Benefits of Resident Work Hours Regulation

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The new regulations for resident work hours are part of a long evolutionary process of change in medical education, representing the most dramatic innovation in recent history to calibrate the work hours for residents. Implementing the requirements has not been easy. Most institutions and departments have experienced serious challenges (1–3). Moreover, many educators are concerned that by focusing on a maximum number of work hours and a "deadline" for leaving the hospital, the regulations threaten both the educational process and the meaning of professional responsibility.

Despite these current challenges, we highlight several positive effects of the new regulations. This is not to say that our own initial experience has been universally positive. We have, like others, been challenged to ensure continuity and quality of patient care, protect valued educational experiences, and continue to emphasize collegiality and teamwork. Although data that validate the positive outcomes are scarce, we believe that the changes have had and will continue to have positive effects (**Table**).

Table. **Positive Effects of Hours Regulations**

Major Focus	Effects
Public	Better-rested care providers and improved systems of care
Trainees	Less exhaustion and burnout, greater self-care, increased attention to personal and professional goals, and increased participation in system change
System of education	Recognize potential for change and focus on teamwork and system change

Short- and Long-Term Benefits for the Public

A primary driver in the institution of resident work hour limitations was to improve patient care in training institutions. Such care must include human sensitivity by and for providers, as well as system effectiveness for patients. Fortunately, the regulations are occurring simultaneously with greater attention to system function, assessment of care, and a commitment to improved care. It has become apparent that improved system function with less frequent errors will require more than restricted hours. Evaluation of the effect of New York's restricting housestaff working hours suggested an increase in delays of test ordering and in complications (4). Other data indicate that increased shift work to accomplish the restrictions may increase errors, possibly as a side effect of more frequent handoffs and cross-coverage of patients (5). Other results show that for the public to experience desired positive effects, the regulations must be coupled with more extensive system revision (6). Thus, in the short term, the regulations should provide patients with providers who are more rested; in the long term, the system analysis brought about by the regulations should provide patients with an improved system of care, going beyond the limitation of physician hours.

Benefits for the Trainee

While residents prepare for their professional lives, they must learn how to develop professional competence and achieve personal fulfillment. In the past, the educational system has assumed that intensive professional training would ensure short- and long-term personal gratification. However, research has demonstrated that overemphasizing intensive training creates personal stress and burnout for professionals and suboptimal care for patients (7–9). The new regulations prompt us to develop training programs that simultaneously optimize the care of the trainees and the public they serve.

We anticipate several positive effects on trainees. First, during training, restricted work hours should limit fatigue and exhaustion. This could result in immediate personal benefits, such as those suggested by the petition to the Occupational Safety and Health Administration (for example, a potential reduction in automobile accidents) (10). Second, by having more personal time, housestaff and future physicians might enjoy a more balanced life, enhancing their gratification outside of their professional role. Third, a more balanced approach can lead to even greater satisfaction as a physician. Appropriate time away from the hospital may help physicians to fulfill not only personal needs but also other desires, such as increased self-directed learning by reading, participating in community service, and contributing to the educational system for others (for example, residents preparing to teach each other).

Finally, the regulations allow trainees to get involved in organizational change. We believe that participating in major organizational change and ensuring system quality should be an integral part of the professional education of physicians. Commentators on the topic of professionalism note that physicians have, for the most part, passively participated in this process locally, nationally, and globally. Some physicians may feel professionally disenfranchised, in part because the profession has relinquished this responsibility (11, 12). While the health care system evolves and individual centers work to improve their effectiveness, physicians must be involved in the process. Thus, we believe that residents should be integrally involved in developing

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and implementing changes responding to the regulations, ensuring that the systems retain a high commitment to patient care and education. In this process, housestaff will learn a professional skill that will, now and in the future, benefit patients, residents, and the medical care system. In summary, trainees can benefit from the immediate and practical benefits of the regulations, as well as the long-term enhancement of their personal and professional roles.

Benefits for the System of Education

Although the benefits for current patients and housestaff are important, some of the most important benefits are those that can permanently influence our medical education system and, in turn, the field of medicine itself. These benefits include learning to change and focusing on curricular areas pertaining to current medical care, such as systems improvement and teamwork. One benefit of forced change is the institutional experience of learning that dramatic transformations are, indeed, both feasible and potentially desirable. Programs now realize that substantial change is possible, even for adaptations that were thought to be impossible to implement. Over time, the process of examining our educational activities will prompt us to establish new educational paradigms for achieving the valued goals of our profession, effectively combining both didactic and service education (13).

Physician participation in systems improvement will be essential for future physicians and beneficial for the system. This area must become part of the medical curriculum to facilitate continued improvement in health care delivery. In addition, a new approach to teamwork should be an educational goal. Encouraging teamwork among housestaff has been a major component of training programs; however, there has been little educational emphasis on the care provided by the entire team of allied health professionals. In the past, educational programs have emphasized and analyzed the care provided by individual physicians or possibly by the housestaff team. Yet, care delivery depends on various team members, including the hospital operators, clerks in the clinic, case managers, social workers, nurses, and others. As physician hours are restricted, teaching physician collaboration as part of the health care team requires greater emphasis. The long-term improvement of health care delivery will depend on physicians' understanding and facilitation of the work of the entire health care team and the system in which they work.

As noted by Berwick (14), such changes may require dramatic alterations in system design. As professionals, we will need expanded experience in facilitating needed change (14). We must also avoid losing the strengths of our previous training paradigms, including commitment to patients and mastering the science of medicine. However, we now can build on our previous abilities to deliver technologically superb medical care by providing training programs that care for the carers, teach collaboration with the entire health care team, and educate future physicians to become more effective contributors to the system of health care. These approaches will benefit the patients and trainees and ultimately will improve the effectiveness of our medical education and medical care systems. The regulations have provided an important stimulus for achieving these goals.

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