

Impact of Duty Hours on Resident Education in Internal Medicine

Steven Weinberger, MD, FACP

**Senior Vice President
Medical Education and Publishing Division
American College of Physicians**

**Adjunct Professor of Medicine
University of Pennsylvania School of Medicine**

**Senior Lecturer on Medicine
Harvard Medical School**

What is the ACP?

- **National organization for physicians and trainees in internal medicine and its subspecialties**
- **124,000 members**
 - 82,000 internists**
 - 19,000 residents and fellows**
 - 23,000 medical students**
- **Involved in continuum of medical education: UME, GME, CME**
- **Close working relationship with other IM stakeholders**

ACP

AMERICAN COLLEGE OF PHYSICIANS
INTERNAL MEDICINE | Doctors for Adults

Sources of Information

Who provided information?

- Residents
- Faculty
- ACP Committee and Council members
- Program directors
- Other organizations (APDIM)

How was the information obtained?

- Published literature
- Data from questionnaires & surveys
- Individual comments

Breakdown of Educational Issues

- **Resident perception of quality of training**
- **Faculty perception of quality of training**
- **Resident perception of quality of life**
- **Resident sense of professionalism**

Not addressed:

- **Impact on quality of care**
- **Impact on faculty and medical students**

ACP

AMERICAN COLLEGE OF PHYSICIANS
INTERNAL MEDICINE | Doctors for Adults

Negative Educational Impact of Duty Hours

- **Less time for formal educational activities/conferences**
- **Less time for informal education**
- **Less time for ambulatory training**
- **Loss of continuity of care (more handoffs)**
- **Less sense of individual responsibility**
- **Less time at bedside**
- **Worse quality of life in the hospital (more intense)**
- **Shift work mentality**

Potential Positive Impact of Duty Hours on Education

- **Better quality of life outside of the hospital**
- **Less tired for clinical care**
- **Less tired for educational activities**
- **Potentially forces redesign of ambulatory education**

ACP

AMERICAN COLLEGE OF PHYSICIANS
INTERNAL MEDICINE | Doctors for Adults

Program Directors' Viewpoint

Do you think the duty-hour regulations have an adverse impact on your ability to educate your residents?

	All Programs	USA, but not NY	NY only
Yes	57% (117)	59% (101)	45% (13)
No	43% (89)	41% (69)	55% (16)

Program Directors' Viewpoint

	Decreased (%)	Same (%)	Increased (%)
Ability of faculty to teach residents	60	36	4
Attendance at conferences & lectures	59	37	5
Residents' professionalism & sense of responsibility	55	39	7
Effectiveness of rounds	44	50	5
Overall ability to provide patient care	46	46	7
Amount of didactic teaching	34	61	5
Medical knowledge acquisition	30	68	3
Clinical skills proficiency	31	65	3
Teaching skills	23	71	5
Number of medical errors	10	78	12

Residents' Viewpoint (3 programs)

Educational experience	2.3
Bedside learning	2.1
Procedural volume	2.6
Non-educational work	2.5
Mentoring	2.5
Attending attitude	2.6
Shift-work mentality	3.7
Lower quality graduates	3.2

1 = “decreased a lot” or “strongly disagree”; 5 = “increased a lot” or “strongly agree”

Residents' Viewpoint (from IM-ITE)

Variable	Decrease (%)	No change (%)	Increase (%)
Effect on learning of new medical knowledge	11.7	58.3	30.0
Effect on clinical skills	14.0	70.4	15.6
Effect on overall ability to provide patient care	12.3	46.8	40.9

n = 16,619

Defining the Nature of Problems

- **Primary issue is “24 + 6” rule (66% of PD respondents)**
 - Pressure for residents to get work completed and leave hospital
 - Allows no flexibility
- **80 hour work week is much less problematic (10% of respondents)**
- **Intermediate issue: 10 hours between shifts (24% of respondents)**

Specific Challenges (I)

- **Providing protected time for education**
- **Redesigning ambulatory education to simultaneously adhere to duty hour and ambulatory RRC requirements**
- **Maintaining continuity of care and minimizing negative impact of “handoffs” – for benefit of trainees and patients**

Specific Challenges (II)

- **Avoiding increased intensity of work**
Need to ☒ administrative tasks of residents
- **Resource challenges: providing staffing lost by resident coverage**
- **Development of effective team models that optimize education and both continuity and quality of patient care**
- **Incorporating information from sleep science into revision of duty hours (e.g., prophylactic or mandatory naps, issues with varying shifts)**

Necessary Approaches to Address Challenges

- **At level of individual programs**
 - Resources to replace resident work
 - Creative scheduling (solutions are local)
 - Better use of team coverage
 - Optimizing handoffs
- **At level of RRC**
 - Rewriting of program requirements, particularly relating to ambulatory training
- **At level of ACGME**
 - Revision of duty hour requirements to account based on experience to date and sleep science