthcare organizations. We must design systems to function in ways that increase the prospect that residents, other clinicians, staff, and administrators can perform at the highest levels of professionalism. Central to the problems, and the solutions, of today's healthcare delivery systems are the ethical climates of these systems. When we take seriously that creating morally safe healthcare environments is necessary, role models can teach residents how to successfully navigate through the technical, economic, legal, regulatory, informational, and other interconnecting and interdependent systems that affect their relationships with their patients. In short, what is required is to assure that the systems in which residents work and train are morally safe environments.

THE MORALLY SAFE ENVIRONMENT

A morally safe environment is one in which all members of the organization feel safe enough to speak up. A morally safe environment is one in which all are encouraged to challenge each other about medical, economic, policy, scientific, administrative, regulatory, and ethical issues, that is, about every aspect of the functioning of all the sub- and suprasystems within and outside the organization. Creative problem solving, willingness to admit error, openness to questioning, and change flourish in environments where these behaviors are rewarded and celebrated. Such behaviors wither away in environments that are overly controlled by hierarchy and regulatory minutia. When personal initiative and responsibility are positively reinforced, these behaviors multiply across the various organizational systems, and residents learn these skills through observation. Personal initiative and responsibility are suffocated by unnecessary lines of authority, lack of support, and heavy-handed interpretation of regulatory guidance. Under such conditions, residents become morally and intellectually paralyzed.

A morally safe environment is one in which all members of the organization feel safe enough to speak up. A training program that can teach young physicians systems-based practice requires an organization that is unthreatened by residents and others who speak up. To have residents who speak up requires that everyone in the organization feels safe. Speaking up means being comfortable asking a question or disagreeing. A morally safe environment is one in which anyone feels comfortable enough to ask anyone else a question.

Most residents have had the following experience. On rounds, the resident presents his/her patient, having already had a lengthy conversation with fellow residents about the patient's care. The attending orders a test or initiates a treatment that had already been considered and rejected by the residents, yet nobody speaks up. None of the involved residents challenge the attending or even asks why he or she is ordering the test or treatment. Nobody says anything because the moral courage needed is absent.

Direct interchange between residents and more senior physicians, however, is only one subsystem in which the morally safe environment needs to be created. Systems thinking requires that residents and others learn to appreciate how systems are intertwined. The systems of physician and nurse, or physician and social worker, are other examples of where individual behavior will have large spill-over effects on residents' learning. In a CAS, these subsystems will be open to rigorous discussion, hearty disagreement, and transparency in decision making. In so doing, patients' well-being, staff's satisfaction, and respectful clinical relationships can be maximized. Take the following scenario.

Mrs. G is an 85-year-old patient with metastatic colon cancer and multiple co-morbidities, who is minimally responsive. The patient's adult son is questioning the nurses and social worker whether or not his mother has gone through enough curative treatment attempts. Mrs. G's oncologist, however, cuts the son off and won't discuss the matter with the nurses or social worker. Instead, the physician paints a positive picture to the son about the length of potential life left and says that if they insert a feeding tube, Mrs. G can gain strength and live for many more months, if not longer. After several

failed attempts to discuss the matter with the physician, the social worker calls an ethics committee consultation. When the physician hears of the consult he is incensed, threatening to have the social worker fired.

This case is a prime example of everything that is wrong with traditional medical practice. Today, such behavior has a name: rankism, or rank-based abuse. A term recently coined by Robert Fuller, rankism "is the 'cancer' that underlies many of the seemingly disparate maladies that afflict the body politic. The outrage over self-serving corrupt executives is indignation over rankism. Sexual abuse by clergy is rankism. Elder abuse in life care facilities is rankism. Scientists taking credit for their assistants' research is rankism,"[10] and physicians riding roughshod over surrogates, nurses, and social workers is rankism. Although such behavior is obviously unacceptable, it happens all the time. Resident education program directors and supervisors have the obligation to prevent others from polluting the moral climate of the organization. The organization's response will have important implications for systems functioning and will dictate what residents learn.

