LETTER FROM THE USA

Does a doctor's overwork lead to error?

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I remember feeling sleepy while holding retractors during long operations during residency in Mumbai and later in the USA in the early 1990s. The Accreditation Council for Graduate Medical Education in the USA recently implemented strict regulations that would prohibit residents working more than 80 hours per week and more than 24 hours at a stretch. Recently, a prestigious internal medicine residency programme at Johns Hopkins Medical School lost its accreditation for violating this rule. The proposed regulations argue that house staff fatigue is responsible for physician error, ill-health and lack of compassion for patients. Critics point to how these affect the goals of house staff training—the development of accountability and responsibility. The terms 'house staff' and 'resident' were coined based on the fact that residents are always on duty and available for care of the patients.

Similar regulations were introduced in New York State in 1987 after a young woman, Libby Zion, died while on medical service. The Bell Commission concluded that the on-call resident's sleep deprivation and inadequate supervision by her attending physician contributed to the tragic outcome. A more recent report from the Institute of Medicine concluded that many deaths in hospitals are due to medical error. Most studies find that the prevention of error in hospitals, factories, cockpits, etc., is far more effective when *systems* rather than *individuals* are the focus of corrective measures. However, at a time when evidence-based medicine is being preached, it is still not proven that limiting duty hours reduces physician error.

Hospital medicine is an intense '24/7' experience in the USA. The pace of activity barely slows down during the evening in teaching hospitals. Doctors face constant pressure, driven by current health care economics, to reduce the length of the patient's stay by tightly scheduling diagnostic procedures and therapeutic interventions.

The duration of medical training can be as long as 12 years with long working hours, relatively low pay and great physical, emotional and intellectual demands. Medical education and patient care are inextricably interwoven and take place at the bedside. Both patients and residents have the same anxieties and uncertainties, now compounded by a flood of web-based information and new technological data gathering. Shift work makes patients 'to do' items on the resident's list. It breaks down the narrative flow of a patient's illness. The reason why medicine is taught at the bedside in the Oslerian manner is to understand the difference between disease and illness. Atul Gawande has stated that the 'culture of medical education...entails a delicate balance between initiative and supervision'. Doctors will master the science but may not understand the human being.

Solutions

Three things seem certain. The limitation on duty hours will not go away; indeed, it may become more stringent. We have to devise strategies that will reconcile the tradition of high-quality, science-based medical care with satisfying the needs of both patients and physicians. We need to closely examine the apparent 'disconnect' between medical education and medical care. We need to come up with innovative and effective approaches to reconcile these competing needs.

Medical educators must debate the timing or necessity of limiting duty hours. Is there a difference between work and duty? Is a house officer a trainee or worker? There are possible solutions already in effect in some programmes. Many training programmes have instituted 'night float teams' and other variations of a shift system.

Information technology is a two-edged sword. Patients are unsettled by computer-generated summaries, by shunting between day teams and night teams who defer important diagnostic studies or treatment, duplicate them, or worse, commit errors as a result. Lack of communication is the single most common complaint patients have about their physicians. I worry that duty hours would worsen this as the key component of medical education—the acquisition of large scientific information and development of accountability and responsibility—would be affected. As H L Mencken wrote, 'For every complex problem there is simple solution. And it is always wrong.'