Duty Hours: More Rest? More Sleep? Less Learning?

Enrique Gomez-Pomar
University of Kentucky, enrique.gomez@uky.edu

Click here to let us know how access to this document benefits you.

Follow this and additional works at: https://uknowledge.uky.edu/pediatrics_facpub

Part of the Medical Education Commons, and the Pediatrics Commons

Repository Citation
Gomez-Pomar, Enrique, "Duty Hours: More Rest? More Sleep? Less Learning?" (2017). Pediatrics Faculty Publications. 267.
https://uknowledge.uky.edu/pediatrics_facpub/267

This Article is brought to you for free and open access by the Pediatrics at UKnowledge. It has been accepted for inclusion in Pediatrics Faculty Publications by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.
Duty Hours: More Rest? More Sleep? Less Learning?

Enrique Gomez-Pomar*
Department of Pediatrics, University of Kentucky, USA

Submission: February 07, 2017; Published: April 11, 2017
*Corresponding author: Enrique Gomez, Department of Pediatrics, University of Kentucky, USA, ORCID ID: orcid.org/0000-0002-5815-100X, Tel: 973-830-0057; Email: Enrique.gomez@uky.edu

Keywords: Duty hours; ACGME

Short Communication

Residency duty hours have been a source of controversy since its inception. There is a delicate balance between providing residents with adequate patient exposure to gain clinical skills and confidence; while providing ample time for uninterrupted rest and learning. If this relationship is not carefully managed, excessive clinical time can lead to fatigue, thereby compromising learning and patient safety. However, limiting patient interaction too much can have equally negative effects. Since the revision of duty hours in 2011 this topic has generated more controversy related to decreased patient interaction and continuity of care, without improvement in patient safety, resident fatigue, and or resident learning.

The designation of "resident" refers back to the initial days of post-graduate medical education, when newly minted physicians would literally reside in the hospital; often working continuously for several days without rest [1]. In 1910 the American Medical Association (AMA) published the first list of approved residency programs [1]. Forty years later, Internal Medicine and General Surgery specialties created the Resident Review Committees (RRCs) to serve as independent reviewers with logistical support from the AMA [1]. The Liaison Committee for Graduate Medical Education (LCGME), created in 1972, assumed control of the RRCs and would later become the current American Council on Graduate Medical Education (ACGME) in 1981 [1].

True increase in supervision of resident physicians came about in 1984 after the death of Libby Zion, a patient in a New York Emergency Department who was cared for by fatigued residents [1]. A review of the case showed that the patient likely died from serotonin syndrome after two antipsychotic drugs were administered too close together, presumably as a result of fatigued physicians. This led to the creation of the Bell Commission which recommended, in 1987, to limit patient contact for resident physicians to eighty hours per week, with a maximum of twenty four continuous work hours. It also required the attending physicians to be present in hospitals at all times [1]. While improvements were being made in New York, these changes were generally ignored by the rest of the nation until 2003. In that year, the ACGME adopted the recommendations for all programs, with the additional requirements of the following:

A. One day free of duty each week.
B. A limit of thirty hours of consecutive duty.
C. Hospital call no more frequent than every third night.

These standards remained in place until 2011 when the ACGME voted to further limit duty hours by capping the number of consecutive working hours to sixteen for interns and twenty eight for senior residents. With the implementation of new regulations, training programs feared that further reduction in work hours would negatively affect resident’s education. In response, the ACGME task force committee released a statement supporting the sixteen-hour standard for first-year residents indicating that these new regulations governing interns would increase the amount of direct supervision of residents, promoting patient safety and resident learning. The committee also stated that supervision is likely to be the most important factor to prevent errors [2].

The main reason for regulation and implementation of duty hours was the concern for patient safety and resident’s well being. The prevailing theory is that fatigued residents have an increased propensity to make medical errors compared to their rested colleagues. The main debate comes from the question of who provides safer care, a well-rested resident who only knows the patient from a hand-off or a fatigued resident who has cared for the patient since admission. Before the 2011 change, studies showed that limiting resident work hours would not fix sleep.
Duty hours are important and they should be respected, however, it seems that there is an impending need for a reevaluation of the current practices and the evidence available in order to modify the current regulations. Any further change that limits resident interaction with patients should be carefully examined, especially for the unintended consequences on patient care, resident learning, and well-being.

References
1. Philibert I, Taradejna, Cynthia (2011) The ACGME 2011 Duty Hour Standard Enhancing Quality of Care, Supervision and Resident Professional Development. Chapter 2: A Brief History of Duty Hours and Resident Education, pp. 5-11.
2. ACGME (2015) Force on Quality Care and Professionalism Response to Public Comments.
3. Fletcher, Kathlyn E, Davis, Stephen Q, Underwood W, et al. (2004) Systematic Review: Effects of Resident Work Hours on Patient Safety. Annals of Internal Medicine 141: 851-857.
4. Baldwin DC, Daugherty SR (2004) Sleep Deprivation and Fatigue in Residency Training: Results of a National Survey of First- and Second-Year Residents. Sleep 27 (2): 217-223.
5. Roisin O, Christopher SP (2014) Delinking resident duty hours from patient safety: BMC Medical Education 14(Suppl 1): S2.
6. Ahmed N, Devitt KS, Keshet I, Spicer J, Inrie K (2014) A Systematic Review of the Effects of Resident Duty Hour Restrictions on Surgery Impact on Resident Wellness, Training, and Patient Outcomes. Ann Surg 259(6): 1041-1053.
7. Auger KA, Landrigan CP, Gonzalez del Rey JA, Seipling KR, Schuarew HJ, et al. (2012) Better Rested, but More Stressed? Evidence of the Effects of Resident Work Hour Restrictions. Acad Pediatr 12(4): 335-343.
8. McCoy CP, Andrew JL, Conor GL, McDonald S, Amy SO (2011) Effect of 16-Hour Duty Periods on Patient Care and Resident Education. Mayo Clin Proc 86(3): 192-196.
9. Antiel RM, Reed DA, Van Arendonk KJ, Wightman SC, Hall DE, et al. (2013) Effects of Duty Hour Restrictions on Core Competencies, Education, Quality of Life, and Burnout Among General Surgery Interns. JAMA Surg 148(5): 448-455.
10. Bolster L, Bourke L (2015) The Effect of Restricting Residents Duty Hours on Patient Safety, Resident Well-Being, and Resident Education: An Updated Systematic Review. J Grad Med Edu 7(3): 349-363.
11. Jeffrey HS, Patrick SR, Kamal MF, Amy KR, Dylan S (2014) Assessing the Effects of the 2003 Resident Duty Hours Reform on Internal Medicine Board Scores. Academic Medicine 89(4): 644-651.
12. Rajaram R, Chung JW, Jones AT, Cohen ME, Dahlke AR, et al. (2014) Association of the 2011 ACGME Resident Duty Hour Reform With General Surgery Patient Outcomes and With Resident Examination Performance. JAMA Surg 312(22): 2374-2384.
13. ABPorg (2017) Initial Certification and Maintenance of Certification Exam Pass Rates.
