Are We Preparing Residents for Their Actual Practices?

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The Accreditation Council for Graduate Medical Education (ACGME) establishes program requirements for US graduate medical education (GME) in all specialties. Carefully crafted, standardized requirements as well as associated GME clinical experiences are necessary for the development of resident physicians, as the "practice patterns established during graduate medical education persist many years later."[1] While these requirements are thoughtfully developed and revised, are they consistent with the actual practice patterns of physicians? Do areas of discordance exist between requirements and actual practice? How best to ensure the requirements reflect, in part, the actual practices that residency program graduates will enter?

One goal of residency training is to meet the needs of the population being served. An additional goal is to prepare residents for what they will do in practice. For instance, primary care training would necessitate a broad scope of practice to meet the first goal.[2,3] A resident's knowledge base may need to continually expand into a wide variety of new areas, while still including competency in the numerous existing ones expected for primary care.[3] However, a disconnect between the size of the aspirational knowledge base and what physicians actually do may exist. Some areas may never be encountered by the practicing physician, and so training in them may not be essential. Enhanced knowledge in these peripheral areas might best be addressed by fellowship training or continuing medical education.

Examining what practicing physicians actually do might provide a roadmap to distinguish necessary core knowledge and skills from elective or fellowship knowledge and skills. For example, practicing general pediatricians have increasingly relied on hospitalists to provide inpatient care for their patients, while residency training continues to require a minimum of 10 educational units (4 weeks or 1 month) of inpatient experience.[4,5] Similarly, at least one-third of internal medicine residency training must occur in the ambulatory setting, and at least one-third must occur in the inpatient setting. Yet, after graduation, general internal medicine physicians increasingly choose between providing inpatient or outpatient care exclusively, as is evident by the growth of the hospitalist movement that has exploded with over 50 000 physicians recruited to this new specialty since the mid-1990s.[6]

While only inferences can be made regarding residency training requirements versus actual practices of pediatricians and general internal medicine physicians, family medicine has more specific information available through the American Board of Family Medicine (ABFM) Graduate Survey.[7] For family medicine the misalignment between residency requirements and actual practice appears present in several areas. For instance, most recent graduates of family medicine residency programs report that their training has prepared them to practice in the areas of newborn hospital care, pediatric hospital care, and maternity care (86%, 73%, and 86%, respectively). Remarkably, less than a third of these physicians currently practice in these areas (23%, 19%, and 29%, respectively).[7] While numerous factors surely impact practice patterns that have created this division, the ABFM survey respondents noted *lifestyle considerations* and *not interested* were common reasons for not delivering babies or providing inpatient care for hospitalized adults.

Based on these findings, this issue regarding whether current training requirements for physicians are consistent with actual physician practices needs more in-depth review and analysis. Historically, family medicine is one of the few disciplines requiring such data gathering through a graduate survey. We believe it is time for all disciplines to carefully review actual practices of graduates and to use the information to continuously maintain up-to-date training requirements that more closely reflect and can potentially enhance the actual practice of physicians. While the ABFM proposes their survey will "enable educators to better understand key features of their graduates' clinical practice, practice environment, and satisfaction with their training," the information obtained will hopefully be used in the future to guide individual programs and accrediting organizations as they review and revise requirements.[7]

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Current Assessment Metrics: Necessary But Not Sufficient

Currently, residency programs are required to conduct an annual review for the purpose of evaluating and improving the program's teaching, scholarship, professionalism, and quality care.[1] The annual program evaluation is a form of "process" evaluation, designed to support ongoing improvement.[8]

Per the ACGME Common Program Requirements, the appointed Program Evaluation Committee must "review the program's self-determined goals and progress toward meeting them" and "guide ongoing program improvement."[1] To assess the program, the committee should consider using various elements, such as ACGME letters of notification, quality and patient safety reports, ACGME Resident and Faculty Surveys, resident milestones, and in-training examinations. Post-graduation measures such as specialty board certification pass rates may be used as an educational outcome for some residency training programs.[9]

Most, if not all, of the typical annual program evaluation measures focus on the training period. Thus, they do not measure variables such as whether graduating residents feel prepared to practice after residency, how well graduates meet quality of care metrics, and the impact of the graduate's practice on the overall health and well-being of the communities they serve. Outcome measures beyond residency training are needed to ensure that GME requirements are reflective of and improve current practices. An expanded Program Evaluation Committee review that includes graduates' experiences and current practices would assist programs in reviewing their goals, objectives, and curricula, beyond producing board-certified physicians. This broader systematic assessment should seek information about whether graduates' training addressed the health care needs of the patients and communities in which they serve and provide feedback to programs for curricular revision and enhancement. To generate this data, assistance from larger organizations such as specialty boards, payors of health care services, or accreditation bodies is needed.

Graduate Surveys by Individual Disciplines to Assess GME Outcomes: A Start

Historically, surveys of residency program graduates were conducted by individual programs or groups of programs in a particular state or region.[10-13] More recently, family medicine has nationalized graduate surveys through a partnership between the Association of Family Medicine Residency Directors and the ABFM.[14] Other disciplines should consider such a survey as an initial step toward an expanded view and assessment of residency training. To generate the necessary and comprehensive data and provide the needed funding to ensure success, organizations with a vested interest in the outcomes of residency training, such as accreditation bodies, payors of health care, and government agencies, need to actively participate as well.

Other GME stakeholders seemingly will benefit from a more comprehensive, postgraduate, publicly available evaluation of residency training. Individual programs can use the information to improve curriculum and resident assessments for specific subcompetencies and milestones.[15] For residency program applicants, survey information can be used to align their planned future practices with those of program graduates. For employers, a better understanding of the knowledge, skills, preparation for, and actual practice of graduates in a particular discipline will allow for better determination of the physicians needed to serve patients and patient populations. Finally, a more outcome-oriented evaluation will permit state and federal institutions that support GME financially to have a better understanding of the outcomes of these investments. Well-done assessments can be used to support new applications for residency program funding as the program graduates' satisfaction, practice patterns, and general match with the community may be followed.

In conclusion, improved concordance of GME requirements with actual practice of physicians is needed to align training with the core activities and services they will provide in practice. We need to know what physicians actually do. This alignment is not to suggest that residents should not be prepared to deal with a broad scope of patients and problems. Rather, a stratification of training topics into core and elective will use the limited curriculum and contact time in the most effective way possible. To this end, programs and accreditation bodies' requirements need additional data sources, such as a universal graduate survey, to ensure requirements meet the needs of all constituents, especially patients.

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