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Alliance for Academic Internal Medicine
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AAIM Perspectives

AAIM is the largest academically focused specialty organization representing departments of internal medicine at medical schools and teaching hospitals in the United States and Canada. As a consortium of five organizations, AAIM represents department chairs and chiefs; clerkship, residency, and fellowship program directors; division chiefs; and academic and business administrators as well as other faculty and staff in departments of internal medicine and their divisions.

Balancing Service and Education: An AAIM Consensus Statement

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The advent of the Next Accreditation System (NAS) by the Accreditation Council for Graduate Medical Education (ACGME) brought changes in the content and delivery of the annual resident survey,[1] most notably the importance placed on results in the annual review of programs. Prior to and since the implementation of NAS, program directors in several fields have expressed concerns about ambiguity in the survey, including definitions of "service" and "education" and what constitutes an appropriate "balance" between the two.[1-7] The 2012 Association of Program Directors in Internal Medicine Annual Program Director Survey revealed that the most common survey concern among internal medicine program directors was misinterpretation of questions by residents; the survey item most commonly cited was "service v. education."[1] Compounding this concern is the new method of survey delivery, which limits program director ability to clarify definitions or intent of questions prior to survey completion and from viewing specific questions afterward.[1] These changes were intended to ensure that responses were free from program director influence. Nonetheless, confusion about the definitions of service and education remain unaddressed.

After a review of the medical literature, the Alliance for Academic Internal Medicine (AAIM) formulated this consensus statement on the definitions of service and education. Our goal is for the medical education community to use this statement to inform discussions about curriculum both across and within programs and to assist in reaching mutual understanding among program directors, residents, fellows, and ACGME.

BACKGROUND

In its Common Program Requirements, ACGME requires that "The learning objectives of the program must … not be compromised by excessive reliance on residents to fulfill *non-physician* service obligations" (VI.A.4.b ACGME Common Program Requirements [emphasis added]).[8] Similarly, internal medicine-specific requirements mandate that program directors "ensure that the residency does not place excessive reliance on residents for service as opposed to education" (II.A.4.w, ACGME Internal Medicine Program

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Requirements).[9] The spectra of what constitutes service and education are not mutually exclusive and both are equally critical to physician education and practice.

As currently phrased in the ACGME resident survey, there is a perceived dichotomy in the terms, with service having a largely negative connotation and education having a largely positive one. We do not believe a strict distinction exists, but rather concur with Holmboe and Batalden's reframing as "service work."[10] Because of the current ACGME requirement language, however, we address them separately with context for these definitions. The authors call upon ACGME to restructure its language to reflect the important role for both education and service experience in graduate medical education.

PERSPECTIVES VIEWPOINTS

- Accreditation Council for Graduate Medical Education resident survey items about service vs education are ambiguous.
- The concept of service vs education creates a false dichotomy.
- Service is authentic to the role of a physician and part of practicing medicine.
- Deliberate practice in provision of patient care is crucial to active learning.
- Excessive reliance on residents for nonphysician activities may detract from education.
- This consensus statement further characterizes "service" and "education" to guide future discussions.

EDUCATION AND SERVICE

Learning the practice of medicine requires significant training in both content (ie, knowledge, technical skill) and process (ie, organization, communication). The process of making a diagnosis consists of multiple competencies, including history-taking, physical examinations, and gathering, interpreting and applying data to develop a differential diagnosis and treatment plan. Repetition in multiple and varying contexts is critical to acquisition of these skills and ultimately to demonstration of competence. Should this repetition be considered education (ie, deliberate practice) or service (ie, accomplishing a task)?[11] We believe the vast majority of graduate medical education is deliberate practice, because continuous repetition, guided by feedback, is required to achieve mastery.

A large and important part of graduate medical education occurs through active learning in the provision of patient care. Debriefing, reflection, and feedback are crucial for this type of education. Several common features define "education[5-7]:"

- Direct and indirect patient care provided by a trainee for his or her own patients
- Providing emergent services for any critically ill patient with an opportunity to debrief
- Patient-oriented teaching (including, but not limited to, teaching during rounds or precepting)
- Feedback on decision-making in patient care
- Repetition that supports achievement of cognitive or technical mastery
- Reflection and independent learning
- Patient care or other opportunities for which learning objectives are stated and met, feedback and evaluation is provided, and supervision is provided
- Having time for critical thinking in patient care
- Didactic and other conference sessions using various delivery methods, including in-person sessions, online modules, audiovisual recordings, and readings or writing assignments

Service, in the broadest and truest sense of the word, is the reason individuals feel called to a career in medicine. The idea of service captures the essence of the lives we have chosen as physicians — to serve our patients, one another, and society. Service is part of the practice of medicine and authentic to the role of a practicing physician. Service provides value to patients and populations because it is a critical component of sound patient care. Just as service is an expectation of practicing physicians, it should be considered an expectation of students, residents, and fellows. As educators, program directors, faculty, and other academic leaders should recognize the importance of service in professional training, while ensuring an appropriate balance between that service and the education required to attain competence in the profession.

