EDITORIAL

Resident-Physicians’ Duty Hours: Perceptions and Cultural Expectations in Medicine

Brian H. Foresman, DO

In the summer of 2003, the American Osteopathic Association (AOA) and the Accreditation Council for Graduate Medical Education enacted a requirement to limit duty hours for medical interns and residents. This action took place after an accumulation of scientific evidence demonstrated that sleep deprivation was adversely affecting physician performance.

Many programs and institutions feared that they would see a decline in the quality of their training programs vis-à-vis a reduction in the number of clinical experiences available to medical interns and residents as a result of the imposition of the duty-hour restrictions. Early anecdotal reports indicated that faculty and resident-physicians were responding to the proposed change in duty hours with similar concerns, but the anticipated adverse impact on medical training has not come to pass.

The medical education article published in the current issue of JAOA—The Journal of the American Osteopathic Association by Zonia et al (Zonia SC, LaBaere RJ, Stommel M, Tomaszewski DD. “Resident attitudes regarding the impact of the 80-duty-hours work standards.” J Am Osteopath Assoc. 2005;105:307-313) is one of the first studies to explore the responses of medical residents to the duty-hour restrictions. This article is of particular interest as it reflects a changing cultural norm within the practice of medicine.

The initial resistance felt within the medical profession to limiting resident duty hours was wholly uncharacteristic of this particular “population,” from a certain point of view, in that the response was not what one would intuitively assume based on the evidence presented; in fact, the response was directly counter to the available scientific and medical evidence.

For a number of years, data originating with research done by the airline industry and the military demonstrated that prolonged duty operations, defined as “active work exceeding 14 hours per day” or “more than seven days of continuous work,” were associated with increased errors—even in individuals who were well adapted to such strenuous work schedules. There was no reason to suspect that medical personnel would respond differently.

More recent studies of medical residents have demonstrated pervasive sleepiness and an inability to accurately self-assess levels of sleepiness. Recent data by Papp et al reported that 34% of residents experienced acute sleep deprivation; 64% were chronically sleep deprived; and most admitted “possibly dozing” while writing notes (69%), reviewing medication lists (61%), and assessing laboratory reports (51%). Data comparing survey-based assessments of sleepiness against multiple sleep latency testing demonstration...
strated an inability in medical residents to assess accurately their physiologic sleepiness.1

Research under simulated conditions has shown increases in diagnosis and performance errors,2,3 and in time for task-completion (eg, laparoscopy, interpretation of electrocardiogram results, arterial line insertion),4 as well as less thoroughness in physical examinations provided to patients,5 and poorer results on medical board examinations.6,7

Other studies have shown that sleep deprivation may entail personal risk to resident-physicians and their patients. Risk of driving accidents,8,9 exposure to blood-borne pathogens,10 and adverse events during pregnancy14 have all been reported. In fact, when these duty-hour restrictions were under discussion in 2002, the AOA’s editor in chief, Gilbert E. D’Alonzo, Jr, DO, shared a personal story with JAOA readers from his time as an intern at Detroit Osteopathic Hospital in Highland Park, Michigan (“Long nights a long time ago [editorial].” J Am Osteopath Assoc. 2002;102:467. Available at: http://www.jaoa.org/cgi/content/102/9/467). In this editorial, Dr D’Alonzo relayed how he dozed off while driving home after “being on-call for a long time.” He awoke to discover himself driving off the road and onto an expressway embankment. It is unfortunate that such adverse—and potentially life-threatening—effects are so often either not recognized or are not acknowledged by those in training.

The current study by Zonia et al investigates the perceptions of residents to the application of duty-hour restrictions in several hospitals in the Detroit-metropolitan area. Zonia et al designed a survey to assess medical resident perceptions of the possible implications of the 80-duty-hours work standards for their training programs. The study’s most interesting results revealed a clear difference in the perceptions of resident-physicians to the duty-hour standards when those results were analyzed by medical specialty, with those in general surgery strongly differing in opinion from those in the other medical specialties represented by survey respondents (ie, family medicine, internal medicine, and obstetrics and gynecology).

Surgically based medical residents express more resistance to the imposition of duty-hour restrictions on their training programs than do medical residents in other training programs. I would suggest that this difference of opinion on the duty-hour standards may be the result of the particular demands of this specialty practice and the manner in which surgical residents are trained—a form of cultural milieu.

In surgical care, issues related to the continuity of patient care and obtaining sufficient exposure to educational opportunities (ie, the number of surgical procedures performed) were commonly cited as being adversely impacted by the 80-duty-hours work standards. This negative perception among surgical resident-physicians is in contrast to respondents in medical specialties where the operational training demands are more cognitively based.

As was most appropriately noted by Zonia et al, the differences in perception between the sexes about the duty-hour restrictions is probably an actual difference between the sexes and is not likely to reflect systemic problems with training programs and duty hours. Such data suggest that reluctance to embrace duty-hour restrictions, though supported by several valid concerns, may in fact be representative of a different problem.

The current study and other data begin to suggest that it is perhaps cultural predispositions within the medical-training model—not the available and overwhelming medical and scientific evidence—that cause some clinicians to hold tight to the belief that longer hours represent better training.

References