If this physician admits large numbers of patients, the hospital may be disinclined to rein in his bad behavior. But not doing so will have serious repercussions. Nurses and social workers throughout the organization will be intimidated and angry, psychological states that predispose clinicians to burnout. The residents will learn that, if not acceptable, it is tolerable for at least some physicians, most notably high admitting physicians, to get away with bad behavior. This information is a recipe for cynicism.

If, on the other hand, the ethics committee consultation results in a formal rebuke of the physician and a clear explanation that such behavior will not be tolerated, everyone's inclination to speak up will have been strengthened. Residents will have had the appropriate behaviors modeled for them. Both the requirement to challenge their peers who act badly and proper interactions among physicians, staff, and family members will be clarified. And, consistent with the CAS characteristic of nonlinearity, it would not be surprising to find that the hospital that responds this way has fewer nursing vacancies than surrounding facilities.

CREATING A MORALLY SAFE ENVIRONMENT

Creating a morally safe environment is a long-term venture. Creating systems in which any relevantly involved individual feels comfortable enough to speak up takes care, time, and attention. Speaking up isn't easy. It takes moral courage. Fortunately, moral courage is a virtue we can learn.

From Aristotle to B.F. Skinner to more contemporary authors, it seems clear that moral courage, and its manifestation of comfort in speaking up, can be learned. What is clear, also, is that conditions need to be right to allow the requisite learning to take place. In Aristotelian terms, the process goes as follows: "of all the things that come to us by nature we first acquire the potentiality and later exhibit the activity (this is plain in the case of the senses . . .) but the virtues we get by first exercising them. . . . For the things we have to learn before we can do them, we learn by doing them, e.g. men become builders by building and lyre players by playing the lyre; so too we become just by doing just acts, temperate by doing temperate acts, brave by doing brave acts."[11] The implications for systems-based practice, if true, are substantial. Physicians who threaten social workers produce residents who habituate into senior attendings who threaten social workers. Physicians who respect the views of social workers and see ethics consultations as opportunities for expanded moral analysis produce residents who do as well. This Aristotelian notion that doing the good produces skill in figuring out what the good is and doing it again might seem like philosophical wishful thinking, were it not for modern scientific validation.

Classic Skinnerian theory teaches that individuals are inclined to repeat behaviors for which they have been rewarded. The mountains of data that support this theory show us that if persons are rewarded for doing the good, they are, as Aristotle predicted, inclined toward doing so again and again. Skinner extends this insight into the realm of group influences on individual behavior: "In a given instance, good behavior on the part of A may be positively reinforced by B because it generates an emotional disposition on the part of B to 'do good' to A . . . it seems clear, simply as a matter of observation, that the behavior of favoring another

is modified by appropriate emotional circumstances and that good behavior on the part of another is a case in point."[12]

In turn, Skinner's hypotheses about environmental influences on individual behavior have been supported by more recent research. Synthesizing a body of research studying cognitive bias in human interaction, Robert H. Frank summarizes, "Once the initial valence has been assigned, a biased cognitive filter becomes activated. You still evaluate further aspects of your experience with a new acquaintance, but with a slant. If the initial evaluation was positive, you are much more likely to treat ambiguous signals in a positive light. But if your initial impression was negative, you are more likely to assign negative interpretations to those same signals."[13] In healthcare, in which the mission is other-oriented, it is critically important that the environmental stimuli produce behaviors that reinforce other-oriented behavior, be it toward patients, surrogates, colleagues, or others.

Let us consider the case in which one of the "others" in a healthcare organization felt safe enough to speak up, to appreciate how important this issue is for systems-based practice.

At a large research center, there was a long-term study of young adult patient-subjects with a chronic pain syndrome. Many of these subjects had been on the study since their early teens. Study procedures required that subjects come into the research facility once a year for a three-week period. Over the years of study participation, the subjects had developed very close relationships with the principle investigator (PI), who, since the beginning of the study many years before, had risen from fellow through the ranks to department chairperson. The PI was a highly private person by temperament and not easily approachable by junior members of the research team.

During the stay of a particular subject, one of the housekeeping staff noticed that the subject was out of his room more often than the other subjects. Paying closer attention, this housekeeper watched the subject enter the elevators with undue frequency. Finally, the housekeeper got on the elevator when the subject and a visitor got on the elevator together. During the elevator ride, the housekeeper observed the friend injecting something into the subject's venous access.

