

# Mentoring the modern surgeon

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*A mentor helps you to perceive your own weaknesses  
and confront them with courage.  
The bond between mentor and protégé enables us  
to stay true to our chosen path until the very end.*

—Daisaku Ikeda,  
Buddhist leader and writer



**T**he relationship between a mentor and a mentee is one of the most well-established means of professional development. The original Halstedian system of surgical training relied on this principle. Surgeons trained under the Halstedian system learned directly under the professional and technical guidance of their mentors. In William S. Halsted’s own words, this system was intended to “produce not only surgeons, but surgeons of the highest type, men who will stimulate the first youths of our country to study surgery and to devote their energies and their lives to raising the standard of surgical science.”<sup>1</sup> Producing surgeons of the highest type requires more than teaching and instruction; it requires strong mentorship.

The literature is replete with definitions of mentors. For example, a mentor serves as a “role model, counselor, and advocate for an understudy.”<sup>2</sup> An effective mentor possesses “patience, enthusiasm, knowledge, and a sense of humor” and can “wake up” his or her mentee to important lessons.<sup>3</sup> A successful mentor practices the three Cs: competence, confidence, and commitment.<sup>4</sup> An effective mentor must “ultimately liberate the trainee to complete the maturation process.”<sup>5</sup> The mentor-mentee relationship is not about intelligence, political affiliations, race, ethnicity, or even surgical interests. As Murray F. Brennan, MD, FACS, has pointed out, “A genuine mentor is truly politically color blind.”<sup>6</sup>

While the practice of surgery has changed immensely since Halsted’s time, mentorship remains crucial in shaping the next generation of surgeons. This article will discuss the dynamics of mentorship in a post-Halstedian world of surgical training.

### **Demands on 21st century mentors**

The modern surgical resident faces a training environment that is adapting to curriculum guidelines, duty-hour regulations, and, in some instances, reformulation.<sup>7</sup> All of these changes have obligated the mentor-mentee relationship to evolve. Today’s trainees require a more complex approach to mentoring to meet their diverse needs. (See boxed item, this page.)

Besides clinical and surgical skills, surgical trainees must acquire a broad range of technical, interpersonal, administrative, and research skills. Today’s mentors must disseminate their knowledge of and passion for surgery in an environment that bears little resemblance to the one in which they have trained and developed as mentors.

Professional and societal expectations of surgeons are changing, and the changes inevitably make the process of successful mentorship more difficult. Increased diversity in the workplace and among the patient population challenges traditional, male-dominated or western-oriented value systems in the daily approach to delivering surgical care and teaching surgery to medical students. Ever more burdensome billing and privacy guidelines require young surgeons to develop a financial and documentation savvy not otherwise honed during their medical training. Higher and

## **What makes a good mentor?**

### *A mentor’s perspective*

**R**ichard Karl, MD, FACS, chairman of surgery at University of South Florida, Tampa, who has been a fundamental mentor in the formation of many generations of surgeons, particularly surgical oncologists, was asked to reflect on his own mentors.

For Dr. Karl, the most memorable characteristics of his mentors included being generous in their sharing of knowledge while encouraging development and success. They were good communicators, confidants, and they demonstrated love for surgery and did it well. They lived a life both full and rich. “One can only hope that one day, the mentee will become an even better surgeon than his mentors,” Dr. Karl said.

higher debt burdens faced by new graduates sometimes force them to forgo their professional passions in order to move on with their lives. Thus, the evolving and wide-ranging needs of today’s surgical trainees require a constant adaptation in the act of mentorship.

One might expect that at least the technical aspects of mentorship have not changed since Halsted’s time. However, the acquisition of technical skills can no longer follow the tenet of “see one, do one, teach one.” Today, professional and public tolerance for a learning curve when acquiring technical skills is much less than in previous decades. This diminished patience, coupled with the rapid pace of surgical innovation, presents a major obstacle for mentors who wish to impart sound surgical skills to their mentees. Mentors may not have the freedom to allow their mentees to learn from their technical errors, or they may even lack a new skill set and be unable to teach certain techniques because of a technological generation gap.

