Sleep deprivation in physician training

See Introduction on p.138, Essays Vol:11, 1988

> Sleep that knits up the ravell'd sleave of care,
> The death of each day's life, sore labour's bath,
> Balm of hurt minds, great nature's second course,
> Chief nourisher in life's feast
> —Shakespeare, *Macbeth*

Professional organizations and bureaucracies can have an uncanny way of undermining the very values that define the work of their members. Medicine, for example, has as its fundamental aim the relief of suffering and the lessening of human misery. As an organized profession, however, it sometimes indulges in certain practices that are harmful both to its members and to the patients it serves. As a physician I feel compelled to call attention to these practices because I believe their perpetuation constitutes no less an inhumanity than their original imposition. I refer, in short, to the nearly ubiquitous custom of requiring doctors-in-training, ie, hospital interns and residents, to work continuously every third or fourth day for 34 to 40-plus hours at a stretch without an assured period of sleep. During my internship I personally averaged approximately one and a half hours of sleep per 36-hour period. The consequences of such a system are, to my mind, far-reaching.

Let me begin with the medical housestaff, the interns and residents who staff most of our teaching hospitals around the clock. The routine pressures, stresses, and demands of caring for a sizable number of patients in today's hospital are not inconsiderable. A high degree of diligence, thoroughness, exquisite attention to detail, as well as a fair amount of intellectual and manual skill are the minimum requirements for competence, constantly demanded and daily employed. Patients admitted to hospitals nowadays are generally more ill than ever before, frequently on the brink of death; and technology makes possible a wider and ever-burgeoning array of therapeutic interventions. Lapses or oversights can sometimes prove fatal. Emergencies necessitating quick and abundant action occur rather frequently. The atmosphere is, to say the least, highly charged.

Immersed in this veritable cauldron of suffering, surrounded by death, compelled to energized vigilance and plain hard work, residents are regularly and systematically deprived of "sore labour's bath, balm of hurt minds"[1]—the much-needed refuge of sleep. It is interesting to note that a common form of torture employed in oppressive political regimes is routinely seen in the training of designated servants to humanity.

The physical effects of exhaustion—slow-wittedness, decreased strength, and impaired dexterity—during the period of sleep deprivation seem obvious. But there are other consequences as well. Curious things happen to a resident's psyche. The hurt, frustration, resentfulness, and intense anger that inevitably follow from what seems to be an endless, claustrophobic cycle of duties are ultimately directed against patients. This is irrational, unfortunate, but true. The patient comes to be regarded more as a "torture machine," ceaselessly bothering residents with demands for care, than as a suffering human being. The goal of treatment becomes disposal (getting the patient out of the hospital) instead of palliation, an attitude that has been well documented.[2] Sympathy and compassion, under the haze of heavy-lidded eyes, give way to hostility and disinterest.

Anyone falling within earshot of a group of residents at the luncheon table would be privy to the black humor directed towards patients. The patient has become the enemy, when the real enemy is the senseless system.[2]

By no means do I imply that we residents routinely indulge in cruelties. Our gallows humor is insurance against this. However, sympathy and tolerance for suffering certainly lessen. During the years that are critical for the cultivation of the appropriate relationship to patients, disease, and death, the poison of an adversarial attitude is introduced and allowed to flourish.

There are other consequences, perhaps more readily apparent. Demoralization, despair, and apathy beset residents. Breakdowns occur. Tempers shorten and outbursts of rage and rudeness flare, to the detriment of nurses and other hospital staff, including colleagues. I know of some residents who have retched, and others who have succumbed to tears during their sleepless stints. And I know of several cases where the muddied thinking and general dullness of mental faculties under conditions of sleep deprivation have resulted in suboptimal treatment. In one such instance, a fatality nearly occurred. In should be obvious that someone who has not slept for 24 or 30 or 34 or 40 hours may not be the person to be relied on for clear, rational decision making, especially where life and death may be at stake. Any sen-

sible individual would cringe at the idea of entrusting his life to a groggy airline pilot. Does one somehow feel more secure being admitted to the hospital under the care of a bone-weary intern who, with the mere slip of his pen, might jeopardize one's existence?

For those of us who survive the training process intact, scars remain. Even in the best of us there would seem to be an ingrained sense of superiority to patients. Furthermore, a sense of entitlement that often begins in medical school continues to develop.[3] After passage through such an onerous period we come to believe that we actually deserve to have the accoutrements of the good life. We become entrenched members of an elite, a breed of royalty, forming an exclusive fraternity. And it is this which explains in part the public's mounting dissatisfaction with physicians.

Sadly, the misery continues to be revisited upon others. Fresh medical school graduates are themselves subjected to the same senseless hazing. The victim has become the persecutor. "They should go through what we went through" is the attitude that prevails.

There is an attempt to justify the present on-call system by citing its value in building character, teaching residents to handle emergencies, and helping students master the details of medicine when a patient remains acutely ill over a long period of hours or days. This is hogwash. Enough emergencies occur both day and night to test our mettle. And education actually suffers greatly. I have learned little, if anything, while groggy. Worse yet, the desire to learn and study, to plumb the depths of medical knowledge during off-hours, is utterly extinguished by the fatigue, and the repulsion against all medical material which we come to feel. The detailed, comprehensive histories and physical exams which we strove so hard to master in medical school become embarrassingly skeletal. The system tends to turn generally compassionate people into cynical automata, at least temporarily; it inspires regression and decompensation rather than healthy growth.

At least one solution does exist, one that requires no additional expenditure of scarce financial resources (not that this should stand in the way), and one that a number of progressive institutions have begun to employ with considerable success. It is simply the use of a shift system, or, as we know it in medical circles, the "night-float." Essentially, it guarantees a period of sleep for each resident on or off call. For example, during my on-call day (the day when I am responsible for admitting patients), I would work until 11 PM, at which time I would be relieved by a fresh resident whose task for the month would be working nights. And at 7 or so the next morning I would return to resume my responsibilities and relieve the night worker, refreshed and possibly even enthusiastic.

I am convinced that this simple change would confer tremendous benefit on medical training. Residency would by no means be devoid of tribulations, but it would prove to be a much more tolerable and humane experience, as implementation has already demonstrated. The solace of assured sleep would make all the difference in the world.

I would like to emphasize yet another consequence of the current process. After we pass through an internship we tend to ignore or deny its damages, preferring instead to preserve only the moments that have given satisfaction, for example, the instances when our work has "paid off" in a "cure." Dismal memories recede, and with them our desire to effect change. In this way we contribute to perpetuating the system, a marked transgression of our own Hippocratic vows, thereby committing future physicians to needless torment and patients to poorer care. This may explain why the advantageous night float system has not yet been adopted on a wide scale across the country.

Recently, *The New York Times*, *Newsweek*, and *Sixty Minutes* touched on some of the points I raise. Even a few of my patients have uneasily asked whether I was one of those "36-hour" doctors. My impression, however, is that the public remains generally ignorant of the process and how it affects them. In no other profession would such reckless practices be tolerated. As a physician, I call on the public to exert its influence on the medical profession to bring about an end to the useless and harmful system I have described. The result would be better medical care and perhaps even the disappearance of the distasteful relics of residency—elitism and entitlement.

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1. Shakespeare W: *Macbeth*, II, ii, lines 38-41.
2. Mezrahi J: *Getting Rid of Patients. Contradictions in the Socialization of Physicians*. New Brunswick, NJ, Rutgers University Press, 1986.
3. Dubovsky JL: Coping with entitlement in medical education. *N Engl J Med* 1986; 315:1672-1674.