When the housekeeper reported it to one of the research fellows on the protocol, she was told not to get involved, that the fellow would handle it. But the situation continued. Mustering what must have been significant moral courage, she reported the incident to one of the nurses, who then brought the problem to the appropriate staff. It was determined that the subject's friend was injecting illicit drugs into the subject, and a sitter was attached to the subject for the rest of his stay.

In some facilities, a housekeeper might be considered too insignificant to a patient or subject's direct care to have any important information to provide. When such an individual has information that challenges the *status quo*, a traditionally hierarchical, mechanical organization will be prone to dismiss the housekeeper's report. In a CAS, however, one understands that no system is completely detached from any other, and rankism is flattened, when appropriate, to surfacing problems. In a morally safe environment, it is appreciated that nobody in the organization has any greater moral authority than anyone else for illuminating and resolving a problem. Fortunately for subjects' safety, this facility had created an environment in which all individuals felt responsible for the well-being of the subjects.

The following case demonstrates the opposite, that is, how inappropriate application of power withers moral courage.

In a large university medical center, a problem had been identified in the review and oversight of a prominent researcher's work. Briefly, it was alleged that a PI, who was also a department chairperson, had engaged in research on tissue samples, appropriately obtained for one purpose, without approval by the institutional review board (IRB), for another purpose. In a special meeting of the IRB, a junior investigator challenged the PI about his actions. When the meeting ended, the PI stormed directly into the office of the IRB member's department chairperson, demanding that the junior investigator be removed from the IRB.

The department chairperson had several projects in which his own work, and that of his laboratory, was dependent on the collaboration and good will of the PI. After the PI stormed back out of the office, the department chairperson went to the junior investigator and suggested that perhaps she might have served on

the IRB long enough and that she might want to step off the committee. The department chairperson didn't order the junior investigator to step off, nor did he make the suggestion in an angry tone of voice. Neither was necessary to produce a chilling effect on everyone in the department.

BUILDING THE CRITICAL MASS TO SUSTAIN A MORALLY SAFE ENVIRONMENT

As easy as it is to have one or two persons pollute the moral climate, the reverse seems not to apply. It is not enough to have one or even a few individuals within the organization known as wise counselors. The change needed to move an organization from a mechanical system to a CAS, to produce residents skilled at systems-based practice, to create the necessary morally safe environments, requires a critical mass of ethically sensitive persons throughout the organization. As Fuller notes, "Typically, psychological change precedes a political assault on the status quo. Not until a great many individuals conclude that something is wrong and that an alternative exists will they organize politically and try to bring down an existing edifice."[14] A few "high visibility" good souls will never have the influence, energy, authority, and emotional strength needed to change organizational culture.

Rather, what is needed is a critical mass of ethics-focused individuals within and across the multiple systems of the organization. Starting from the top down, the organization needs persons who are identifiable as ethically thoughtful and interested, throughout all sectors. Such persons initiate discussion about the ethical implications of issues, as they arise, throughout daily work. They encourage and model thoughtful ethical discussion. They are comfortable with, and engage in, disagreements agreeably. Such individuals act as magnets for all of the rest of the persons within their normal daily venues who are also interested in ethical issues, but may not have quite as much psychological strength. These others may not be the ones to expose the ethical aspects of a complex issue, initiate discussions, or openly start a disagreement, but they will join the process if given encouragement by those they know and trust. This is how moral courage is learned and how the necessary critical mass of ethics-focused persons develops. Once there are enough of these persons, when issues have to be handled across multiple other systems, there will be enough persons within all of the systems that the characteristics of a CAS can flourish.

One source for producing this critical mass is through a vibrant and highly functioning ethics committee. Consider a slightly altered version of the first case presented in this article.

