

*Sounding Board***MISSION CRITICAL — INTEGRATING CLINICIAN-EDUCATORS INTO ACADEMIC MEDICAL CENTERS**

THE mission of academic medical centers typically includes three distinct goals: providing patient care, educating future doctors, and acquiring new medical knowledge.¹ Academic medical centers seek excellence in each of the three areas to distinguish themselves as outstanding in the local community, region, and nation. Although the mission statements of most academic medical centers do not point to one of these goals as more important than the others, we believe that the research goal has predominated during the past three decades, as evidenced by reward and promotion systems that are heavily weighted toward research. As academic medical centers rapidly expanded their clinical services to compete in the marketplace, many centers focused on building their clinical programs while simultaneously continuing their commitment to research and education.² As a result, academic institutions began to hire more full-time clinician-educators to meet the demands for increased clinical services.

These changes have prompted several questions. How will this growing sector become part of the fabric of the academic medical center? Are clinician-educators critical to the institution's achieving its mission? What is their status relative to that of their research colleagues? Has the implementation of distinct clinical-educator tracks met the need for the recognition of these new faculty members?

ROLE OF FACULTY MEMBERS

Historically, academic medical centers have hired a cadre of physicians who are full-time faculty members and who devote their time to research. These faculty members typically spend more than 80 percent of their time on research and devote a relatively small amount of time to patient care and teaching. Often, they see patients for one or two half-days per week in an outpatient clinic and supervise residents in an inpatient setting one month per year. As the competition for research funding has intensified over the past decade, many of these faculty members have devoted even more time to research and have decreased their clinical and teaching activities. As a consequence, they may excel at their research but often have to limit the focus of clinical care and teaching to the area of their research.

Hence, although some faculty members may continue to excel in all three areas, the majority focus on their research and deemphasize teaching and clin-

ical care. They excel at the discovery of new knowledge and ultimately help the institution achieve this part of its mission. They become regional, national, and international experts in their field, publish their work in peer-reviewed journals, obtain grants, and are appropriately promoted in academic rank. The academic medical center values their accomplishments despite the fact that they do not achieve excellence in clinical care or teaching.

How does the role of these faculty members contrast with the role and promotional track of clinician-educators? Clinician-educators in academic medical centers devote their time to caring for outpatients and inpatients and to teaching and supervising medical students and residents.³ Some clinician-educators devote 50 percent of their time to each activity, whereas others may spend 80 to 90 percent of their time caring for patients.⁴ Commonly, they see large numbers of patients, often 20 to 25 per day in a general internal-medicine, pediatric, or family-medicine clinic. Although we will focus here on clinician-educators in the specialties of internal medicine, pediatrics, and family medicine, surgeons and their subspecialty colleagues are required to spend a substantial amount of their time in the operating room and are therefore similar in this regard to other clinician-educators.

As an academic center expands its clinical base, clinician-educators may work on the main campus and in newly created community sites affiliated with the medical center. Clinician-educators often have important roles in the medical school's teaching programs as directors of courses on history-taking and physical-examination skills or in developing ambulatory care rotations for students and residents. The students, residents, and faculty members often recognize clinician-educators as outstanding doctors — the ones they send their own family members to for care. Not surprisingly, they often receive awards for teaching, since they devote their time and intellectual energy to this role. These clinician-educators, particularly the generalists, are frequently cited by house-staff members as their role models.^{5,6} Just as researchers excel at the discovery of new knowledge but have little time for teaching and clinical care, clinician-educators excel at teaching and clinical care but have little time to conduct research. Accordingly, one would expect institutions to recognize clinician-educators for achieving the highest standards related to their principal responsibilities and consistent with their institution's mission. But is that the case?

ESTABLISHMENT OF CLINICIAN-EDUCATOR TRACKS

The criteria for promotion provide clear indications of the expectations institutions have for faculty members. During the past decade or so, most institutions have established new criteria and tracks for

promotion, but we believe that these criteria are incompatible with the job description for clinician-educators.^{2,7,8} Typically, the tracks were developed in response to the growing need to attract, retain, and recognize faculty members who would devote their energy to clinical and teaching activities. Several medical schools reported their early experiences in developing and implementing these clinician-educator pathways, including the medical schools at Stanford University,⁹ Johns Hopkins University,¹⁰ the University of Pennsylvania,¹¹ the University of Michigan,¹² and Harvard University.¹³ The popularity of these tracks grew; surveys indicated that 61 of 112 medical schools had a nontenure clinician-educator pathway by 1987,⁷ and 66 of 115 had either a separate promotion track or specific promotion criteria by 1997.⁸ Most often, these new tracks did not offer the possibility of tenure, partly because of the reluctance of academic institutions to make long-term financial commitments to faculty members with primarily clinical and teaching responsibilities.^{11,14} As a result, a two-tier system emerged in many institutions, with tenure available to research-oriented faculty members but not to clinician-educators.

