

Virtual Mentor

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PERSONAL NARRATIVE

Through the Physician's Eyes: Rational Work Scheduling for Residents

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Systematic sleep deprivation is a dangerous anachronism in graduate medical education. Continuous work periods of 30+ hours every 3rd or 4th night for months at a time are scheduled in most residency programs and are most frequent in general surgery, surgical subspecialties, OB/GYN, pediatrics, and internal medicine residencies. Rigorous evidence from prospective, controlled trials and well-designed observational studies has documented harm to residents and patients from this practice, and has been reviewed and synthesized in the articles cited below.^{1,2} No such high-quality evidence demonstrates a benefit for patients or residents from sleep deprivation. Other evidence from aviation, trucking, and the nuclear power industries supports shift length limits as a proven safety measure for employees and the public.

Recent policy pronouncements by the American Medical Association (AMA), the Accreditation Council for Graduate Medical Education (ACGME), and legislation introduced in the U.S. Congress seek to address this issue by limiting weekly work hours and prescribing elimination of the most egregious scheduling practices. The 3 proposals are similar in recommending a maximum 80-hour work week (in line with existing limits in New York state), requiring one day off per week, and limiting overnight call to no more frequently than every third night. In addition, all three plans permit continuous work periods of 24 hours, and in the case of the AMA and ACGME up to 30 hours of work with no protected time for sleep. This is where all of these policies fail to protect the health and welfare of the employed resident physicians and their patients.

Patient care and medical education cannot be accomplished safely, efficiently or effectively by sleep-deprived residents. Resident physicians and the public must demand rational work scheduling to maximize patient safety and improve the quality of medical training. The model of the lone practitioner providing continuous care for patients has outlived its usefulness. Teamwork is the paradigm for medicine in 2002 and the future. Most other industries have embraced teamwork because of long experience with the higher quality and greater efficiency of teams compared to individuals working alone.

Medical educators and attending physicians who are responsible for resident physician training and supervision must seize this new paradigm and lead interdisciplinary teams in providing optimum patient care and promoting wellness

and professionalism in practitioners. Rational shift length limits within this new model are 16 hours for most physician work and 12 hours in high intensity areas such as emergency departments, critical care units, operating rooms, and labor-and-delivery suites. Of course, exceptions may be permitted in the event of a disaster or other unexpected event, but not allowed to occur on a regular basis. These limits provide for daily, protected sleep, the opportunity for interaction with family and friends, and other health promoting activities. This scheduling will also raise resident productivity and learning, eliminating any need to increase resident numbers or residency length, as suggested by defenders of the status quo.

Now is the time to cast off out-dated thinking about medical education and resident physician work scheduling. Traditional professional organizations, such as the AMA and ACGME, are still allowing irrational, harmful practices, and the federal government is following their lead. New leaders must step forward to take on the challenge of designing the medical profession of the future, a profession where quality, safety, and health are paramount. Much of the recent work to change scheduling practices has been done by medical students and residents. As these people advance in their careers they are the natural candidates for such leadership. However, established academic and community physicians must also join this effort for reform to occur.

References

1. Green MJ. What (if anything) is wrong with residency overwork? *Ann Intern Med.* 1995;123(7):512-517.
2. Heins A, Euerle B. Application of chronobiology to resident physician work scheduling. *Ann Emerg Med.* 2002;39(4):444-447.

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