To articulate the negative connotation of "service," we propose that it consists of common features that serve as a detriment to education and the purposeful endeavor toward mastery. Several common features that define service may occur to the detriment of education[5-7]:

- Repetition that does not contribute to the retention or refinement of technical skills (ie, without the opportunity for debriefing or reflection)
- Patient care activities that are neither direct nor indirect care for a resident's own patients
- Direct patient care includes history taking, performing physical examinations, writing orders, interpreting test results, performing diagnostic or therapeutic maneuvers or procedures, and educating and counseling patients
- Indirect patient care includes communication with other members of the care team or patient families; completing thorough, timely, and effective documentation; and performing safe and effective transitions of care

- A trainee's own patients include individuals whom they are "cross-covering," having received and delivered sign-out prior to and after care, and have available supervision for questions in care. Similarly, some programs may set up "cross-cover" mechanisms through which residents care for each other's continuity clinic patients under direct or indirect supervision of an attending
- Patient care provided by trainees for which they lack adequate training or supervision (eg, internal medicine residents providing postoperative care for primarily surgical issues)
- Nonphysician activities, such as booking follow-up appointments for patients, routine patient transport or phlebotomy; however, it is expected that occasionally, safe patient care may require physicians to perform them
- Systems that rely on residents to care for specific populations of patients to the detriment of training in the depth and breadth of the specialty
- Patient care activities not expected nor typically defined as a part of the curriculum (eg, internal medicine residents being asked to perform tracheostomy tube exchanges or retrograde urethrograms in radiology)
- An excessive patient load (accounting for number, turnover, and complexity) to the exclusion of critical thinking

Service can be educational even in the absence of formal teaching,[5] and service is expected of a practicing physician. Rather than dichotomous concepts, service and education in patient care should be viewed along a spectrum. While the extremes of this spectrum are relatively straightforward (administrative nonphysician tasks on one end and protected educational conference time on the other), we suggest that the true goal is to balance education and patient care (**Figure**).

Maintaining the balance between service and education is largely a programmatic concept that supports an appropriate learning environment. As such, this balance can work against individualized concepts, such as attainment and demonstration of individual competence. "The program director must … adjust schedules as necessary to mitigate excessive service demands" (II.A.4.j.3. ACGME Common Program Requirements).[8] Balancing service and education requires programs to customize learning experiences to meet the needs of individual learners and the collective learning environment. Programs should develop mechanisms to reduce excessive nonphysician service that detracts from education.

ILLUSTRATIVE EXAMPLES AND RELATED ACGME REQUIREMENTS

The interface between service and education is illustrated in several examples.

I. "The learning objectives of the program must … not be compromised by excessive reliance on residents to fulfill *non-physician* service obligations" (VI.A.4b ACGME Common Program Requirements [emphasis added]).[8]

Service and education are interwoven in the fabric of medical education; nonphysician activities are a thread apart from that fabric. Excessive reliance on residents for nonphysician activities may detract from education overall. Faxing, mailing, obtaining medical records, booking follow-up appointments, securing discharge placement, arranging patient transport, and administrative paperwork related to insurance or billing are not typical responsibilities of practicing physicians. When dictated by patient care needs, practicing physicians would and should perform these activities. Alternatively, some administrative activities are squarely in the purview of practicing physicians (peer-to-peer discussion for insurance authorization of patient care services or maintenance of one's own licensure and credentialing).

Improving inefficient systems represents another opportunity to improve the balance between service and education. Institutions should be expected to streamline administrative physician tasks performed in patient care, such as order entry, medicine reconciliation, and documentation. Logistical overhead for such activities may be needlessly burdensome and disproportionately borne by residents. Teaching hospitals must strive for system efficiencies to the same extent that nonteaching hospitals must.

