



Residency Stress

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It is well recognized that residency is a stressful time during medical training and fatigue and prolonged work hours are a major source of stress. Asken¹ reviewed the subject over 20 years ago and concluded “there are potentially severe negative effects from sleep deprivation on physicians-in-training.” The issue of resident fatigue gained public attention when a New York grand jury investigation specifically cited fatigue and long work hours as contributing factors to the 1984 death of a young woman. The “Libby Zion” case² involved an 18-year-old woman admitted at 2:00 a.m. for fever; by 6:30 a.m. she was dead of respiratory arrest because of bilateral bronchopneumonia. The report noted that both the intern and senior resident had been working 18 hours before Libby Zion’s admission. Since then, a multitude of studies have demonstrated negative effects of fatigue and sleep deprivation on various aspects of medical care. Veasey³ reviewed 33 studies of the effect of fatigue on physician performance and 25 of these studies found significant deterioration in physician performance including: surgical efficiency, post operative complications, reading EKGs, verbal reasoning, judgment, reviewing lab data, finding chest x-ray nodules, board examination scores, hand-eye coordination, creative thinking, short-term memory and time for endotracheal intubation. A recent publication⁴ found that 18-20 hours of wakefulness was equivalent to blood alcohol level of 0.1 (legal intoxication). Residents driving home after long shifts have double the odds of having a motor vehicle crash and five times the odds of a near-miss.⁵ McCall⁶ commented, “Common sense suggests that residents’ abilities are impaired by fatigue. Few would choose to ride in a car driven by a resident coming off a 36-hour shift. It should come as no surprise that the public would question the ability of sleep-deprived residents to make life-and-death decisions.” Bellini⁷ has shown a decline in mood and empathy over three years of residency training. In spite of the growing body of research, long work hours and sleeplessness had become an accepted aspect of residency education with some arguing that reduced work hours would result in inadequate clinical experience. In addition, it has been stated that these harsh working conditions are important in steeling the physician in training to the demands that will be necessary during the practice of medicine after training. In 2003, the Accreditation Council for Graduate Medical Education set resident work hour limits, including limiting duty shifts to 24 hours. This was a significant step forward but still falls short of the standards set for other critical jobs (airline pilots are limited to eight hours flying time and must have eight hours rest every 24 hours).

Fatigue is hardly the only source of stress during residency. It is now common for students to enter residency with over \$100,000 in educational debt, increasing their financial stress. With declining reimbursements, many worry how they will repay their educational loans.

The demands of residency make it difficult to live a healthy, balanced life. Meals are often skipped and of poor nutritional value, regular exercise is difficult and there isn't enough time for family, friends and outside interests. It is ironic that it is difficult for residents to adhere to the advice they give their patients.

Managed care pressures on hospital length of stay have resulted in hospital patients being more acutely ill and residents having to deliver medical care over a shorter time-frame.

The medical education system can also be a source of stress. Musselman⁸ describes the extent to which harassment, such as intimidation, belittling and public humiliation, still exist during training. Comparisons have been made between medical education and the dynamics in abusive families.⁹

Residency is a time of high stress but also a time of excitement about new knowledge and experiences. It is encouraging that medical education is becoming more aware of these stresses and making efforts to reduce them.

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