



Highlights From ACADEMIC MEDICINE

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Do Nonteaching Services Affect Patient Mix?

The volume and complexity of inpatients in teaching hospitals have increased substantially, and there has been increased emphasis on outpatient resident training and limiting resident duty hours. In response to these factors, many teaching hospitals have created nonteaching services (NTSs), some of which employ midlevel providers (MLPs) such as nurse practitioners or physician assistants to take over the traditional resident's role. Alec B. O'Connor, MD, MPH, and colleagues wondered whether this would lead to patient-selection pressures causing teaching services to treat patients who are sicker and carry different diagnoses from the pool of all patients admitted to the hospital. Therefore, they sought to quantify the differences between the patients on the teaching services and the NTSs.

The researchers conducted a retrospective cross-sectional analysis of data from general medical hospital admissions to two hospitals over a six-month period. They found that compared with the NTS patients, patients on the resident service had higher Charlson Comorbidity Index (CCI) scores, more comorbidities, longer lengths of stay, and higher operating costs, and were more likely to receive intensive care and to die in the hospital.

Compared with the NTS providers, residents were more likely to care for patients with principal diagnoses of acute renal failure, respiratory failure, septicemia, and HIV, and were less likely to care for patients

with pneumonia, chest pain, cellulitis, intestinal obstruction, diverticular disease, alcohol withdrawal, abdominal pain, and sickle cell crisis.

The authors conclude that an NTS can be associated with a training–practice gap. Adjusting for baseline differences in patient demographics and acuity could result in more similar patient outcomes.

O'Connor AB, Lang VJ, Lurie SJ, Lambert DR, Rudmann A, Robbins B, Bordley DR. *The effect of nonteaching services on the distribution of inpatient cases for internal medicine residents.* Acad Med 2009;84(2):220–225.

Hospital Rankings as a Measure of Quality

One of the goals of the ACGME's Outcome Project is to demonstrate a relationship between educational and clinical quality, highlighting the importance of the attributes of the learning environment to the professional development and the attainment of competence for independent practice. One major question arising from this goal is whether programs with better clinical outcomes produce superior graduates. Ingrid Philibert, PhD, MBA, looked at *U.S. News & World Report's* "America's Best Hospitals" ranking to determine whether these measures can be indicators of educational quality of graduate medical education programs.

The author searched the literature for evidence that the data elements included in this ranking are valid indicators of health care quality, and then examined these data elements to assess the extent to which they included accepted measures of clinical performance.

The analyses showed that institutions included in "America's Best Hospitals" outperformed comparison institutions, with improved performance in clinical

dimensions and in the limited reporting attributes linked to the learning environment for resident physicians. The author notes, however, that ranked institutions' greater renown may allow them to be more selective in recruiting residents, with better outcomes resulting from this factor rather than from a superior learning environment. She also points out that from an educational perspective, the rankings do not include information on teamwork, reflective practice, or efforts to use data to improve clinical quality—concepts that are considered crucial to the education of health care providers.

The author states that establishing a national dataset on clinical and educational quality will require research to refine the measures of educational achievement and performance in practice. This would also realize the aim of the Outcome Project of finding means of effectively linking quality in resident education and practice.

Philibert I. *Can hospital rankings measure clinical and educational quality?* Acad Med 2009;84(2):177–184.

Assessing Stress Among Physicians, from Interns to Attendings

Stress in health care providers may arise from a number of provocations, including frequent intense interactions with patients with complex problems, stressed interactions with colleagues, and fatigue. Persistent stress is a significant contributor to burnout and resultant absenteeism and performance deficits. Furthermore, physician stress and emotional exhaustion reciprocally increase each other.

The current extent and causes of resident stress in the hospital workplace are not known. Therefore, Erin R. Stucky, MD, and associates used Ecologic Momentary Assessment (EMA) methodology to assess physicians' perceptions of the stresses of the workplace environment. EMA can include real-time measurements of stress, fatigue, and perceptions of workload.

Study participants included internal medicine and pediatric housestaff, traditional

attending physicians, and hospitalist attending physicians at four large core training sites. The investigators used EMA techniques by using a survey tool designed for a handheld computer. They assessed such factors as specific daily information, multiple work activities, sleep quality, and emotional stress.

The researchers found that poorer sleep quality and larger total patient loads were significantly associated with higher stress. Interns reported the highest stress scores; attendings reported the lowest stress scores, despite greater patient loads. The percentage of time spent in work activities was similar across all levels. Of the workplace factors, only total patient load was associated with increased stress; furthermore, increased stress was significantly correlated with sleep quality.

