



**Student National Medical Association
Statement on Residency Work Hours**

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The Student National Medical Association (SNMA), established in 1964 by medical students of Meharry Medical College and Howard University, is the nation's oldest and largest organization focused on the needs and concerns of underrepresented medical students of color. As future physicians, we recognize the need for comprehensive residency work hour limitations and regulations in order to assure the protection of both our patients and ourselves inside and outside of the workplace.

Why are Work Hour Limitations Needed?

As medical students transition into their careers as physicians, they are faced with a traditionally difficult and strenuous training period of residency. In general, American medical resident physicians (physicians-in-training) work among the highest – if not the highest – number of hours in the professional world, regularly clocking 95 and as many as 136 out of the 168 hours in a week.¹ These long hours have a detrimental effect on the mental, emotional, general health, and safety status of resident physicians, who are indeed charged with the initial medical care of a significant population of patients across the nation. Sleep deprivation resulting from these long hours is considered the norm.

Under such conditions, resident physicians pose a danger to themselves and others. An informal survey published in JAMA in 1988 found that 6 out of 7 surgical resident physicians had fallen asleep at the wheel while driving to and from work, and that three had been involved in car accidents.² Another study concluded that “emergency medicine resident physicians are 6.7 times more likely to have a [motor vehicle crash] due to falling asleep at the wheel during their residency [than before their residency].”³ In another study, 49% of primary care resident physicians reported falling asleep at the wheel (not necessarily at a stop light), and 90% of these events occurred while resident physicians were post-call.⁴ It is indeed unacceptable in the interest of patient care that these sleep-deprived physicians are treating patients, performing surgeries, and prescribing medications.

The emotional and mental states of resident physicians have been adversely affected by sleep deprivation. Mood alterations that are common as resident physicians become fatigued and sleep deprived are difficulty concentrating, depressed mood, irritability, inappropriate affect, and memory deficit.⁵ Another study compared resident physicians that were on-call with those who were not and assessed their mood state as based on tension-anxiety, depression-dejection, anger-hostility, vigor-activity, fatigue-inertia, and confusion-bewilderment. The on-call group demonstrated increased negative mood post-call, while the off-call group demonstrated improved mood on the second day. The authors suggested that call duty affects a broader array of psychological responses than simply fatigue.⁶ A review of the studies of the effects of sleep deprivation on resident physicians concluded that the

“accumulated evidence of studies performed over the past 30 years...suggests that the traditional system of 100-hour work weeks and 36-hour days may do harm. Clearly, resident physicians' moods, affects and attitudes are altered unfavorably.”⁷

In addition to changes in mood, as many as 30% of medical resident physicians experience depression at one time during their residencies, with female physicians being especially vulnerable.^{8,9} One author stated, “[the] combination of stress and fatigue may lead to severe psychologic repercussions, which may first appear as disappointment, loss of idealism, and isolation, and then progress to feelings of helplessness, impaired performance, and outright depression.”¹⁰

The aforementioned statistics show that not only are resident physicians being harmed by the negative effects caused by long hours, but also that patients and the proper delivery of their health care may be affected as well. According to the Institute of Medicine, 100,000 patients die each year because of medical errors. While acknowledging that medical errors could occur in a wide range of situations, it is also important to recognize the data from an increasing number of studies that pinpoint sleep deprivation as a contributor. One study showed that well-rested physicians outperform their sleep-deprived colleagues in tests of memory, mathematical skills, visual attention, concentration, electrocardiogram interpretation and anesthesia monitoring.¹¹ Another study provided the results of a survey of anonymous internal medicine resident physicians; they reported that 41% of their medical errors were due to fatigue.¹²

The arguments against residency work hour limitations are indeed significant, but yet not sufficient enough to ignore the above statistics. Opponents appropriately cite the financial burdens of hospitals that residency programs alleviate. Residency programs provide a service to the hospital and the community by providing physician coverage at a decreased cost to the hospital in exchange for their education. Additionally, resident physicians often treat the non-private, local, and uninsured patient populations. However, such services at the cost of the physical and mental health of the resident physicians cannot be considered humane.

