Neurosurgery Training at the Crossroads: Duty Hour Regulations, Professionalism and Dishonest Behavior

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EDITORIAL

In 2003, the Accreditation Council for Graduate Medical Education (ACGME) enacted duty hour regulations limiting resident physician shift length to 30 hours of continuous duty along with a maximum of 80 work hours per week [1]. In 2008, the Institute of Medicine (IOM) Committee on Optimizing Graduate Medical Trainee Hours and Work Schedules to Improve Patient Safety released a report proposing additional restrictions to resident duty hours [2]. Prior to the release of these IOM recommendations, Grady et al. presented a report highlighting concerns about the impact of duty hour regulations on neurosurgical training, which was approved by representatives of 3 leading neurosurgical organizations: the Society of Neurological Surgeons, the American Board of Neurological Surgeons, and the Residency Review Committee for Neurological Surgery [3]. Among the concerns voiced by these authors, a negative impact on resident education and competency at graduation as well as diminished patient continuity of care were noted. The report concluded that ACGME standards must find a balance between adequate hours for resident education and the mastery of complex skills necessary to perform neurosurgery, while minimizing errors due to fatigue, or else patient care or resident education would suffer. Similarly, the American Board of Surgery argued that the IOM recommendations did not consider the potential consequences on resident education and pointed out that both surgeons and individuals directly involved with resident training were absent from the committee [4].

To address the 2008 IOM recommendations, the ACGME convened a task force to revise the 2003 Common Program Requirements. This committee, the Task Force on Quality Care and Professionalism, proposed revised duty hour standards which were implemented in July 2011 [5]. The main changes in the 2011 regulations were the reduction of intern shifts to a maximum of 16 consecutive hours, precluding the possibility of 24-hour overnight call, and the reduction of post-graduate year (PGY) 2 or greater shifts to 28 consecutive hours.

Prior to the implementation of the 2011 ACGME duty hour standards, we surveyed the American neurosurgery resident population regarding the predicted impact of these changes [6]. A total of 377 residents replied, accounting for nearly one-third of all neurosurgery residents under the purview of the ACGME in the United States and Puerto Rico. Over one-third of respondents reported violating the 80-hour rule occasionally or frequently (36%). Thirty-one residents (8%) reported involvement in a motor vehicle collision or life-threatening event and 20 (6%) reported making a medical error resulting in patient harm after an extended shift. The vast majority of residents (83%) disagreed with the 16-hour PGY-1 shift limitation had a positive impact on first-year resident training (69%) or had improved patient safety (62%). Interestingly, reported duty hour violations were largely unchanged despite the increased limitations imposed in 2011. Likewise, the majority of respondents indicated that the new standards would have a negative impact on their residency training. Furthermore, the majority of respondents believed that operative caseload and continuity of care would decrease, duty hour violations would increase, and the changes would have no effect towards reducing medical errors. Ultimately, the survey was most notable for the overwhelming negative attitude among respondents towards further mandated duty hour restrictions. Interestingly, similar perspectives were expressed in national surveys of both residents and program directors in a variety of other specialties [7-13].

In 2012, we repeated our survey of neurosurgery residents in order to examine the perceived effects of the 2011 duty hour standards following implementation. In this follow up survey, 253 residents responded. The majority of respondents disagreed that the 16-hour PGY-1 shift limitation had a positive impact on first-year resident training (69%) or had improved patient safety (62%). Interestingly, reported duty hour violations were largely unchanged despite the increased limitations imposed in 2011. Likewise, the majority of respondents indicated that the 2011 standards had not affected operative caseload, academic productivity, quality of life, or resident fatigue. In contrast to the 72% of residents who predicted that increased duty hour restrictions rules would have a negative impact on training, only 35% of respondents in this post-implementation survey
reported a negative impact [14]. While the 16-hour rule is largely unpopular, it seems that the 2011 regulations have had a less drastic impact on neurosurgery programs across the country, as perceived by residents, than what was predicted in our pre-implementation survey.