The results of the study suggest the need for further assessment of the maximum number of patients assigned to house staff. Educators and practitioners should both teach and practice stress recognition and management techniques.

Stucky ER, Dresselhaus TR, Dollarhide A, Shively M, Maynard G, Jain S, Wolfson T, Weinger MB, Rutledge T. **Intern to attending: assessing stress among physicians.** *Acad Med* 2009;84(2):251–257.

Was This Anatomy Book Pornographic?

Medicine is fundamentally a social activity that occurs in the context of social mores and customs. There is rarely a consensus about how to display the human body for anatomical education; furthermore, mutual respect between student and teacher is an essential element of education, and teachers must be mindful of the risks of imposing their views on students. Edward C. Halperin, MD, MA, uses the example of a controversial anatomy textbook to drive home these ideas.

The introduction of a new curriculum at Duke University School of Medicine in 1966 radically reduced the number of hours allocated to the study of anatomy. Disgruntled faculty members began offering “rump courses” in addition to the regular

anatomy curriculum, saying that students needed additional preparation, which possibly encouraged student dissatisfaction as well. One of the unhappy faculty members was Professor R. Frederick Becker, who, with two colleagues, James S.W. Wilson, MD, PhD, and John A. Gehweiler, MD, developed a new textbook that emphasized surface anatomy, embryology, and radiology, and hoped to create a book with a clinical emphasis.

In 1971, they published *The Anatomical Basis of Medical Practice*. The book was organized by body regions, following the sequence of clinical examination from the surface to the limbs. The authors sought to “use anatomy as a stepping stone to all of medicine,” and placed a heavy emphasis on radiology and clinical correlations. They said that they wrote the book in “an easy-going, literary style.” However, this “style” also included suggestive comments about women, and many of the illustrations in the book were of the stylized, posed type used in men’s magazines. Not surprisingly, controversy arose as soon as the book was purchased, read, and circulated. Although the authors viewed their text and photographs as being witty, engaging, and funny, many others saw them as outdated, and even pornographic, denigrators of women. Dr. Estelle Rainey, president-elect of the Association of Women in Science, denounced the book as “an obscene denigration of women” and called for a boycott. Although some claim that the book was withdrawn, the publisher says it allowed the first edition of the book to sell out and issued no reprints or further editions.

The author notes that the conflict over this book’s publication illustrates the evolving attitudes of the 1960s and 1970s concerning the definition of pornography and changing attitudes about acceptable behavior on the part of anatomy faculty and of the medical profession in general.

In a commentary on this article, Sharon K. Hull, MD, MPH, asks what one can learn from this anecdote. She discusses the history of feminism and the current “third wave” of the movement, which arose at the end of the 20th century.

She points out that women in the third-wave group tend to choose nonconfrontational approaches to sexual harassment and discrimination, in the belief that confronting or reporting the behavior will not change it, whereas Dr. Rainey and her generation were more active in their fight against this book. Dr. Hull feels that it is important to remember that the threat of retaliation is not gone, and the price of speaking up remains high. Therefore, she says, it is important to read this article and to remember that violations of professional mores between teachers and students still occurs, and learners still find it difficult to speak up about such behavior.

In another commentary, Ann E. Thompson, MD, notes that “it is valuable to be reminded that what we now take for granted was once actually controversial and brushed off as coming from a bunch of ‘immature,’ ‘kooky dames.’” She feels that Dr. Halperin’s essay should be welcomed as an impetus to be alert for similar issues in present times, whether they are already a matter of controversy or are yet barely recognized. In addition, Dr. Thompson points out that when students are learning anatomy, they must learn to look closely at and touch parts of the body that are considered private; at the same time, they must learn to be aware of their own feelings without acting on them. The language of the controversial textbook raises questions about whether the authors fully respected the magnitude of this task—or whether they had successfully completed it themselves. Dr. Thompson states that an analysis such as Dr. Halperin’s can help to raise awareness of inappropriate behaviors and biases and to create strategies for resisting them.

Halperin EC. **The pornographic anatomy book? The curious case of *The Anatomical Basis of Medical Practice*.** *Acad Med* 2009;84(2):278–283.

Hull SK. **Commentary: Knowing it when we see it: reflections on pornography.** *Acad Med* 2009;84(2):155–156.

Thompson AE. **Commentary: Those who do not learn from history are doomed to repeat it.** *Acad Med* 2009;84(2):157–158.