Consistent with the expectations of practicing physicians and ACGME, nonphysician activities should not be a routine responsibility of residents, but may be performed by residents when needed for sound patient care. The internal medicine program requirements stipulate that "sponsoring institutions and participating sites must … provide the resources to ensure the implementation of … systems to prevent residents from performing routine clerical functions, such as scheduling tests and appointments, and retrieving records and letters" (I.A.2.h.1, ACGME Internal Medicine Program Requirements).[9] Sponsoring institutions should have a system to ensure that nonphysician functions (such as booking appointments, phlebotomy, placement of noncomplicated intravenous lines, measuring vital signs, and bathing patients) are routinely performed by nonphysicians. Practicing physicians or residents may infrequently need to perform such activities for the delivery of sound patient care or when nonancillary providers call upon them for assistance. It is important to note that there may be an expectation of physician proficiency in certain activities and thus, they have educational value (eg, the American Board of Internal Medicine requires proficiency in drawing venous blood and in placing intravenous lines as criteria for board eligibility).

Supports Education	Supports Service
Patient Care, Practice Based Learning and Improvement, and Interpersonal and Communication Skills	
Delivery of care to one's own or the team's patients	Routine delivery of care for issues outside the scope of the specialty
Provision of emergent services commensurate with resident training and role	Provision of emergent services without requisite knowledge, skill, or supervision
Level of supervision that is appropriate to patient complexity, resident ability, and professional expectations	Supervision that does not account for patient complexity, resident ability, and professional expectations such that either patient safety or resident autonomy is routinely compromised
Debriefing or feedback on performance and decision-making	Debriefing or feedback occur sporadically, out of context, or with insufficient detail to allow for meaningful reflection and growth
Repetition that contributes to the retention or refinement of knowledge, skills or attitudes	Repetition that reinforces incorrect or undesirable knowledge, skills, or attitudes
Medical Knowledge	
Curricula that prepare residents for the patient care routinely provided within the program and specialty	Curricula that either are not implemented or not meaningful to the specialty
Dedicated time and resources for educational sessions or assignments	Educational sessions or resources are routinely inaccessible to residents
Patient-oriented teaching (e.g. morning report, daily rounds, telephone discussions)	Patient-centered discussions occur infrequently or out of context (e.g. at times remote from the care provided)
Professionalism and Systems Based Care	
Patient case load (number, turnover, complexity) optimal for the development of critical thinking, skill acquisition, formation of professional identity, and wellness	Patient case load (number, turnover, complexity) that may reasonably be expected to conflict with goals of high quality patient care or result in burn out
Defined roles and responsibilities for health team members, with routine availability of patient support services and other health care professionals to facilitate or deliver patient care	Routine performance of non-physician tasks (e.g., booking appointments, phlebotomy, transport, obtaining prior authorizations, copying or faxing)
Systems of care that support routine interactions with a breadth and depth of patients and patient concerns representative of those encountered within the specialty	Systems that rely on residents to focus on the care for specific populations of patients to the detriment of training in the depth and breadth of the specialty

Figure Spectrum of education and service.

II. "The faculty must: a) devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities, and to demonstrate a strong interest in the education of residents; and b) administer and maintain an educational environment conducive to educating residents in each of the ACGME competency areas." (II.b.1.a and b. ACGME Common Program Requirements)[8]

Educational experiences in direct patient care involve interviewing patients and caregivers, examining patients, ordering and interpreting diagnostic studies, discussing patient cases with attending physicians including changes in clinical status, ordering, or performing therapeutic interventions, and counseling and educating patients and caregivers.

Educational experiences in indirect patient care involve oral case presentation, written documentation with the opportunity for feedback, communication with other members of the care team, and performing safe transitions of care.

Residents must be given progressive responsibility for and active participation in patient care with the opportunity to discuss clinical reasoning and rationale for care decisions made by other physicians. Residents should not simply enter orders that are dictated by others. To this end, the requirement that "residents must

write all orders for patients under their care, with appropriate supervision by the attending physician" (I.a.2.h.6.g. ACGME Internal Medicine Program Requirements)[9] does not justify an attending physician simply leaving a list of orders to be entered by residents if there is no opportunity for discussion of rationale.

III. "Residents must be able to competently perform all medical, diagnostic, and surgical procedures considered essential for the area of practice." (IV.A.5.a.2, ACGME Common Program Requirements)[8]

The retention and refinement of technical skills requires repetition. Training in the procedures appropriate for one's field always has educational value, provided the resident has the opportunity to read about procedural indications, contraindications, and complications, to debrief with a supervisor on his/her performance of the procedure, and to seek clarification on findings.

IV. "For the resident, the essential learning activity is interaction with patients under the guidance and supervision of faculty members who give value, context, and meaning to those interactions." (ACGME Common Program Requirements, introduction)[8]

Nonprocedural activities that are necessary for care (eg, history-taking, performing physical examinations, placing orders, writing patient notes, composing discharge instructions and summaries) define the clinical care of a patient. These activities have educational and patient care value, and should not be deemed service to the detriment of resident education. If, however, residents are busy to the exclusion of critical thinking about diagnostic and management issues or attendance at educational conferences, it impedes the achievement of the learning objectives of the residency program.

