SPECIAL ARTICLE

Professionalism and the Shift Mentality

How to Reconcile Patient Ownership With Limited Work Hours

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The Halstedian tradition imbued the art of surgery with a deeply rooted sense of responsibility and a powerful work ethic. As apprentice surgeons, junior residents gained reputations for professionalism when they immersed themselves in patient care so deeply and for such long periods that they "owned" their patients. No detail of patient care was so trivial that it could escape the effective intern.

The introduction of strict limits on resident work hours brought many positive changes to training programs nationwide. An unintended consequence of this policy is the potential for the loss of "patient ownership" by trainees. Patient ownership is the philosophy that one knows everything about one's patients and does everything for them. It is a central tenet of surgical professionalism dating back decades and is fundamental when facing critical patient care decisions. The shortened duty periods and subsequent frequent transfer of responsibility to others pose a challenge to the trainee's sense of professionalism and the continuity of patient care. This challenge must be addressed head-on.

Residents must learn a New Professionalism that stems from sharing responsibility for the care of their patients. They must be given a new understanding of their responsibilities, new methods for organizing and sharing patient information, and new skills for directing team-based care as they work toward competency in systems-based practice. Residents, particularly junior residents, may lack many of these skills. The craft of conveying pertinent patient data to permit team-based care must be learned, just as all other forms of clinical communication are learned. And the unwillingness to relinquish patient ownership—the deep-seated desire to say, "Nothing to do, I'll grab a nap and be back in a couple of hours"—must be unlearned.

Surgical training in America is facing fundamental changes. Limited work hours for trainees, the ever-increasing complexity of medical care, and the participation of many more individuals in the care of a patient threaten to undermine the common view of professionalism that has characterized surgery and surgeons. The traditional sense of professionalism called for strict and unlimited devotion of a clinician's time to the care of every patient. Surgery and other disciplines have moved to a systems-based approach that involves health care delivery by teams of providers rather than by independent clinicians. This poses a challenge, particularly in the training environment where faculty and residents are bound by different rules. The system must respond by redesigning surgical training to teach the best practice of this team-based care while ensuring that the essence of professionalism is enhanced.

We believe that a new approach to professionalism must be taught, one that includes the following elements: (1) a clear understanding on the part of both teachers and learners of what trainees are responsible for in this new era; (2) a new way for residents to approach their responsibility to the total delivery of care to a patient ("patient ownership"); (3) educational programs and patient care systems

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that enhance communication and make team-based care easier and more logical to practice than individual provider–based care; and (4) surgical educators who can be inspiring role models with all of these concepts.

This article discusses the traditional sense of professionalism among surgical trainees and the conventional characteristics of patient ownership. It describes a conflict among trainees today who want to demonstrate traditional professionalism but are thwarted by new work-hour limits. It then develops the concept of engendering among trainees a New Professionalism—a concept based on emerging educational programs, core competencies, and team-based patient care systems. This concept can help residents reconcile professionalism with limited work hours while also delivering the best surgical care and education.

PATIENT OWNERSHIP

The method of teaching surgery to trainees advanced by Dr William S. Halsted in his 1904 address at Yale University[1] has been the foundation of surgical training for a century in the United States. It demands total dedication to learning the art of surgery and to caring for one's patients. These principles were the basic fiber from which recent surgical training was woven.[2] Trainees performed every aspect of care for their patients: they wrote orders, scheduled tests, called consultants, counseled patients and family members, formulated diagnostic and therapeutic plans, and carried out those plans under the scrutiny and direction of their supervisors.[3] Residents often lived in the hospital and personally performed the majority of patient care tasks, including drawing blood and transporting patients.[4] Those days are now sometimes called "the days of the giants," when residents were always on duty and available for their patients.[5,6] Residents assumed the role of expert constant observers, who knew all the recent events, recognized changes in a patient's condition, and could judge the impact of therapeutic interventions.[7] In surgery as in many specialties, this role often demanded 100 or more hours a week devoted to the performance of patient care tasks.[8] The unlimited hours permitted residents 2 important opportunities: the time to track down every detail about their patients and the opportunity to participate in almost every diagnostic or therapeutic task done with their patients. In this way, trainees displayed what is often referred to as patient ownership. They knew everything about their patients and did everything for their patients. This was the way in which residents built their reputations: no detail of patient care was so trivial that it could escape the effective intern. That dedication, together with the rite of passage through long working hours, was an effective way—perhaps the most important of a very few ways—for trainees to demonstrate a strong work ethic and a sense of *professionalism*.[9]