North Central Hospital's ethics committee includes two third-year residents. During an ethics committee discussion of a particularly complicated case, one of the residents disagrees with the position taken by the new chief of medicine. The chief of medicine, in a neutral tone of voice, says he really thinks his position is the ethically optimal solution and gives his reasons. The ethics committee chairperson, agreeing that the chief's position is sound, nonetheless takes over the argumentation process from the resident. He then shapes the resident's position into a quite elegant and ethically acceptable option. After that, the chair invites the rest of the committee to think through the two positions as potential boundaries of ethically acceptable possibilities, challenging the other committee members to offer up their own positions, either novel to the two on the table, or elaborations of either one. Lively and substantive ethical analysis ensues. The committee ultimately comes to a consensus that favors the essence of the chief's position, but includes nuances that only surfaced as a result of the additional considerations raised by the resident and others on the committee.

For the rest of both residents' terms on the committee, they participate thoughtfully in committee discussions and promote the committee to the junior residents who will take their places. The chairperson of the ethics committee begins to notice an increase in "curb-sides" and formal consultations coming from the residents across various units in the hospital.

Word spreads quickly among residents that neither one was "shut down" by the chief of medicine in a meeting, or that, in a disagreement with the chief of medicine, the ethics committee chairperson brought an evenhandedness to the situation that made everyone more comfortable.

The quality of nonlinearity is, as the IOM noted, "Small changes can have large effects; a large program in an organization might have little actual impact, yet a rumor could touch off a union organizing effort."[15]

How such a situation is handled will have a ripple effect throughout the organization that can be expected to increase or decrease residents' psychological ability to speak up.

But even having a superior ethics committee is not going to be enough. What is needed is a critical mass of individuals, strategically located across multiple systems, who are committed to focusing on ethics. Further, it is important that these individuals are at the highest levels of leadership across all systems of the organization. As Christopher Meyers states, "Organizational culture is created and maintained by two processes: the top-down establishment of institutional values by owners and managers and the carrying out of those values by in-the-trenches employees."[16] Ethics is the art of persuasion. Moral judgments are only forceful if those who offer them are viewed as wise, respected individuals. Because ethical recommendations lack the force of law, strong intellectual, political, and psychological levers are required to move heavy behavioral objects. That is, when moral judgment faces long-standing practices, it takes great moral force to produce a shift. This moral force is generated by a growing, and highly visible, group of individuals within an organization who actively participate within their own systems-based practices to advance the creation and maintenance of a morally safe environment. Everyone from the top down encourages and rewards others for speaking up, and takes a firm hand in retraining, or eliminating, those who do not.

REDUCING THE WEIGHT OF REGULATION

Efforts to create and maintain an ethical climate will also require reducing the weight of regulatory and legal ways of thinking. Charity Scott notes, "Law pervades medicine because ethics pervades medicine, and in America, we use the law to resolve ethical dilemmas in health care."[17] But this process stifles ability to engage in ethically sensitive systems behavior and is a threat to the well-being of patients. Psychologically, excessive reliance on regulation and compliance may merely be place markers for fear of litigation. Excessive fear of litigation can obliterate individual common sense, self-reliance, creative problem solving, and ethical behavior, a point already long appreciated.[18] When excessive fear of litigation produces overly legalistic regulatory interpretations and conflates ethics with compliance, the ability of a CAS to overcome mechanical behavior is doomed.

Regulations and compliance are necessary and important. It is, however, the way in which an organization interprets regulations and implements compliance programs that will set the tone for individual and systems behaviors. There can be little that is more mechanical than excessively legalistic thinking. Where it exists, it permeates not merely those who have direct responsibility for regulatory oversight and compliance, but everyone in the organization. Worst of all, such thinking leaves physicians intellectually paralyzed and ethically confused. Modeling such behavior for residents may be lethal to their ability to mature into senior physicians who exemplify the qualities identified by the IOM as critical to improved patient care and safety.[19] This does not suggest that we should deregulate our healthcare organizations or weaken our insistence on legal compliance. What it means is that we must begin to shape our interpretations of legal and regulatory matters within a framework that focuses on their ethical basis.

To achieve this revolution in legal thinking and regulatory implementation, an ethical approach must be taken in deciding what is necessary. An ethical approach to regulatory compliance and legal interpretation calls on all who must comply with laws and regulations — that is, everyone — to think through how they comply. Asking what the ethically optimal way to interpret and comply with the law or regulation must be the framework for analysis. In a healthcare organization, that means asking such questions as, "What would be in the best interest of this patient?" "What is the organization's obligation to the patient, surrogate, nurse, social worker, et cetera?" "What does justice, fairness, and/or common decency suggest is owed to the patient, surrogate, nurse, social worker, et cetera?" Once consensus around these answers is determined, we can think through how the answers might be consistent or inconsistent with legal and regulatory interpretations.

