

EDITORIAL

Scholarly Productivity, Academic Success, and Beyond

IN THIS ISSUE of the *Journal*, Pagel and Hudetz examine the scholarly productivity of academic cardiac anesthesiologists in the United States.¹ They use the h-index, a “bibliometric statistic” defined as the number (h) of an individual’s publications that have been cited at least h times in the peer-reviewed literature.² Not surprisingly, the h-index increased with academic rank. Thus, such a measurement is certainly one indication of academic success, incorporating the quality and appeal of an individual’s scientific output. Hence, the investigators are to be congratulated for quantifying the current status of such success among cardiac anesthesiologists practicing in academic health care centers in the United States.

Pagel and Hudetz also examine the relation of a faculty anesthesiologist’s h-index to the American College of Medical Education accreditation status of the cardiothoracic anesthesia fellowship program at the anesthesiologist’s institution. Those working in a program accredited by the American College of Medical Education had a higher mean h-index than those working in unaccredited programs. The reasons for this result are unknown. However, the investigators reasonably speculate that there may be differences in the amount of nonclinical time granted to faculty, the amount of National Institutes of Health grant support received by faculty, or the less tangible criterion of relative “academic strength” of faculty in institutions with accredited fellowships compared with those unable to receive such accreditation.

In addition, Pagel and Hudetz examine the relation of the h-index to an investigator’s National Board of Echocardiography credentials in perioperative transesophageal echocardiography (TEE). Not surprisingly, the scholarly output of academic cardiac anesthesiologists did not depend on TEE credentials. Pagel and Hudetz theorize that there may be little relation between an anesthesiologist’s specific set of clinical skills and his or her ability to publish notable scientific work. Certainly, many academic colleagues in cardiac anesthesia have built careers based on new developments and scientific discovery involving TEE technology, but many other academic cardiac anesthesiologists have made remarkable scientific con-

tributions and are recognized experts in diverse and important areas such as cerebral protection, transfusion medicine, heart failure, and genomics.

It is fair to say that the h-index is an indicator of academic growth. For those cardiac anesthesiologists seeking promotion and/or tenure in their institution, research and resultant publications are usually a very important aspect of success. Also, excellence and innovation in educational scholarship often lead to academic promotion. Developing and improving educational programs and mentoring aspiring and junior faculty provide great value within an institution. Nevertheless, as all anesthesiologists well know, the clinical mission remains paramount in every academic health care center; hence, excellent clinical skills and service must be recognized and respected.

For those cardiac anesthesiologists who aspire to movement toward an institutional leadership position, even achievement of excellence in the tripartite missions of research, education, and clinical service provides no guarantees (although an anesthesiologist with this “triple-threat” status certainly should have a comprehensive understanding of the multiple missions to be served). Regardless of specialty, successful leadership in academic medicine entails development of qualities such as communication and interpersonal relationships, empathy, equity, justice, organization and prioritization, work ethic, administrative skills, role modeling, interest in trainees and younger colleagues, and balancing work and personal life.³ For example, for the position of department chair, there is less emphasis on a track record in research, with external funding and publications in prestigious journals and a national reputation, and more emphasis on demonstrated competence across the clinical, educational, and research missions, business and administrative experience, and especially emotional intelligence, competence, and resilience.⁴⁻⁶

So what really is important for academic and overall professional success? Is it the h-index? Is it TEE skills and Board of Echocardiography credentials? Is it the respect and recognition one receives as a superb clinician educator and mentor? Is it the leadership role in an institution and/or professional society? It may be any or all of these. According to Marshall Goldsmith,⁷ a leading authority in helping successful people become even more successful, the important thing is “mojo,” that positive spirit toward one’s present endeavor.⁸ The 4 elements for great mojo (and the keys to professional success) are identity (Who do *you* think you are?), achievement (What have you done lately? What are your recent accomplishments that have meaning and impact?), reputation (Who do other people think you are? What do other people think you’ve done lately?), and acceptance (What can you change,

and what is beyond your control?).⁸ Goldsmith teaches that “truly successful people spend a large part of their lives engaging in activities that simultaneously provide meaning and happiness” and “the only person who can define meaning and happiness for you is *you!*”⁸

In summary, the h-index provides a starting point for understanding the concepts of scholarly productivity, “promotion worthiness”, and academic growth. However, the intangibles described above are more important elements in achieving professional (and personal) success.

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