RESIDENT PROFESSIONALISM

Surgical trainees working in a system of graded responsibility have limited opportunities to display the kind of professionalism that recent consensus literature describes, such as principles of social justice, commitments to improving access to care, managing conflicts of interest, and a just distribution of finite resources.[10,11] To a fairly limited degree, residents are able to display other aspects of professionalism, like honesty, integrity, competence, cultural sensitivity, and timely responsiveness.[12] But for the majority of junior surgical trainees, professionalism chiefly means a feeling of obligation and a willingness to care for every need of each of their patients, no matter when the need arises or from whom.[13] This feeling includes the instinct that patients *belong*, in some way, to trainees who are responsible for them.[14] The impact of attending expectations, resident beliefs, and patient needs socializes residents to understand that they must display professionalism by, among other things, showing a high degree of patient ownership. Residents traditionally understood that they must know everything about their patients and do everything for their patients, that they must finish what they started for their patients. Residents see this in their mentors, who often resist the external directive to tell a young, bright trainee surgeon that it is time to leave.[13] This reinforces deeply rooted feelings among trainees of personal sacrifice and beneficence that constitute the very reason many of them joined medicine, and those feelings are the source of a vexing conflict now faced by residents.[14]

THE CONFLICTED RESIDENT

Left to their own devices, most residents today would continue to show the kind of concern for their patients that their supervisors hold sacred[6] and that likely drew the trainees to medicine to begin with; they would be unwilling to leave the hospital until everything was prepared for a brief and uneventful night of cross-coverage by a colleague.[14] These are the values that most residents continue to bring to medicine. In 1993, 4 years after New York enacted duty-hour regulations, interns continued to feel ownership for patients to the extent that they were uncomfortable leaving the hospital on time.[14] As duty-hour violations continued there, calls for the revocation of physician licenses came.[15] The interns were commanded to leave on time, while being made to feel that their new lives of enforced shift work would ensure failure to build a sense of responsibility that is one of the basic demands of the medical profession.[16,17] Many professionals echoed concerns about making the clock a higher priority than patient care and education.[9,14,18] "The ethic of commitment to the patient may be traded for a 'shift mentality.'"[19(p1)] Worse yet, residents all too well understood that the increased turnover of patient care responsibility risked the sacred patient-doctor relationship.[19] "By interfering with optimal training as we have defined it, these regulations place patients at as great a risk from lack of professional commitment as any perceived risk from sleepy interns."[16(p138)] Faced with no instructions on how to reconcile the desire to demonstrate patient ownership with the desire to comply with the new rules, and shown no role models, residents are struggling. Some thwart the rules and act out their values: they sign out their duties but remain in the hospital to talk with families.[20] Others resign themselves to the new order and risk perpetuating the stereotype of the post-

modern resident: a wide-awake technician, lacking in professional ethics, here to replace kind-hearted, sleep-deprived healers.[3]

BARRIERS TO RESOLUTION

Trainees today know they must comply with the duty-hour restrictions. Many also believe that reasonable limits on working hours may even help them become more humane physicians by improving their morale and their mood in patient interactions.[4,21] The critical obstacle that most residents find difficult to surmount is how to reconcile the required schedule with a way to fulfill their sense of obligation. With no role models or advice from senior surgeons, the answer to this problem remains elusive. An excellent discussion in 1993 of the attitudes of 21 New York interns categorized 4 areas of conflict the trainees experienced as a consequence of limited work hours[14]: (1) concern for their patients and unwillingness to leave them; (2) unclear parameters to guide the decision about when to stop working; (3) deterrents against acknowledging and acting on their knowledge or skill limitations; and (4) conflict between delegating responsibility and retaining control over patient care. Furthermore, while work-hour restrictions are a major topic today, they are but one of several factors affecting surgical training.[22] A variety of factors today prevent residents from living up to their values of being able to know everything about their patients and do everything for their patients. The shift of care delivery to ambulatory centers means that the patients under a resident's care today are more complicated and sicker than before. In addition, an ever-increasing burden of documentation and order justification has increased the volume of noneducational scut work, which decreases resident time with patients.[1,5,23] As a result, task-saturated covering residents often see their load of patients as a series of items on a to-do list.[5] A greater array of diagnostic and therapeutic interventions undertaken by consulting specialists further restricts residents from the ability to do everything for their patients and adds to the variety of places residents have to search for information about their patients—particularly when current systems are not designed to support close interaction between multiple specialty teams with the patient at the center and a clear leader who organizes the effort and flow of information. It is in these situations that residents stop being doctors and instead become the glue that holds together poorly designed methods of managing health care information and the clinical providers who need that information.[7]

