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Must we keep depriving residents of sleep?

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Would you like an alcohol-impaired resident involved in hospital care? Of course not. Why, then, is it acceptable for exhausted residents to examine patients, assist in operations or write prescriptions when they may be functionally impaired at a level comparable to alcohol intoxication?[1]

Sleep deprivation affects learning, cognition, job performance, physical and psychological well-being, and personal life. Residents are not magically immune from these events.[2] After working long shifts, house staff are more likely to have car crashes, accidentally jab themselves with needles and make serious medical errors.[3,4,5] Depriving residents of sleep puts both them and others at risk.

To address these concerns, many have recommended reduced working hours for residency programs. By August 2009, the European Working Time Directive will limit an average maximum working week to 48 hours, with a maximum of 13 consecutive hours and a mandatory minimum rest period. In the United States, the Accreditation Council for Graduate Medical Education (ACGME) instituted regulations in 2003 that restrict residents to a maximum 80-hour workweek, with a maximum shift length of 30 hours. Last year, the Institute of Medicine in the US called for even tighter restrictions.

Evaluation after the ACGME changes found that, as predicted, residents in the US have improved quality of life, particularly in the surgical specialties. However, for some residents, the workload did not change, even as the work hours decreased, and educational satisfaction dropped or remained neutral.[6] Predictions of impoverished learning experiences in procedure-driven specialties, such as surgery, appear to be unfulfilled.[7] Innovative teaching methods, such as surgical simulators, have been used to address potential reductions in patient encounters.

In many hospitals, the work originally done by house staff has shifted to others. In some programs, faculty have experienced increased work and stress. Other institutions have been quite deliberate about creating nonteaching wards and hiring substitute providers, such as hospitalists, nurse practitioners and physician assistants, to augment or replace residents. For centuries, teaching hospitals have benefited from low-paid house staff labour. As a consequence, even the modest ACGME restrictions are estimated to have cost several billion dollars US.

Those who believed that patient safety would be greatly improved by well-rested residents have been disappointed. Patient adverse events are usually multifactorial in origin, and resident fatigue is only one component. In response to concerns that decreased continuity of care may worsen patient safety, many institutions have developed transfer policies to ensure that continuity is maintained. Patients appear to be doing no worse and perhaps better since the ACGME restrictions were instituted.[8]

So, what are we left with? An expensive, yet modest, overhaul of resident duty hours that did not really improve resident education or patient safety but provided better quality of life for residents. Are happier and healthier residents worth this change? The answer is yes. When we force residents to be on duty when they are exhausted, we are sending them a clear message: it is acceptable in the medical profession to work to the point of impairment. The development of a realistic work–life balance and healthy habits should be encouraged during residency, not developed in spite of it.

How does Canada treat its residents? Residency working agreements are negotiated provincially. Most provinces do not have a maximum workweek, and residents may be required to work 24 or more continuous hours. This is unreasonable. Truck drivers, rail crews and pilots, among others, have regulated maximum hours and mandatory rest periods. A thorough assessment of current working hours in the context of resident well-being must be undertaken. Any proposed reductions or adjustments in resident working hours should be coupled with a thoughtful evaluation of the effect on the educational experience to ensure that residents acquire appropriate skills and competencies. That way, Canadians will be the beneficiaries of a healthy and competent resident workforce.

Diane Kelsall MD MEd
Deputy Editor, Practice
CMAJ
With the Editorial-Writing Team (Paul C. Hébert MD MHSc, Matthew B. Stanbrook MD PhD, Ken Flegel MDCM MSc, Noni MacDonald MD MSc, Amir Attaran LLB DPhil, and Laura Eggertson BA)

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