### **Expectations from 21st century mentees**

Data suggest that mentorship plays a determining role in a surgical resident’s career trajectory. A recent survey of 74 graduating surgery

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residents found that 73 percent selected the subspecialty of their mentor.<sup>8</sup> Whether residency graduates seek out mentors in their preferred field or are influenced by mentors in choosing a certain specialty was not assessed in this survey. However, it was apparent that mentors are individuals who inspire residents to approach each patient or each task with a will to succeed. The best mentors instill confidence but also help residents analyze their own abilities and assess their strengths and weaknesses. Residents want to emulate their mentors because they have shown them their character as well as their skills and expertise. Anecdotal evidence indicates that the relationship between mentor and mentee will often continue well past the end of residency.

For residents, mentorship at its most basic level means a relationship with at least one person whose path they would like to follow. For many, the path is forged on the basis of surgical interests; however, the mentor-mentee relationship generally extends well beyond such matters. Mentors not only reflect a passion for a particular surgical field but also reflect an attitude toward work, an approach to work-life balance, a commitment to basic or clinical research, a style of administration, or a devotion to public health. Thus, residents select mentors based on these latter attributes as well. It seems that instillation of strong values and compassion for one's work is the common thread among all of these different areas of mentorship.

In recent years, a mentor's lifestyle has played a larger role in the mentor-mentee relationship. Finding the right balance between work and home life is difficult, and interactions with individuals who seemingly have done this well is important to today's residents. The same residents who tended to follow in their mentors' clinical footsteps also cited lifestyle concerns as an important factor in specialty selection.<sup>8</sup>

### **Mentoring IMGs in surgery**

Of the myriad challenges facing surgical mentors today, one of the biggest challenges is successfully mentoring trainees from different cultural and/or educational backgrounds. International medical graduates (IMGs) who wish to become successful surgeons face unique

linguistic and cultural barriers and sometimes even face overt discrimination in their surgical training.<sup>9</sup> IMGs' mentors need to be especially conscientious when helping their mentees to overcome these obstacles. Fostering a tolerant environment is the cornerstone for successful mentorship of the IMG. Indeed, insightful and inspiring mentors have proven essential to the success of IMGs in surgery.

IMGs aspiring for surgical training come to the U.S. from all over the world, many from countries where English is not the primary language.<sup>10</sup> They face two kinds of linguistic difficulties. The first challenge relates to spoken English and the ability to communicate with patients and express emotional empathy. IMGs may become frustrated when they fail to adequately understand or express their level of sympathy with distressed patients.<sup>11</sup> The stress of practicing medicine, training, and expressing oneself in a non-native language cannot be underestimated. The second linguistic challenge relates to medical jargon used by professionals and laypersons alike. The mental challenges of deciphering acronyms and paraphrasing can prove overwhelming to a trainee who must also juggle the usual rigors of surgical training. A newly arrived IMG may misinterpret an attending who asks him or her to give the patient "some bug juice" and then to schedule for a "chole" in the morning.<sup>12</sup> A mentor is essential for helping an IMG face the linguistic challenge without feeling inadequate. The mentor must specifically assess and address issues in cross-professional and doctor-patient communication that might otherwise come naturally to a U.S. graduate. He or she can direct the IMG to appropriate English courses, can explain the subtle differences in body language, can elucidate the meaning of medical jargon without being judgmental, and can help promote a frank and open approach to patients when language is an issue.