THE NEW PROFESSIONALISM

We feel that this situation provides a unique opportunity to design an approach that addresses this apparent conflict imposed on residents by the demands of limited work hours and the expectation of constant dedication to their patients. This dichotomy is also expressed in the apparently opposing forces of 2 of the new Accreditation Council for Graduate Medical Education (ACGME) competencies. Systems-based practice emphasizes care delivery by a system or a team, whereas the traditional view of professionalism emphasizes *personal* attention to every detail of patient care regardless of time. To reconcile this conflict, we have set down certain principles that will be the basis for what we term a New Professionalism for residents.

TELL TRAINEES WHAT TO DO

Clear expectations are needed that delineate what residents are expected to be able *to know* about their own patients and those they cross-cover and how much they are expected to be able *to do* for those patients. Unless these are defined, and we believe that in most circumstances and places they are not, residents fall back on an increasingly frequent refrain: "that is not my patient."[5] Cross-covering residents are often given several lists full of patients and no expressed expectation regarding what is supposed to be known about each patient; they could never be able to know all of them well. As a consequence, residents don't consider these "their patients."[3] The opportunity to include these care providers and enlarge a team—centered on the patient—is missed. Another common observation is the variation among residents with respect to how much unfinished work is left for others and who remains beyond their designated time when a patient's condition is changing.[14,21] The residents in the New York survey singled this out as a frequent cause of anxiety: How much work am I creating for my fellow residents? Is it fair?[14] A clear understanding of patient responsibility should be made. Accountability can then be rightfully required and evaluated.[5] If residents can no longer know everything, how much must they know? If residents can no longer do everything, how much must they do? In the **Table**, we include examples of the way expectations could be changed to permit residents a clear understanding of how to display professionalism while practicing systems-based care and meeting work-hour limits.

GIVE TRAINEES THE TOOLS TO DO IT

Today's teams of residents must function with high reliability in an error-prone field where information is often lacking and the best course of action is unclear. Despite this, they receive no training in team resource management or leadership skills, and frequently roles are poorly described.[24] When time was more available, the junior trainees, not knowing what specific information or tasks they would be responsible for, chose to become responsible for all information and all tasks. While this was an ineffective use of resources, it managed to satisfy all the needs of the patients. That unlimited time is not permitted anymore. Residents need new skills and new tools to help them effectively deploy resources, delegate tasks, and acquire and organize the information needed to manage uncertainty.

Resource Management

Airline safety improvements in the 1970s that led to the concept of Crew Resource Management revealed key characteristics that are needed when managing rapidly chang-

Table. Example Expectations That Could Be Established for Residents Under the New Professionalism

Situation	The Old Professionalism	The New Professionalism
Just as the resident is preparing to leave, his or her patient urgently needs a chest tube.	Abort departure. Perform procedure; remain in house until after personally reviewing the follow-up chest x-ray.	Delay departure. Perform procedure, describe it well to the covering resident and supervising resident, and confirm mutual understanding that the colleague will review the film. Initiate redundant lines of communication by discussing plan for x-ray with nurse and patient or patient's family.
Patient conditions change and the family wants a conference at the end of a resident's shift.	Abort departure. Remain at the bedside with the family until all of their concerns are addressed.	Delay departure. Confer with teammates and select the most informed member, likely a senior resident, to join in the family conference. Answer questions as a team and inform the family that the resident must depart. The other team member remains with the family for additional discussion.
Consultant recommendations appear late in the day at the end of a resident's shift and include information and procedures for his or her patient.	Abort departure. Discuss new recommendations with the team; personally perform the recommended procedures and remain with the patient until everything is finished.	Delay departure. Briefly review the new recommendations with the team and clearly designate the team members who will address each one, including procedures. Establish lines of communication to ensure that the results all return to the team and are ready to be quickly understood by the resident when he or she returns the next day.

