The Changing Landscape of Orthopedic Practice: Challenges and Opportunities

Mohamad J. Halawi, MD, and Tyler J. Vovos, MD

Orthopedic surgery is going through a time of remarkable change. Health care reform, heightened public scrutiny, shifting population demographics, increased reliance on the Internet for information, ongoing metamorphosis of our profession into a business, and lack of consistent high-quality clinical evidence have created a new frontier of challenges and opportunities. At heart are the needs to deliver high-quality education that is in line with new technological media, to reclaim our ability to guide musculoskeletal care at the policymaking level, to fortify our long-held tradition of ethical responsibility, to invest in research and the training of physician-scientists, to maintain unity among the different subspecialties, and to increase female and minority representation. Never before has understanding and applying the key tenets of our philosophy as orthopedic surgeons been more crucial.

The changing landscape of orthopedic practice has been an unsettling topic in many of the American Academy of Orthopaedic Surgeons (AAOS) presidential addresses in recent years.[1-11] What are the challenges and what can we learn moving forward? In this article, we seek to answer these questions by drawing insights from the combined experience and wisdom of past AAOS presidents since the turn of the 21st century.

Education

Education is the cornerstone of providing quality musculoskeletal care[12] and staying up to date with technological advances.[13] The modes of education delivery, however, have changed. No longer is orthopedic education confined to tangible textbooks and journal articles, nor is it limited to those of us in the profession. Instead, orthopedic education has shifted toward online learning[14] and is available to patients and nonorthopedic providers.[12] With more patients gaining access to rapidly growing online resources, a unique challenge has arisen: an abundance of data with variable quality of evidence influencing the decision-making process. This has created what Richard Kyle[15] described as the "trap of the new technology war," where patient misinformation and direct-to-consumer marketing can lead to dangerous musculoskeletal care delivery, including unrealistic patient expectations.[3] To compound the problem, our ability to provide orthopedic education in formats compatible with the new learning mediums has not been up to the demand, with issues of cost, accessibility, and efficacy plaguing the current process.[3,5] Also, we have yet to unlock the benefits of surgical simulation, which has the potential to provide more effective training at no risk to the patient.[4,13] By adapting to the new learning formats, we can provide numerous new opportunities for keeping up to date on evolving practice management principles, which, with added accessibility, will be used more often by orthopedic surgeons and the public.[13]

Research

Research is vital for quality improvement and the continuation of excellence.[5] It is only with research that we can provide groundbreaking advances and measure the outcomes of our interventions.[2] Unfortunately, orthopedic research funding continues to be disproportionately low, especially given that musculoskeletal ailments are the leading cause of both physician visits and chronic impairment in the United States.[2] For example, the National Institute of Arthritis and Musculoskeletal and Skin Diseases receives only 10% of what our country spends on cancer research and 15% of what is spent on heart- and lung-disease research.[2] To compound the problem of limited funding, the number of physician-scientists has been dropping at an alarming rate.[2] As a result, we must not only refocus our research efforts so that they are efficient and effective, but we must also invest in the training of orthopedic physician-scientists to ensure a continuous stream of groundbreaking discoveries. We owe it to our patients to provide them with proven, effective, and high-quality care.

Industry Relationships

Local and national attention will continue to focus on our relationships with industry. The challenge is twofold: mitigating the negative portrayal of industry relationships and navigating the changes applied to industry funding for research and education.[9] Our collaboration with industry is important for the development and advancement of orthopedics,[15] but it must be guided by the professional and ethical guidelines established by the AAOS, ensuring that the best interest of patients remains a top priority.[8,15] We must maintain the public's trust by using

Dr. Halawi and Dr. Vovos are Residents, Department of Orthopaedic Surgery, Duke University Medical Center, Durham, North Carolina.

Authors' Disclosure Statement: The authors report no actual or potential conflict of interest in relation to this article.

Address correspondence to: Mohamad J. Halawi, MD, Department of Orthopaedic Surgery, Duke University Medical Center, Box 3000, Durham, NC 27710 (tel, 919-684-3170; fax, 919-681-7672; email, mohamad.halawi@dm.duke.edu).

Am J Orthop. 2015;44(12):E530-E532. Copyright Frontline Medical Communications Inc. 2015. All rights reserved.

every opportunity to convey our lone goal in collaborating with industry, ie, improving patient care.[9] According to James Beaty,[7] any relationship with industry should be "so ethical that it could be printed on the front page of the newspaper and we could face our neighbors with our heads held high."

