For decades, it has been recognized that medical residents’ long work shifts pose a risk to patient safety, quality of care, and physician health. These problems, and the impact of rules limiting work hours, have often been studied, but mixed results have been reported.1 The survey research conducted by Kate E. Hughes, DO; Patrick G. Hughes, DO; and Mary J. Hughes, DO,2 published in this issue of The Journal of the American Osteopathic Association, adds new details about the well-being, sleep habits, and duty hour reporting behavior of osteopathic residents working under these rules.

The findings are not surprising: of 128 osteopathic emergency medicine residents surveyed, few reported 8 hours of sleep per night, most reported weight gain or loss, only between 20% and 40% exercised regularly, and more than 40% met the clinical criteria for disordered sleep.2

While these findings don’t reflect well on the health of physicians, such habits are likely not much different for residents in other specialties, busy professionals in other fields, or the US population in general. Centers for Disease Control and Prevention data from 2014 indicated that only 35% of US adults got the recommended 7 hours or more of sleep per night.3 A 2015 Gallup poll showed that 42% of US adults are sleeping less than 7 hours per night.4

Sleepiness is clearly of greater concern for medical professionals making life and death decisions. However, the issue of resident workload and fatigue has been systematically addressed over the past 3 decades. Following 1988 recommendations from an ACGME task force, an 80-hour work week limit, averaged over 4 weeks, was implemented in 1989 and adopted by several specialties over time. Common duty hour requirements across specialties were established in 2003, with further updates and revisions in 2008, 2011, and, most recently, in 2017.

Hughes et al2 also address the question of compliance with requirements limiting work hours. It’s good that 84% of residents surveyed reported that their program had a policy of strict duty hours enforcement. Still, 17% said they had ever been asked to modify their reported hours and 56% had ever done so voluntarily to avoid a violation. There are many possible reasons why residents might misstate their work hours. Some may extend their shift out of dedication to patients, yet not report the hours to protect their program, as reported by Byrne et al.5 In the study by Hughes et al,2 it’s difficult to draw strong conclusions, as nearly a quarter of respondents did not answer the questions about duty hours.

Although most respondents (71%) reported using a chemical aid (medication [prescribed or illicit], alcohol, energy drinks, or coffee) to stay awake or fall asleep, use varied widely. Ten percent said they used such aids daily, but 29% never used them; the mean use was 6.9 days per 4-week rotation.2

It is important to note that this study surveyed residents in 2014. Since then, attention to these issues has continued to increase, and the ACGME has further modified duty hour standards. Those changes, effective July 1, 2017, were designed to stress patient safety, team-based care, and physician well-being. The total number of clinical and educational hours for residents did not change, but standards allowed more flexibility to schedule and manage clinical, educational, and nonpatient activities within allowed hours. The changes made both programs and institutions responsible for prioritizing physician health.6

The 2017 changes also loosened the 16-hour work limit for first-year residents, returning them to the same 24-hour cap as other residents, with a
4-hour period to manage transition of care. Evidence gathered since the first duty hour restrictions were implemented supported this move. One systematic review\(^7\) of the impact of limiting work hours for first-year residents revealed no systemic improvement on patient care or resident wellness, but residents felt busier and less able to take time for educational conferences. Another systematic review\(^8\) reported that among surgical programs, limiting hours had a negative impact on patient outcomes and certification examination performance.

Clearly, there is a balance to be achieved between reducing hours to protect patients and physicians while maintaining a high-quality educational experience. As Ludmerer\(^9\) wrote nearly 10 years ago:

> The regulation of working hours, in short, does not address the larger and more fundamental issue of working conditions. … The lesson for today is that GME must be judged by the total experience and not by the hours of work alone. Medical educators need to pay attention to what residents do with their hours, not merely how many hours they work. It is crucial that professional leaders understand this point if GME is to be made better and if doctors and patients in the future are to be better served.

And, as Hughes et al\(^2\) point out, there are other sources of stress and sleepiness in the lives of busy physicians in emergency medicine or any other specialty. The latest ACGME standards and the focus on optimizing the time spent on shift will help programs and residents themselves be more cognizant of external stressors and manage those stressors better.

The study by Hughes et al\(^2\) opens up valuable lines of additional inquiry. The sample size is small, 70% female, and drawn from residents across programs in a single medical system. It would be useful to know how sleep patterns, health habits, and motor vehicle accident prevalence compare to those of residents in other specialties and the population in general, and how these patterns change throughout residency and into practice. (doi:10.7556/jaoa.2018.117)

References

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