IMGs entering the American health care system also face unique cultural challenges, as most countries have vastly different access to resources and attitudes toward health care compared with the U.S. In many countries, a paternalistic style of medicine is not only practiced but also expected by patients, and the physician's authority is seldom in question, as often occurs in the U.S. IMGs

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may find it difficult to take on the comparatively open dialogue that occurs between physicians and patients in the U.S. Other cultural challenges are rooted in broad sociocultural differences across countries not specifically related to the practice of medicine. For example, caring for people of the opposite gender or homosexuals may prove to be difficult regardless of the medical issues involved. Addressing colleagues

by their first names might be equally difficult to some, as minor as it may seem to those from a western cultural background. A mentor can alleviate some of the burden of an IMG's cultural transition by providing an informal how-to course in American culture and role-modeling the U.S. style of medicine that patients have come to expect. The IMG faces a self-discovery and value test while trying to blend into the

## Mentoring a new generation of surgeons

**A**CS Executive Director Thomas R. Russell, MD, FACS, made mentoring the focus of the inaugural Herand Abcarian lecture delivered at the Clinical Congress in New Orleans, LA, last year. As he noted in his presentation, "Mentors are... interested in their trainees not only professionally, but as human beings as well. They promote their trainees' efforts to balance professional and personal needs and obligations. They are, on multiple levels, a resident's or a student's support system and biggest fan."

Dr. Russell noted that an unintended consequence of the 80-hour workweek resulted in diminished opportunities for mentor-mentee interaction. Furthermore, beyond work-hour restrictions, he highlighted the many ways in which the practice of surgery nowadays is far different than what it was during the time when most mentors trained. These changes, he argued, call for a different type of mentor—today, teaching by example in the operating room, on rounds, and in the clinic is only a small facet of good mentorship.

Today, the surgical workforce is more accurately reflecting the gender and ethnic diversity of the population. Advances in surgical technology have increased the breadth of a surgeon's armamentarium to include not only open procedures but laparoscopic, endoscopic, and catheter-based procedures as well. Simultaneously, advances in the field of medicine demand that the surgeon be aware of the various noninvasive means of treating what previously were surgical diseases (such as gene therapy, molecular targeting therapy, and advanced chemotherapeutic agents). Meanwhile, growing awareness that physiologic and psychological healing are intertwined suggests that surgical care might perhaps

benefit from a multidisciplinary team approach stretching beyond surgical subspecialties. Increased public and payor demand for accountability and a growing focus on quality of care mean that surgeons must police their own outcomes. Data collection is as important for the typical surgeon as it is for the seasoned academic researcher. The financial and regulatory challenges to the delivery of care affect not only surgeons but all medical practitioners. Surgeons need to rise above disciplinary snobbery and unite with all providers to improve the circumstances in which comprehensive health care is both delivered and received.

As Dr. Russell said, "A good mentor will foster an environment in which honest mistakes are seen as opportunities to learn and in which people can freely receive support and information from others." Although teaching technical skills and clinical judgment remains the cornerstone of mentorship, in light of this evolution of surgery, a multifaceted approach to mentorship is warranted. Modern-day mentors must also model effective communication, interpersonal skills, time-management strategies, and successful prioritization of multiple competing professional and personal interests. Dr. Russell acknowledged both limited face-to-face time between mentors and mentees and the reality that not all mentors will themselves have mastered all of the facets of mentorship. Dr. Russell then proposed innovative new approaches to mentorship, including multiple senior mentors with individual strengths and experiences in specific areas as well as peer mentorship in which mentees benefit from networking amongst each other while simultaneously experiencing mentorship from a more seasoned surgeon.

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American cultural and medical landscape. A thoughtful mentor can provide the moral support to make it a successful journey.

Linguistic and cultural challenges aside, IMGs face a bigger hurdle in dealing with the perception that they are not as deserving of a career in surgery. There is widespread belief that the reputation of a surgical residency program is negatively affected by the presence of IMGs among housestaff. Despite studies demonstrating unequivocal contribution of IMGs to the progress of medicine and surgery in the U.S., IMGs are generally thought of as less competent than U.S. medical graduates.<sup>10,13,14</sup> Moore and colleagues reported in 2002 that 70 percent of surgical program directors believed that IMGs are discriminated against, and that 20 percent reported being pressured to rank a less-qualified U.S. graduate higher than a more-qualified IMG.<sup>9</sup> Practically speaking, visa limitations do adversely affect the ability of many IMGs to pursue dedicated research years during their residencies and thus may put them at a serious disadvantage when applying for fellowships. A concerned mentor can be an advocate for an IMG's career pursuits and can provide the moral support needed to work through challenging emotional times when one is discriminated against or believes there has been discrimination.