How successful have these pathways been at recognizing and promoting clinician-educators? At present, there is a lack of information to answer this question. Comparisons of the progress of the career development of clinician-educators and researchers are needed. We are concerned, however, that the implementation of these tracks has not solved the problem of appropriate recognition for clinician-educators.

PROBLEMS WITH CLINICIAN-EDUCATOR TRACKS

We believe that the criteria for promotion are inconsistent with the job descriptions of most clinician-educators. The guidelines for promotion to the ranks of associate professor and professor in clinician-educator tracks typically state that excellence in teaching and clinical care is essential but not sufficient for promotion.^{8,13,15,16} A regional reputation and, in many cases, a national reputation for clinical or educational scholarship are usually required,¹⁷ as evidenced by letters from external referees, as well as by contributions to the medical literature of original articles, reviews, and books. The number of publications, the quality and originality of their content, and the prestige of the journal in which they are published all influence the decisions of most promotion committees in determining the national reputation of these clinician-educators.

But does the requirement for a regional or national reputation make sense for the assessment of clinician-educators? Some academic leaders may argue that a reputation outside his or her home institution attests to a faculty member's excellence. If faculty members are superb clinicians or teachers, persons

outside the institutions should seek them out to learn from them. Although on the surface this argument seems logical, it has two major drawbacks.

First, the expected role of the growing number of clinician-educators in academic centers is to spend virtually all their time providing clinical care and teaching at their own institution. If they have any additional time available, they are encouraged to develop innovative teaching programs or clinical-improvement projects. They are often members or leaders of hospital committees on quality assurance, implementation of guidelines, and information management. This job is not one that encourages or fosters faculty members to leave the local environment. If these faculty members are expected to make important contributions to regional medical care or teaching, those efforts will take away from the time spent at their own institution.

Second, establishing a regional or national reputation as a clinician-educator in the generalist fields of internal medicine, family practice, and pediatrics is particularly difficult. Since generalists rarely become experts on a particular disease, they are less likely than their subspecialty colleagues to have a specific clinical focus of interest. Consequently, they are less sought after than specialists to educate the medical community in a forum such as a grand-rounds lecture. Although some generalists may become experts on topics such as patient-physician communication, ethics, preventive health care, or evidence-based medicine, the opportunities to establish an area of expertise in one of these fields are fewer than for specialists who can narrowly focus on one of the many diseases or approaches to treatment.¹⁸ Hence, the requirement of a regional or national reputation, which is a useful criterion for measuring the dissemination of research and has been a long-standing criterion for the promotion of researchers, is less appropriate for the promotion of clinician-educators.

Evaluating the accomplishments of clinician-educators continues to be a challenge for academic medical centers.¹⁹ Despite the efforts to broaden the definition of scholarship,²⁰ there are few valid and reliable measurement tools. In the teaching domain, academic centers use evaluations by students, peer evaluations, and teaching awards to measure quality.²¹⁻²³ But each of these approaches has limitations. Student evaluations are often subjective and do not necessarily convey how much a student has actually learned from a teacher. Peer evaluations are costly in terms of faculty members' time, and their reliability is uncertain. There are a limited number of teaching awards available, and teachers who do not lead a major course but rather act as preceptors for a small number of students in the inpatient or outpatient setting are less likely to receive these awards even if they are superb teachers.

In the past few years, academic institutions have

begun using “teaching portfolios,” which are designed to be a more comprehensive record of the teaching activities of clinician-educators than is a traditional *curriculum vitae*.²³⁻²⁶ Teaching portfolios include records of faculty teaching roles beyond didactic lectures and document activities such as serving as a mentor for students or residents, leading daily teaching conferences, and participating in the development of educational electives. As compared with a *curriculum vitae*, teaching portfolios offer an opportunity for clinician-educators to represent more fully their contribution to teaching. In our experience, academic faculty members and promotion committees are just learning how to judge teaching portfolios, and questions remain about how best to organize and evaluate them.

The evaluation of clinical excellence is even more problematic. Most certifying boards require recertification to ensure that clinicians keep their clinical knowledge up to date, but few objective mechanisms are available to identify excellence in clinicians. In contrast to the peer-review methods used to measure the quality of scholarly works published in medical journals, the few procedures for evaluating clinical performance are complicated and not widely accepted or implemented.²⁷ At present, the methods most commonly used to judge clinical excellence include peer review and evaluation by trainees. These methods are typically subjective and are rarely based on direct observation of clinical care. Promotion and tenure committees seldom use measures of clinical productivity and excellence such as the number of patients seen, referrals from colleagues, and satisfaction ratings by patients, which are the popular yardsticks in managed-care plans.