Gender and Minority Representation

The racial and ethnic makeup of the United States is undergoing a rapid change. Over the next 4 decades, the white population is projected to become the minority, while women will continue to outnumber men.[16] Despite the rapidly changing demographics of the United States, health care disparities persist. As of 2011, minorities and women made up only 22.55% and 14.52%, respectively, of all orthopedic surgery residents.[17] This limited diversity in orthopedic training programs is alarming and may lead to suboptimal physician–patient relationships, because patients tend to be more comfortable with and respond better to the care provided by physicians of similar background.[3] In addition, if we do not integrate women into orthopedics, the number of female medical students applying to orthopedic residency programs might decline.[3]

Equating excellent medical care with diversity and cultural competence requires that we bridge the gap that has prevented patients from obtaining high-quality care.[8] To achieve this goal, we need to continue recruiting orthopedic surgeons from all segments of our population. Ultimately, health care disparities can be effectively reduced through the delivery of culturally competent care.[8]

Physician–Patient Relationship

Medical liability has resulted in the development of damaging attitudes among physicians, with many viewing patients as potential adversaries and even avoiding high-risk procedures altogether.[6] This deterioration of the physician–patient relationship has been another troubling consequence of managed care that emphasizes quantity and speed.[1] As a result, we are perceived by the public as impersonal, poor listeners, and difficult to see on short notice.[1]

The poor perception of orthopedic surgeons by the general public is not acceptable for a field that places such a high value on excellence. Patient-centered care is at the core of quality improvement, and improving patient relationships starts and ends with us and with each patient we treat.[6] In a health care environment in which the average orthopedic surgeon cares for thousands of patients each year, we must make certain to use each opportunity to engage our patients and enhance our relationships with them.[6] The basic necessities of patient-centered care include empowerment of the patient through education, better communication, and transparency; providing accurate and evidence-based information; and cooperation among physicians.[3,6] The benefits of improving personal relationships with patients are multifold and could have lasting positive effects: increased physician and patient satisfaction, better patient compliance, greater practice efficiency, and fewer malpractice lawsuits.[1] We can also benefit from mobilizing a greater constituency to advocate alongside us.[6]

Unity

Despite accounting for less than 3% of all physicians, orthopedic surgeons have assumed an influential voice in the field of medicine.[13] This is attributed not only to the success of our interventions but, more importantly, to the fact that we have "stuck together."[13] The concept of "sticking together" may seem a cliché and facile but will certainly be a pressing need as we move ahead. We draw strength from the breadth and diversity of our subspecialties, but this strength may become a weakness if we do not join in promoting the betterment of our profession as a whole.[14] To avoid duplications and bring synergy to all our efforts, we should continue to develop new partnerships in our specialty societies[6] and speak with one voice to our patients and to the public.[15] Joshua Jacobs[11] reminds us of the warning Benjamin Franklin imparted to the signers of the Declaration of Independence, "We must hang together, or most assuredly, we will all hang separately." To ensure the continued strength of the house of orthopedics, we must live by this tenet.

Advocacy

The federal government has become increasingly involved in regulating the practice of medicine.[9] Orthopedic surgery has been hit especially hard, because the cost of implants and continued innovation has fueled the belief that our profession is a major contributor to unsustainable health care costs.[11] We now face multiple legislative regulations related to physician reimbursement, ownership, self-referral, medical liability, and mandates of the Affordable Care Act.[9] As a result, there has been a decreasing role for orthopedic surgeons as independent practitioners, with more orthopedists forgoing physician-owned practices for large hospital corporations. We are also in increasing competition for limited resources.[10] This is compounded by the fact that those regulating health care, paying for health care, and allocating research funding fail to comprehend the high societal needs for treatment of musculoskeletal diseases and injuries,[6] which will only increase in the coming decades.[14]

The aforementioned challenges make our involvement at all levels of the political process more necessary than ever before.[5,9] E. Anthony Rankin[8] reminds us, "As physicians, we cannot in good conscience allow our patients' access to quality orthopedic care to be determined solely by the government, the insurance companies, the trial lawyers, or others…. Either we will have a voice in defining the future of health care, or it will be defined by others for us." Our advocacy approach, however, should be very careful. Joshua Jacobs[11] cautions that "we will be most effective if our advocacy message is presented as a potential solution to the current health care crisis, not just as a demand for fair reimbursement." Instead, we can achieve this goal with what Richard Gelberman[2] summarized as "doing what we do best: accumulating knowledge, positioning ourselves as the authorities that we are, and using what we learn to advocate for better patient care and research."