In addition to the perceived impact of duty hour regulations, we discovered that falsification in duty hour reporting was common among neurosurgical residents. In our survey, 60% of residents responded that they under-reported their duty hours and nearly 25% dishonestly logged duty hours on a weekly or daily basis. While neurosurgery residency is notoriously an hour-intensive specialty, such duty hour falsification does not appear to be unique to our specialty. Several studies following the 2003 duty hour regulations reported similar issues with noncompliance [15-20]. Similarly, a survey of more than 6,000 U. S. resident physicians across a wide spectrum of specialties following implementation of the 2011 regulations, created by one of our authors to specifically address duty hour non-compliance, demonstrated a high rate of duty hour noncompliance and false reporting [21]. In this study, 43% of respondents stated that they had falsely reported duty hours. As might be expected, surgeons were the most common violators, with 62% reporting duty hour falsification. However other specialties, like emergency medicine and family medicine, which may not traditionally be expected to experience issues with duty hours, had reported rates of duty hour falsification greater than 40%. Unfortunately, it also appears that dishonest behavior are not limited strictly to institutional duty hour reporting, as demonstrated in a large survey of general surgery residents regarding the annual ACGME resident survey. This study found that 14% of residents admitted to dishonest answering of ACGME survey questions [16].

The ethical and professional dilemma of responsibility towards patients and the conflict with duty hour compliance may be challenging for residents [22]. Some residents cited the need for continued care of a sick patient as the reason for intentional violations, demonstrating the conflict in maintaining professionalism in both patient responsibility and professional integrity [23]. Residents may be faced with a moral dilemma when they feel rushed to leave the hospital at the potential expense of a patient [24].

Furthermore, duty hour violations may be associated with potential punishments for residents. Likewise, residents may fear appearing to be inefficient or lazy if they sign out responsibilities to their colleagues before going home. One solution to this problem is to complete clinical duties by working longer than allowed, but under-report hours to avoid punitive responses for duty hour non-compliance – whether this is from their program, institution, or the ACGME. This strategy allows residents to complete their duties, care for their patients, maintain a close physician-patient relationship, avoid being stigmatized as lazy or uncaring, and avoid any punishments for violations.

The survey data previously cited indicate that at many institutions, particularly in surgical specialties, residents may breach hour restrictions on a regular basis but have few reported violations as a result of false reporting. As a result program directors may be unaware that there are issues with duty hours or that such dishonest behavior is occurring. It is also plausible that some program directors may have some awareness of these behaviors, however if reported hours are compliant they may not be able to act towards correcting them for lack of a tangible transgression. Ultimately, many residents and program directors report disapproval of the restrictions, [6,7,25-27] which may serve as added justification for these individuals to continue reporting inaccurately. However, neither disapproval of duty hour standards nor the “appearance” of compliance justifies duty hour falsification.

An important component of graduate medical education is the development of resident physicians as mature and competent professionals. The ACGME Core Competencies clearly indicate that honesty and adherence to legal and medical regulations are a necessary component of the graduate medical education process. However, the ACGME duty hour regulations may have inadvertently created a learning environment where intentional violations, dishonest reporting of duty hours, and false ACGME survey responses appear to be commonplace. While such behavior is not universally practiced among all resident physicians, it certainly appears to be occurring at an alarming incidence, particularly among neurosurgeons. We have to consider: are we encouraging dishonesty and disregard for authority within our neurosurgery residents by placing them in a situation where falsification is the easiest or only option? How will the reinforcement of dishonest behavior during training impact their integrity in their future careers?

Regardless of the unpopularity of duty hour regulations, they are here to stay. Given the ongoing public concern for physician fatigue, [28] there may debate over further restrictions to resident work hours in the future. It is imperative that we consider the unintended consequences of the duty restrictions not only on patient care and education, but also with regard to professionalism in our trainees. A first step in addressing this dilemma is further study of resident behaviors and means by which programs, institutions and the ACGME track duty hour violations. Administrators must realize that seemingly well-intentioned punitive measures, which were created to keep residents compliant, have inadvertently generated a training environment where dishonest behaviors are encouraged.

A culture change from punishments and towards acceptance of physician commitment to patients, at the highest levels of graduate medical education, may be necessary. Flexibility in our commitments, tailored to individual specialty or training needs to allow for achievement of the required competencies, which simultaneously provide lenience for appropriate patient care responsibilities should be encouraged. However, if further restriction of duty hours occurs without a synchronous change in the punitive culture behind policing duty hour restrictions, we are likely to see even more explicitly unprofessional behaviors among our resident physicians.

REFERENCES