ing aviation situations involving unclear outcomes, insufficient information, and a number of complex systems and people.[25] These characteristics include knowledge of how to delegate certain tasks, appropriate distribution of work, specific assignment of responsibilities, setting priorities, using available data, communicating clearly the intent and the plans, and monitoring progress.[26] Training professionals in the management of information and people during high-stress work is credited with a substantial increase in efficiency and safety in aviation, and there are many similarities among the fields of anesthesia, surgery, and aviation.[27] Yet, graduate medical trainees receive only minimal education in leadership and team management skills. Leadership training and a formal approach to resource management should be part of residency.[24] In recent studies of shortened resident work hours, it was noted that among groups with poor team performance, the night-call interns appeared to know substantially less about the patients on service.[28] In the past, such lapses were prevented because resident teams left one of their own residents in house to cover their patients.[15] Now, less time spent with patients breaks the narrative flow of patient illness and scatters this vital information among team members.[5] Residents should be taught how to use patient care resources available to them, appropriately distribute the workload among team members, efficiently use patient information systems, communicate appropriately, and effectively construct contingency plans. These management techniques are needed not only for operating room safety and efficiency but for the effective management of patients on the wards and during daily sign out to cross-covering teams.

Communication Skills

Without question, the reduced work-hour regulations increase the number of residents who care for a given patient on any particular day and subsequently increase the demand for clear, complete, and effective transfer of information.[29] Some attending surgeons do this exceedingly well today. They learned these skills through years of training and can now quickly summarize and communicate pertinent information to a covering colleague. Yet, despite the extensive time and effort devoted to train medical students and residents how to communicate a history and physical examination, how to organize a presentation for rounds, and how to structure a discharge summary or daily patient progress note, almost no effort has been devoted to teaching a formal organization of information at the transfer of care, or sign out. In fact, this remains the most poorly understood exchange of information in all of medicine.[29] Understanding it, improving it, and teaching the best methods for conducting it may be the key to solving much of the continuity-of-care worries that plague training programs today. For example, formal sign-out rounds are recommended by some as a means to improve safety.[28] However it is done, transmitting important sign-out information to support patient care is a critical skill that must be taught, and residents should be evaluated on that skill, using face-to-face communication of patient information in the presence of senior team members as the gold standard.[5]

Better Ways to Organize Data

We know that implementing well-designed systems to organize, standardize, and exchange patient information among clinicians can reduce the excess risk that accompanies cross-coverage.[30] Techniques such as standardized sign-out templates and scheduled time for care transfer have been employed successfully by others.[28,31] In the era of limited work hours, it is more important than ever that the essential information about every patient is organized in a way that is designed for clinicians, easily accessible, and effectively transferable among

care team members.[3] Computerized systems designed to support high-quality sign out must be implemented to help residents manage clinical information and communicate their own brief descriptions of patient progress.[24] We have developed such a system that was quickly embraced by residents at our institution as a powerful tool for organizing team-based lists of patients; for automatically gathering patient data from a variety of electronic systems and presenting it in a useful format; and for providing residents a way to communicate notes, to-do lists, and special concerns they might not otherwise document elsewhere.[32] Others have shown that such systems can actually reduce the risk of preventable errors.[33]

Educational Benefits of Sign-Out Tools

Teaching structured sign-out methods and introducing computerized systems designed to support sign out can bring educational advantages as well as patient care improvement. When residents perform well-conducted sign out, they display the following skills: organized, thorough *patient care*; applied *medical knowledge*; effective *interpersonal and communication skills*; and, perhaps most rewarding for the resident, *professionalism*. By performing conscientious and detailed sign out, ensuring that all patient issues are addressed, that all tasks are assigned to colleagues who understand them and have the skills to complete them, and by establishing redundant lines of communication, residents demonstrate their New Professionalism. In the course of that activity, residents also demonstrate to their teachers how well they are progressing toward mastering 4 different ACGME competencies.[34]