Value Medicine

Orthopedic surgeons are now expected to provide not just high-quality care but low-cost care. In line with the emerg-

ing emphasis on value, sharp focus has been placed on the assessment of physician performance and treatment outcomes as quality-of-care measures.[6] But how have we measured the quality of the care we provide? We have not, or, at least, we have not had valid or reliable means of doing so.[6] Gone are the days of telling the world of the excellence of our profession in the treatment of musculoskeletal disease. We now must prove to our patients, the government, and payers that what we do works.[12,13] If we fail to communicate the cost effectiveness of our interventions, our new knowledge and technologies will not be accepted or funded.[10] We should, however, not be discouraged by the new "value equation," but use it as an incentive to provide evidence-based care and to improve the efficiency of resource utilization.[14] Today, we are urged to be leaders in quality improvement, both in our individual orthopedic practices and as a profession.[10,12,13]

Conclusion

Meeting increasingly higher demands for musculoskeletal care in an evolving medical landscape will bring a new set of challenges that will be more frequent and more intense than those in the past.[14] Today, we are tasked with providing fiscally efficient, culturally competent, high-quality, evidence-based, and compassionate care. We are also tasked with reclaiming our ability to shape the future of our profession at the policymaking level. In doing so, the need for unity, advocacy, commitment to education and research, women and minority representation, and open communication with the public has never been more relevant. As we continue to advance as a profession, we must resist the temptation to look back in defiance of change but move forward, confident in our ability to evolve. ■

References

1. Canale ST. The orthopaedic forum. Falling in love again. *J Bone Joint Surg Am*. 2000;82(5):739-742.
2. Gelberman RH. The Academy on the edge: taking charge of our future. *J Bone Joint Surg Am*. 2001;83(6):946-950.
3. Tolo VT. The challenges of change: is orthopaedics ready? *J Bone Joint Surg Am*. 2002;84(9):1707-1713.
4. Herndon JH. One more turn of the wrench. *J Bone Joint Surg Am*. 2003;85(10):2036-2048.
5. Bucholz RW. Knowledge is our business. *J Bone Joint Surg Am*. 2004;86(7):1575-1578.
6. Weinstein SL. Nothing about you...without you. *J Bone Joint Surg Am*. 2005;87(7):1648-1652.
7. Beaty JH. Presidential address: "Building the best . . . Lifelong learning". *J Am Acad Orthop Surg*. 2007;15(9):515-518.
8. Rankin EA. Presidential Address: advocacy now... for our patients and our profession. *J Am Acad Orthop Surg*. 2008;16(6):303-305.
9. Zuckerman JD. Silk purses, sows' ears, and heap ash—turning challenges into opportunities. *J Am Acad Orthop Surg*. 2009;17(5):271-275.
10. Tongue JR. Strong on vision, flexible on details. *J Am Acad Orthop Surg*. 2012;20(4):187-189.
11. Jacobs JJ. Moving forward: from curses to blessings. *J Am Acad Orthop Surg*. 2013;21(5):261-265.
12. Callaghan JJ. Quality of care: getting from good to great. *J Am Acad Orthop Surg*. 2010;8(9):516-519.
13. Berry DJ. Informed by our past, building our future. *J Am Acad Orthop Surg*. 2011;19(4):187-190.
14. Azar FM. Building a bigger box. *J Am Acad Orthop Surg*. 2014;22(6):341-345.
15. Kyle RF. Presidential Address: Together we are one. *J Am Acad Orthop Surg*. 2006;14(5):261-264.
16. Vincent GK, Velkoff VA. *The Next Four Decades: The Older Population in the United States: 2010 to 2050*. Washington, DC: Economics and Statistics Administration, US Census Bureau, US Dept of Commerce; 2010.
17. American Academy of Orthopaedic Surgeons Department of Research and Scientific Affairs. 1998-2011 Resident Diversity Survey Report. American Academy of Orthopaedic Surgeons website. http://www3.aaos.org/about/diversity/pdfs/resident_trend.pdf. Published March 9, 2012. Accessed October 26, 2015.