Residency work hour limitations have been opposed by some because of a belief that resident physicians will work too few hours and that the continuity of patient care will be endangered. Given that residency training programs have defined timelines for completion, limiting the amount of hours that resident physicians are scheduled to work may create problems for the resident physicians in achieving proper training (i.e. surgical and obstetrics/gynecology resident physicians that are required to perform a specific number of cases). Some are concerned that limiting residency work hours will disrupt the continuity of care of patients and damage the integrity of the patient-physician relationship. Anecdotal evidence, however, shows that much of the time that resident physicians are in the hospital is not used for direct patient care and resident education, but is instead used to perform ancillary tasks (find laboratory results, perform clerical duties, and other non-educational tasks). By cutting back on the non-educational tasks, the time that the resident physicians spend in the hospital can be used more efficiently to ensure quality and continuity of patient care as well as to develop and maintain the patient-physician relationship.

Our Stance

While recognizing the arguments against residency work hour limitations, we do not recognize the exorbitant working hours of resident physicians as being the only solution to the problems.

There are other avenues that individual programs can explore in terms of scheduling and budgeting in order to ensure that hospitals are providing both excellent patient care and medical education for their resident physicians. The ultimate outcome for assessment should include the minimization of medical errors and the humane treatment of resident physicians as employees of their institutions.

We appreciate the enacted policies of the Accreditation Council for Graduate Medical Education (ACGME), as of February 2003.

- 1) An 80-hour per 7-day week maximum (Averaging over 4 weeks)
- 2) A 24-hour shift length maximum
- 3) A maximum on-call frequency of every third night (Averaging over 4 weeks)
- 4) Mandatory 24 hours off per week (Averaging over 4 weeks)
- 5) No protection for residents physicians that provide information on programs that are in violation of the above policies
- 6) Possibility of specialty wide exemption after at least one year from the implementation date of these requirements

However, we, the members of the Student National Medical Association, are in strong support of the following modified measures:

- 1) An 80-hour per 7-day week maximum (Averaging over 2 weeks)
- 2) A 24-hour shift length maximum
- 3) A maximum on-call frequency of every third night (Averaging over 2 weeks)
- 4) Mandatory 24 hours off per week (Averaging over 2 weeks)
- 5) Protection for resident physicians that provide information on programs that are in violation of the above policies
- 6) Civil penalties for and public disclosure of hospitals that are in violation of the above policies

Acknowledgements:

- American Medical Student Association, www.amsa.org
- Public Citizen, www.citizen.org
- Accreditation Council for Graduate Medical Education, www.acgme.org

¹ Lagnado, L. Hospitals overwork young doctors in New York. *Wall Street Journal*. May 19, 1998.

² Wendt JR, Yen LJ. The residency by moonlight; a misguided missile. *Journal of the American Medical Association*. 1998; 259 (1):43-44.

³ Kowalenko T, Haas-Kowalenko J, Rabinovich A, Grzybowski M. Emergency medicine residency related MVCs – is sleep deprivation a risk factor? *Academic Emergency Medicine* 2000;7(5):451.

⁴ Marcus CL, Loughlin GM. Effect of sleep deprivation on driving safety in housestaff. *Sleep* 1996; 19:763-766.

⁵ Friedman RC, Kornfeld DS, Bigger TJ. Psychological problems associated with sleep deprivation in interns. *Journal of Medical Education* 1973; 48:436-441.

⁶ Berkoff K, Rusin W. Pediatric house staff's psychological response to call duty. *Developmental and Behavioral Pediatrics* 1991; 12:6-10.

⁷ Samkoff JS, Jacques CHM. A review of studies concerning effects of sleep deprivation and fatigue on resident physicians' performance. *Academic Medicine* 1991;66(11):687-693.

⁸ Valko RJ, Clayton PJ. Depression in the internship. *Diseases of the Nervous System*. 1975; 36:26-9.

⁹ Pitts FN, Schuller AB, Rich CL, Pitts AF. Suicide among U.S. women physicians 1967-1972. *American Journal of Psychiatry* 1979;136:694-696.

¹⁰ Reuben DB. Psychologic effects of residency. *Southern Medical Journal* 1983; 76: 380-383.

¹¹ Robbins J, Gottlieb F. Sleep deprivation and cognitive testing in internal medicine house staff. *Western Journal of Medicine* 1990; 152:82-86.

¹² Wu AW, Folkman S, McPhee, SJ, Lo B. Do house officers learn from their mistakes? *Journal of the American Medical Association* 1991; 265: 2089-94.