At their finest, laws and regulations set minimal behavioral standards that are sufficiently elastic to allow for maturing interpretation as the moral norms on which they are based evolve. Such excellence in

regulatory guidance is exemplified by the regulations governing the ethical conduct of publicly funded human subjects research in the United States.[20] These regulations are brief — barely 20 pages — and have been revised infrequently and minimally since they were promulgated two decades ago. During this period, ethical debate in the professional and lay literature about the ethically appropriate conduct of human subjects research has mushroomed, but these elegantly written regulations continue to be relevant. The regulations have not changed; interpretation of how they should be implemented has changed.

Contrast this example of regulatory excellence with the following.

A patient is brought into an intensive care unit (ICU) in the middle of the night in need of surgery. Upon admission he is still conscious and capacitated, and makes it clear to the medical team that he is a practicing Jehovah's Witness and does not want any blood. Shortly thereafter, he becomes unresponsive. The family members with him are not Jehovah's Witnesses. Once the patient loses decisional capacity and they are now being asked to provide procedural consents, they tell the medical team that if he needs blood they should go ahead and give it to him.

The next morning on rounds these events are discussed. The bioethicist asked the resident why nobody from the patient's Jehovah's Witness community was called to come and advocate on behalf of the patient. The resident responded that he hadn't thought of it, but wouldn't have done so anyway because it would have been a violation of HIPAA (the Health Insurance Portability and Accountability Act of 1996).[21]

A response of, "Well, let's think this through some more — HIPAA violation or eternal damnation?" resulted in laughter among the team and a look of dismayed shock and unhappy insight on the resident's part that he had made the wrong decision.

A strict HIPAA constructionist might consider contacting a member of the patient's faith community a violation, especially when the patient had caring, if perhaps ethically misguided, family members acting on his behalf. But a loose constructionist might interpret contacting the patient's spiritual leader to be acceptable under the HIPAA allowance for sharing information necessary for patient care. Further confusing the resident, however, was the ubiquitous and misguided legal interpretation about who was the appropriate decision maker. Because traditional medical practice and most surrogacy laws put family members first in line, there was no ethical analysis of whether the family members, in having given permission for a blood transfusion that was refused by the patient, were acting in an ethically, or even legally, appropriate way on the patient's behalf. The resident's fear of litigation by an angry family member inhibited his moral judgment. That nobody else suggested calling a member of the patient's faith community indicates a lack of ethical imagination.

This is a common problem in healthcare facilities in which risk management has the overly anxious and confused view that upholding patients' autonomy and obtaining informed consent means that whatever the patient or family member wants, goes. Such confusion is less likely in an institution in which risk management's contribution to creating a morally safe environment is supportive. Ethically sound risk managers make explicit that physicians are encouraged to work through the various systems of consensus building and consultation, and once all relevantly involved parties have agreed on the best course of action for the patient, risk management will support their decision, regardless of legal outcome. Legal doctrines, case law, and regulations should provide guidance and wisdom. Becoming slavishly tied to over-interpretation of laws and regulations robs residents of the ability to learn to think ethically. As Scott states,

> Law came to the patients' bedside . . . because there was an emerging societal sense that wrong was being done to the patients there. This invitation to get the law involved in ethical conflicts is nothing new. Whenever there is a social sense of wrong, or injustice, or an abuse of power by some people or some institutions . . . those who feel abused often turn to the law for protection . . . a felt need for patient protection from a power imbalance in the doctor-patient relationship has resulted in consent forms, living wills, and other legal documents and rules. That these legal mechanisms frequently provide only minimal protections in practice — that they often fail to achieve the ethical balance that was their goal — does not alter the point that their purpose was to promote an ethical vision of the doctor-patient

> relationship. . . . And herein lies the pitfall which the very power of the law creates for ethical reflection. . . . Law only sets a floor for ethical behavior. . . . Faced with the power of law, however, we tend to get stuck in our ethical reflections at the ground floor. As is so often true when law packs ethics with a punch, people tend to over-focus on avoiding the punch, and not on the ethical underpinnings of the law.[22]

For residents to reach the highest levels of professionalism, they must have models who interpret laws and regulations to maximize patient care, not in ways that some might think will avoid the punch of litigations. Overly legalistic interpretation does not prevent litigation, only the ethical practice of medicine protects against litigation.[23] This is a lesson residents must learn and that can only be taught in healthcare organizations that have adopted an ethical approach to legal and regulatory interpretation.