In the absence of reliable methods to judge the teaching and clinical excellence of clinician-educators, academic institutions have used the number of publications as a measure of productivity.¹⁰ In fact, reports on the importance of publications to the career advancement of clinician-educators continue to appear,^{8,17,28,29} despite the arguments for new and innovative measures for evaluating scholarship in these areas.

Although we support the publishing of high-quality work by clinician-educators, there are several reasons why publications should not be the primary measurement of performance for these faculty members. The creative work of clinician-educators often lies in the development of new methods for educating students, residents, fellows, or practicing physicians within the institution or locally. Generalist faculty members in particular tend to focus on developing innovative ways to teach topics such as evidence-based medicine, communication skills, and medical ethics. These programs are usually assessed with the use of written evaluations. Rarely are more rigorous approaches, such as randomized studies, feasible to eval-

uate the effectiveness of these programs. As a result, most first-tier journals do not consider articles on these topics to be sufficiently rigorous to warrant publication. In fact, there is a paucity of highly regarded journals that will consider such articles; hence, the work of clinician-educators cannot easily be disseminated in a standard, peer-reviewed format. Even in the *Journal of General Internal Medicine*, which might be expected to be particularly interested in such articles, only 6 percent of the original articles were on medical education last year (Williams S: personal communication). We believe that rigorous scientific evaluation of educational programs is important but will require a substantial amount of time on the part of clinician-educators. However, the job descriptions of such faculty members rarely include the time necessary for this activity.

Lubitz has suggested that clinician-educators should write articles that integrate knowledge rather than seek to discover new knowledge.²³ Typically, this type of scholarship is found in chapters of books and in review articles addressing the diagnosis and treatment of clinical conditions. Alternatively, clinician-educators often publish case reports or case series, drawing from their clinical practice. Although these forms of scholarship may be important, they are often discounted by promotion and tenure committees as lacking rigor. In fact, many clinician-educators themselves recognize that their work is destined to appear in second-tier journals, simply because they must publish something. The pressure to have articles accepted by peer-reviewed journals ultimately takes clinician-educators away from their primary mission of patient care and teaching. Furthermore, the pressure to publish is a major source of dissatisfaction for clinician-educators.

In summary, although clinician-educators have the potential to be promoted in the new pathways, the problem of the recognition of their work has not been solved. Further data are needed to compare the overall effectiveness of these pathways and the traditional research track.

RECOMMENDATIONS

Can academic medical centers stand on the single leg of research? If, in fact, institutions view clinical care and teaching as integral to their missions, they must establish organizational systems that support these endeavors. Clinician-educators must commit approximately 80 percent of their time to clinical care and teaching if they are going to achieve excellence in their chosen field. We believe that academic medical centers should reexamine and modify their promotion criteria in two major ways.

First, the requirement of a regional or national reputation should be eliminated. Demanding that clinician-educators have a regional or national reputation will inevitably diminish their ability to concentrate

on their principal purpose at the institution — the pursuit of excellence in patient care and teaching. Instead, the opinions of coworkers should be sought and given more weight than usual.

Second, the requirement of publication in peer-reviewed journals should be eliminated. Academic institutions should find new and creative ways to evaluate clinician-educators' teaching abilities and clinical excellence. The academic community must devote resources to developing new methods so that institutions can appropriately measure these specific skills and, in turn, reward faculty members who meet established goals. In fact, we believe that the current lack of tools to measure excellence in clinical care and teaching presents an intellectual challenge. New methods may build on existing ones, but they will need to go beyond the present approaches. The knowledge and skills of educational experts will be required for the development of reliable and feasible methods. This task is essential if we are to provide the same rigorous and objective standards that academic medical centers have used to judge the quality of research that scientists produce.

The work of clinician-educators is critical to the mission of academic medical centers. The traditional requirements of publications and regional or national reputation for promotion should not be requirements for success in this track. Academic institutions must develop and implement better methods of evaluating excellence in clinical care and teaching. The alignment of faculty members' responsibilities with institutional missions should enhance productivity and well-being. Ultimately, such changes will lead to more equitable and productive academic organizations.

WENDY LEVINSON, M.D.

University of Chicago
Chicago, IL 60637

ARTHUR RUBENSTEIN, M.B., B.CH.

Mt. Sinai School of Medicine
New York, NY 10029

We are indebted to James Bartscher for his help with the manuscript and to our colleagues for useful feedback.