Mentoring IMGs requires the dedication and compassion of mentoring all trainees. Mentors of IMGs should not consider the unique challenges of their mentees to be a weakness but an opportunity to grow mutually in an increasingly diverse world of medicine. With appropriate opportunities and guidance, IMGs can achieve the greatest in surgery that Halsted aimed for. In particular, program directors should acknowledge these barriers faced by IMGs early in their residency and assign them advisors to help them overcome these burdens and guide them through the initial steps in their career. This approach will facilitate the transition and will allow them to perform to their actual potential and capabilities.

Recently, a new resource has become available to improve the mentorship of IMGs. In 2006, the Educational Commission for Foreign Medical Graduates (ECFMG) launched a new acculturation program to assist IMGs with the transition to working and living in the U.S. As

part of this program, ECFMG is developing a spectrum of resources designed to help IMGs as they learn about the U.S. medical system in which they will be learning and training. These resources will also cover practical issues, both professional and social, for IMGs and any family members who may accompany them to the U.S. Institutional mentors working with IMGs will now be able to enlist the help of additional mentors through the ECFMG Acculturation Program IMG Advisors Network. The network is a free service that allows qualified IMGs who will be coming to the U.S. to connect with advisors who can answer questions about working and living in the country.

### Teaching mentorship

Mentorship can be formal or informal. Formal mentoring usually begins with the assignment of an advisor within the surgical department. Whether the advisor and advisee in turn develop a mentor-mentee relationship, however, is not guaranteed. It seems that there is a higher likelihood that the advisor relationship will grow into a mentorship if advisors are self-selected.<sup>5</sup> Informal mentoring is what residents receive daily from interactions with more senior surgeons, be they upper-level residents or attendings. This informal facet of mentoring may become particularly important for residents learning in a specialty-dominated department. For example, a resident may receive important advice and technical teaching from both the traumatologist and the breast surgeon. Day-to-day investment in teaching a resident may result in mentorship when the teacher and the student share common goals as surgeons even across specialties. Formal and informal mentorships are expected to happen throughout a surgeon's training but the many steps of training rarely include how to successfully mentor others. However, mentorship is not an inherent trait. Mentorship by and large has been a casually acquired trait with varying levels of success, but it is clear that the face of medicine and surgical training in the 21st century require deliberate cultivation of mentors.

Professional mentorship requires mentors to teach the triad of self-recognition, formation of relationships with others, and professional

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responsibilities. The stages of productive mentoring may be counter to the learned adaptive behaviors and instinctive personality traits of some accomplished surgeon-educators. Fostering



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effective mentoring relationships in surgery requires a concerted effort to develop appropriate behaviors that are conducive to the mentoring process. The personal and professional growth of surgical trainees and the success of the field of surgery are dependent on the successful creation of an environment conducive to mentoring.

Furthermore, the success of mentorship is two-sided, with responsibilities for both the mentor and the mentee. The benefits of this relationship must be bidirectional and both individuals must take responsibility to ensure mutual benefit. This relationship requires time, patience, dedication, and, to some degree, selflessness. It remains our responsibility to understand the changing times and effect changes for successful mentoring in the specialty of surgery in a modern era. As in Halsted's times, mentorship will ultimately be the best tool for mastering the complex professional skills and maturing through various learning curves required to be a successful surgeon.