CONCLUSIONS

Why is the ACGME competency in systems-based practice so important? It originates with the ancient principles that define the ethical conduct of medicine — act in the patient's best interest and protect patients from harm. The ascendancy of the autonomy movement was a way of protecting patients from the tyranny of medical paternalism. Having young physicians learn how to think not only on an individual level, but also at a systems level, is a way to protect patients from the tyranny of systems. Take, for example, advance directives. Advance directives can be thought of as a systems issue. At the suprasystems level, there is a federal law requiring hospitals and other healthcare organizations to find out if patients have advance directives, and, if not, whether patients want information about them. At the subsystems level, healthcare organizations spend inordinate amounts of time figuring out how to implement the federal law, how to demonstrate to the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) that the law is implemented, determining which staff will have responsibility for which parts of the process, and designing advance directive information to be provided to patients. All this effort and the following still happens.

Mrs. Jones is going into surgery to repair a broken hip. Her only relative, her granddaughter, has been with her since she arrived at the hospital two days ago. Although Mrs. Jones lives alone, her granddaughter is her only relative. They have always been so close that Mrs. Jones has a durable power of attorney for person and property, including healthcare decisions, naming the granddaughter as her agent. In all the commotion, the granddaughter has only now produced the documentation. Mrs. Jones is sedated and prepped for surgery. The nurse looks over the document before putting it on the chart and sees that it says, ". . . only in the state of Michigan." The patient is in Illinois.

This jurisdictional discrepancy halts the patient's surgery. The nurse calls the resident, who is unwilling to allow the patient to proceed to surgery because now the patient is thought not to have the "right" advance directive. The resident calls the surgeon, who won't operate, because s/he doesn't know if the paperwork is legal in the state of Illinois. The surgeon calls the hospital's risk management department, who then calls hospital counsel. Hospital counsel takes several hours to decide that an advance directive executed in Michigan can be used in Illinois. By this time, the patient's surgery has to be put off until the next day, causing distress to the patient and granddaughter and wasting operating room resources.

If an ethics approach had been taken, the scenario might have gone more like the following. The nurse realizes that the documentation is legally authorized only in Michigan and reports the matter to the resident. The resident, who is comfortable questioning what systems approach might be best implemented to handle this question, decides to check with his/her peer, who sits on the hospital's ethics committee. That resident explains that all that is required to be an ethically and legally valid surrogate is, in the absence of documented agency, that the person acting as surrogate appears to be acting in the best interest of the patient. It doesn't matter whether or not Illinois considers the Michigan document a legal assignment of agency. If the granddaughter is the ethically appropriate surrogate, this meets every ethical and legal principle upon which

the suprasystem of advance directives sits. The resident responsible for the patient's care then calls the surgeon, explains the situation, and makes the recommendation that the granddaughter is the appropriate surrogate. The patient then moves on to her surgery as planned.

Wasting resources, provoking anxiety and frustration in patients and surrogates, and putting patients at risk from process errors are harmful outcomes that can be avoided through skillful systems-based practice. Avoiding such outcomes, however, does not mean that such problems can ever be eradicated completely. The systems in which residents work and train are so complex that errors and problems will always occur. The hope is not for perfection, but rather for the creation of environments that present the greatest opportunities for medical excellence. The promise that such environments will become the norm rather than the exception is on the horizon. Organizations such as the Institute for Health Care Improvement (*www.ihi.org*) have been created to assist in this process. For resident training, environments are required that reward the psychological responses and ethical discussions necessary for superior patient care. Now it is up to those responsible for resident training programs to create the morally safe environments necessary to assure that the residents they train can demonstrate the ACGME-required performance outcomes in systems-based practice.

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