REFERENCES

- Carey RM, Wheby MS, Reynolds RE. Evaluating faculty clinical excellence in the academic health sciences center. *Acad Med* 1993;68:813-7.
- Bickel J. The changing faces of promotion and tenure at U.S. medical schools. *Acad Med* 1991;66:249-56.
- Levinson W, Branch WT Jr, Kroenke K. Clinician-educators in academic medical centers: a two-part challenge. *Ann Intern Med* 1998;129:59-64.
- Sheffield JVL, Wipf JE, Buchwald D. Work activities of clinician-educators. *J Gen Intern Med* 1998;13:406-9.
- Wright SM, Kern DE, Kolodner K, Howard DM, Brancati FL. Attributes of excellent attending-physician role models. *N Engl J Med* 1998;339:1986-93.
- Henderson MC, Hunt DK, Williams JW Jr. General internists influence students to choose primary care careers: the power of role modeling. *Am J Med* 1996;101:648-53.
- Jones RE. Clinician-educator faculty tracks in U.S. medical schools. *J Med Educ* 1987;62:444-7.
- Jones RE, Gold JS. Faculty appointment and tenure policies in medical schools: a 1997 status report. *Acad Med* 1998;73:212-9.
- Jacobs MB, Tower D. Enhancing the training of internal medicine residents at Stanford by establishing a model group practice and raising its clinical educators' status. *Acad Med* 1992;67:623-30.
- Batshaw ML, Plotnick LP, Petty BG, Woolf PK, Mellits ED. Academic promotion at a medical school: experience at Johns Hopkins University School of Medicine. *N Engl J Med* 1988;318:741-7.
- Parris M, Stemmler EJ. Development of clinician-educator faculty track at the University of Pennsylvania. *J Med Educ* 1984;59:465-70.
- Kelley WN, Stross JK. Faculty tracks and academic success. *Ann Intern Med* 1992;116:654-9.
- Lovejoy FH Jr, Clark MB. A promotion ladder for teachers at Harvard Medical School: experience and challenges. *Acad Med* 1995;70:1079-86.
- Petersdorf RG. The case against tenure in medical schools. *JAMA* 1984;251:920-4.
- Jackson M, MacInnes I. Promotion and tenure in family practice in US medical schools. *J Fam Pract* 1984;18:435-9.
- McHugh PR. A "letter of experience" about faculty promotion in medical schools. *Acad Med* 1994;69:877-81.
- Beasley BW, Wright SM, Cofrancesco J Jr, Babbott SF, Thomas PA, Bass EB. Promotion criteria for clinician-educators in the United States and Canada: a survey of promotion committee chairpersons. *JAMA* 1997;278:723-8.
- Block SD, Clark-Chiarelli N, Peters AS, Singer JD. Academia's chilly climate for primary care. *JAMA* 1996;276:677-82.
- Jones RE, Froom JD. Faculty and administration views of problems in faculty evaluation. *Acad Med* 1994;69:476-83.
- Boyer EL. Scholarship reconsidered: priorities of the professoriate. Princeton, N.J.: Carnegie Foundation for the Advancement of Teaching, 1990.
- Rothman AI, Poldre P, Cohen R. Evaluating clinical teachers for promotion. *Acad Med* 1989;64:774-5.
- Yonke A, Foley R, Bartlett G, Bloomfield D, Whalen J. Promotion, tenure, and teaching. *Acad Med* 1996;71:1277-8.
- Lubitz RM. Guidelines for promotion of clinician-educators. *J Gen Intern Med* 1997;12:Suppl 2:S71-S77.
- Bardes CL, Hayes JG. Are the teachers teaching? Measuring the educational activities of clinical faculty. *Acad Med* 1995;70:111-4.
- Humphrey HJ, Sorensen LB, Buehler BA. Institutional change: experiences in two departments. *J Gen Intern Med* 1997;12:Suppl 2:S79-S82.
- Carroll RG. Professional development: a guide to the educator's portfolio. *Am J Physiol* 1996;271:S10-S13.
- Ramsey PG, Carline JD, Blank LL, Wenrich MD. Feasibility of hospital-based use of peer ratings to evaluate the performances of practicing physicians. *Acad Med* 1996;71:364-70.
- Zyzanski SJ, Williams RL, Flocke SA, Acheson LS, Kelly RB. Academic achievement of successful candidates for tenure and promotion to associate professor. *Fam Med* 1996;28:358-63.
- Williams RL, Zyzanski SJ, Flocke SA, Kelly RB, Acheson LS. Critical success factors for promotion and tenure in family medicine departments. *Acad Med* 1998;73:333-5.

©1999, Massachusetts Medical Society.