Key to the success of mentorship is understanding that mentoring is a lifelong process. Even the most seasoned mentor may benefit from being someone else's mentee. Moreover, each individual has the potential to become a mentor. Surgical residents should rely on their mentors to achieve the highest standard in terms of clinical, technical, and research acumen but should also strive to become mentors themselves to ensure that many generations of surgeons to follow will continue to live up to Halsted's vision of surgeons of the highest caliber.

The American College of Surgeons has long recognized the role mentors play in the development of a new generation of surgeons and the importance of learning how to mentor well. In 2006, Edward M. Copeland III, MD, FACS, then-President of the College, presented "The Role of a Mentor in Creating a Surgical Way of Life" in his Presidential Address at the Clinical Congress in Chicago, IL. In 2007, at the Clinical Congress in New Orleans, LA, the College's Executive Director, Thomas Russell, MD, FACS, discussed "Mentoring a New Generation of Surgeons" in the inaugural Herand Abcarian lecture (see text box on page 22).

Each year, the College hosts a Residents As Teachers and Leaders course that helps foster

skills in mentorship. In addition, this year the College and its Resident and Associate Society are sponsoring a competition for residents and fellows to write about the positive impact a mentor has played during their training and career achievement.\*

## References

1. Kerr B, O'Leary JP. The training of the surgeon: Dr. Halsted's greatest legacy. *Am Surg.* 1999;65(11):1101-1102.
2. Pellegrini VD Jr. Mentoring during residency education: A unique challenge for the surgeon? *Clin Orthop Relat Res.* 2006;449:143-148.
3. Schrubbe KF. Mentorship: A critical component for professional growth and academic success. *J Dent Educ.* 2004;68(3):5.
4. Morton-Cooper A, Palmer A. Mentoring in practice. In: Morton-Cooper A, Palmer A, eds. *Mentoring, Preceptorship and Clinical Supervision.* Oxford: Blackwell Science; 2000:59-62.
5. Ford HR. Mentoring, diversity, and academic surgery. *J Surg Res.* 2004;118(1):1-8.
6. Brennan MF. Lessons learned. *Ann Surg Oncol.* 2006;13(10):1322-1328.
7. Bass BL. Fundamental changes in general surgery residency training. *Am Surg.* 2007;73(2):109-113.
8. McCord JH, McDonald R, Levenson G, et al. Motivation to pursue surgical subspecialty training: Is there a gender difference? *J Am Coll Surg.* 2007;205(5):698-703.
9. Moore RA, Rhodenbaugh EJ. The unkindest cut of all: Are international medical school graduates subjected to discrimination by general surgery residency programs. *Curr Surg.* 2002;59(2):228-236.
10. Aranha GV. The international medical graduate in U.S. academic general surgery. *Arch Surg.* 1998;133(2):130-133.
11. Fiscella K, Roman-Diaz M, Lue BH, Botelho R, Frankel R. "Being a foreigner, I may be punished if I make a small mistake": Assessing transcultural experiences in caring for patients. *Fam Pract.* 1997;14(2):112-116.
12. Fiscella K, Frankel R. Overcoming cultural barriers: International medical graduates in the United States. *JAMA.* 2000;283(13):1751.
13. Akl EA, Maroun N, Major S, et al. Graduates of Lebanese medical schools in the United States: An observational study of international migration of physicians. *BMC Health Serv Res.* 2007;7:49.
14. Akl EA, Mustafa R, Bdair F, Schunemann HJ. The United States physician workforce and international medical graduates: Trends and characteristics. *J Gen Intern Med.* 2007;22(2):264-268.

\*Surgeons-in-training are invited to submit a 500-word essay describing what role their mentor has played in their personal and professional development. The top essays, as judged by the RAS-ACS Communications Committee, will be published in the *Bulletin of the American College of Surgeons* as part of an ongoing series of articles generated by members of RAS. At the 2009 Clinical Congress in Chicago, IL, an award including a \$500 honorarium will be presented to the writer of the essay that best expresses the meaningfulness of the mentor-mentee relationship in surgical training. Submissions should be sent to hppatel@post.harvard.edu no later than July 31, 2008.

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