SHOW THEM HOW

The changing nature of surgical training presents an opportunity for today's attendings to teach today's medicine: how large volumes of poorly organized patient information can be effectively managed to guide clinical thinking and decision making; how leaders effectively manage their team to maximize information sharing and continuously improve patient care quality; how one capitalizes on brief encounters with patients to earn their trust; and how time can be effectively organized among patient care, administration, continuing education, and personal development.[6] We must beware of sending mixed signals to trainees. Many programs have adopted the new duty-hour limitations, yet violations are common. As Dr Leach[7] commented, "Any gap between the profession's stated values and its behaviors weakens the profession."[7(p1156)] In the case of residents trying to understand their roles and obligations, the profession must stop sending mixed messages to residents, who build their values system based on how their leaders behave. Drs Chao and Wallack[35] pointed out, "How can we expect such behavior of them if we do not set the example?"[35(p13)] Today's attendings can lead their residents toward a New Professionalism that is a commitment to work collaboratively to maximize the effectiveness of patient care in an environment of efficiency, safety, and compassion. As the concept of systems-based practice advances, these same attendings can model effective communication that is necessary for team-based medicine. Faculty mentors should make time to discuss professionalism one-on-one with their residents, which has been shown to be effective in initiating reflection on such values among trainees.[16,36] In this way, attendings can guide the lasting values of future surgeons. As Dr Ofri[6] wrote, "If we sense 'shift' mentality setting in, we can be glad we are in a position to model the professionalism we deem vital."[6(p1826)]

WHAT ABOUT EDUCATION?

Graduate surgical education in the United States has typically been regarded as the most effective training experience anywhere. "The hallmark of this experience is a commitment to patient care without regard to time, day of the week, hours worked, or on-call schedule. It is the patient's welfare that comes first."[1(p11)] Now, the call has gone out: find ways to continue the same high standards of surgical education begun by Halsted that fit today's health care system.[15] In other words, change the *personal* ownership of patient care into organized, highly effective *team* ownership of patient care consistent with the systems-based approach. Many of the feared educational consequences of shortened work hours have not materialized. Decreased time spent on duty did not minimize order-writing exposure or test scheduling by interns.[28] Attentional failures were decreased when weekly hours were reduced by eliminating extended shifts.[37] This improvement will presumably apply to learning accomplished during conferences on postcall days. American Board of Surgery In-Training Examination (ABSITE) scores at some programs improved.[2] As others have noted, if we can approach the reconciliation of educational objectives with work-hour limits as a systems problem, it can be solved.[5] Residents know that these changes will have a profound impact on the way they learn to become surgeons; with careful guidance, these changes could reward our profession with better trained and more compassionate colleagues than ever before.

CONCLUSIONS

At issue here is how we view the choices and possible outcomes. We can choose to see a dichotomy between residents who view themselves as having a traditional commitment to their job and their patients beyond schedules and fatigue, and residents who see themselves as personnel, who react to working conditions as other laborers do and require accommodation.[14] However, we propose seeing it differently: a dichotomy between residents trained to fight fatigue in favor of a dedication to patients, and residents trained to respect human limitations, who seamlessly coordinate patient care duties among a team of informed providers. The change that is needed goes beyond an adjustment of schedules and a lecture on competencies. The change that is needed must affect the very ethos of residency.[29] We must reconcile what residents are supposed to do, how they are supposed to relate to patients, the methods by which they are supposed to work together, and the way they must view themselves. The characteristics of those new residents, those *new professionals* must be taught to residents, dem-

onstrated by attendings, and understood by patients. The traditions of duty, honor, and responsibility firmly established in surgical training over the past century must not be discarded; rather, we must maintain those traditions through different means. Responding to this challenge in such a constructive way will attract better-quality residents, improve the public's perception of our discipline, and retain governance within the profession.[15] When we are finished, we will no longer hear "that is not my patient." Residents will instinctively say instead, "that is *our* patient," and they will care for him or her better than ever before.

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