In an attempt to define workload quantitatively, the internal medicine program requirements include strict caps on the number of patients a resident may admit in a 24-hour period and the number of patients for whom a resident may be responsible in ongoing care. We call upon ACGME to revisit this cap; patient care in the current era of electronic medical records, increasingly complex diagnostic and therapeutic possibilities, rapid patient throughput, and increasingly detailed documentation requirements have decreased physician minutes at the bedside and increased minutes at the computer screen.[12,13] This "revisiting" could consist of lowering caps or considering flexibility in caps to accommodate complexity of patients and level of training. For the performance of patient care to retain maximal educational value, it must be coupled with time for reflection and the ability to discuss and clarify salient points with supervising physicians.

V. "Residents' service responsibilities must be limited to patients for whom the teaching service has diagnostic and therapeutic responsibility. (N.B.: "teaching service" is defined as those patients for whom internal medicine residents [postgraduate year 1, 2, or 3] routinely provide care." (I.A.2.h.2, ACGME Internal Medicine Program Requirements)[9]

Many internal medicine residency programs utilize night float or other cross-coverage systems to provide safe, around-the-clock patient care. Responsibility for patient care shifts to cross-covering physicians; thus, residents should consider patients for whom they are cross-covering their own patients. Cross-coverage is an educational activity when a resident receives sign-out at the time they assume care of the patient, gives sign-out when they are no longer the patient's primary caretaker, has the opportunity for feedback, and has at least indirect supervision from a supervisor to discuss clinical events that occur for the patient.

Consistent with the internal medicine program requirements, residents should not be assigned cross-cover for patients outside of their scope of practice (eg, patients on nonmedicine services). It is important to note that providing emergent services for *any* critically ill patient, even one for whom a resident is not cross-covering, with an opportunity to debrief, represents an important educational opportunity and supports the development of professionalism. Although ACGME does not explicitly cap the number of patients for whom a resident may cross-cover, the census and volume of care should allow for safe patient care and allow time for reflection and the opportunity for discussion with supervising physicians.

STRATEGIES FOR EDUCATORS

Educators may utilize teaching strategies to explicitly increase the education occurring during times of service-education overlap, such as:

- Modeling optimal communication and bedside manner during real and simulated patient encounters with debrief opportunities
- Finding "teachable moments" in every patient encounter, including asking "what if" questions in patient care scenarios that may be repetitive or straightforward
- Maximizing "face time" with trainees[6]
- Thinking and performing purposeful reflection aloud to make clinical reasoning or procedural steps transparent for residents
- Periodically asking trainees what they have learned thus far on the rotation
- Giving residents immediate feedback on patient care and decision-making[6]
- Emphasizing the meaningfulness of the work for patients and physicians[10]
- Reminding residents that indirect patient care is training for a skill needed in their future careers and that communicating with others is a skill-building opportunity[6]

CONCLUSION

After their survey of internal medicine program directors, Adams et al[1] suggested that program directors may feel added pressure in NAS because "unpopular rotations may make for better physicians in the long run if educationally justified, but may be misinterpreted by trainees as providing 'service versus education'"[1] and therefore may not be implemented, to the detriment of resident education. We hope program directors will use this consensus statement to support the educational missions and inform resident assessments of service and education.

Despite viewing changes in NAS as negative, the majority of internal medicine program directors agreed the ACGME resident survey is a useful tool for negotiating with their institutions for more resources, including hiring more physicians, other health professionals, and administrative staff; obtaining additional resources to decrease service demands; and obtaining improved information technology resources.[1] AAIM hopes that establishing agreement between program directors and residents on the definitions of "service" and "education" will result in more accurate responses by residents to the "service versus education" survey question. We recommend that program directors leverage these results as needed to achieve appropriate educational goals for their programs.

NEXT STEPS

We call upon ACGME to restructure its use of the terms "service" and "education" to better illustrate that providing service is the duty, calling, and pride of physicians. Providing service should be viewed as part of learning and practicing the profession of medicine. Medical education requires reflection, debriefing, feedback, and time for critical thinking. Excessive expectation to conduct activities not in the usual sphere of physician practice detracts from the achievement of program learning objectives and should be avoided. We hope for a future in which we do not teach our residents and fellows how to distinguish between good and bad service, but instead focus on sharpening skills as educators to ensure that we successfully and simultaneously provide service to our patients and quality medical education to our learners.

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