

# Paperwork Versus Patient Care: A Nationwide Survey of Residents' Perceptions of Clinical Documentation Requirements and Patient Care

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## Abstract

**Background** The current health care system requires a substantial amount of documentation by physicians, potentially limiting time spent on patient care.

**Objective** We sought to explore trainees' perceptions of their clinical documentation requirements and the relationship between time spent on clinical documentation versus time available for patient care.

**Methods** An anonymous, online survey was sent to trainees in all postgraduate years of training and specialties in Accreditation Council for Graduate Medical Education–accredited programs.

**Results** Over a 2-month time frame, 1515 trainees in 24 specialties completed the survey. Most (92%) reported that documentation obligations are excessive, that time spent with patients has been compromised by this (90%), and that the amount of

clinical documentation has had a negative effect on patient care (73%). Most residents and fellows reported feeling rushed and frustrated because of these documentation demands. They also reported that time spent on these tasks decreased their time available for teaching others and reduced the quality of their education. Respondents reported spending more time on clinical documentation than on direct patient care ( $P < .001$ ).

**Conclusions** Trainees' current clinical documentation workload may be a barrier to optimal patient care and to resident and fellow education. Residents and fellows report that clinical documentation duties are onerous, and there is a perceived negative effect on time spent with patients, overall quality of patient care, physician well-being, time available for teaching, and quality of resident education.

*Editor's Note: The online version of this article contains the survey instrument used in this study.*

## Introduction

Changes in hospital reimbursement and public reporting of quality indicators and patient satisfaction have

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Funding: The authors report no external funding source for this study.

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Received December 9, 2012; revisions received February 24, 2013, and June 11 2013; accepted June 16, 2013.

DOI: <http://dx.doi.org/10.4300/JGME-D-12-00377.1>

substantially increased physicians' time spent on clinical documentation. Studies of patient satisfaction indicate that the amount of time a physician spends with a patient is critical to ensuring a positive patient experience; this has implications for patient complaints and malpractice claims.<sup>1-4</sup> Documentation responsibilities<sup>5</sup> may limit physicians' time with patients, particularly for residents who serve as the primary link to the health care team in teaching hospitals and who have limits on their duty hours.

A 2012 direct observational study of the composition of work for internal medicine interns while on in-house call found that 40% of their time was spent doing clinical computer work; only 12% of intern time was spent at the bedside caring for patients and only 2% of time was devoted to teaching and learning.<sup>6</sup> This may represent a shift in the temporal distribution of duties for interns, with more time now being spent on documentation and less time on education and patient care.<sup>7-9</sup>

Clinical documentation responsibilities may contribute to physician burnout. In a national survey of 2000 physicians, 87% of respondents reported that the leading

cause of work-related stress and burnout was paperwork and administrative concerns.<sup>10</sup> It has been suggested that increasing patient volume, decreasing physician reimbursement, malpractice litigation, elevated stress, and growing job dissatisfaction all contribute to disruptive behavior on the part of physicians, and this can lead to medical errors, adverse events, deficiencies in safety and quality, and patient mortality.<sup>11–13</sup>

We sought to assess residents' and fellows' perceptions of clinical documentation requirements to determine whether current levels are associated with frustration, time spent with patients, time available for teaching, and the quality of resident education.

## Methods

We conducted a nationwide, anonymous survey of residents and fellows in Accreditation Council for Graduate Medical Education (ACGME)-accredited programs using SurveyMonkey (Palo Alto, CA; <http://www.surveymonkey.com/>). Residents across all specialties were invited to participate.

Accredited training programs were identified from the ACGME website (<http://www.acgme.org/>). In June and July 2012, designated institutional officials were asked via e-mail to forward the survey to the residents and fellows at their institutions for participation.

The survey consisted of 21 items designed by the authors to (1) assess the amount of time physicians devote to patient care and clinical documentation, (2) record respondent practice details and level of training, and (3) evaluate respondents' perceptions of the amount of clinical documentation required (survey provided as online supplemental material). Most questions used a 5-point Likert rating scale; ordered responses were also collected. Direct patient care was defined as the actual time the physician spends with a patient on conducting the history and physical examination, counseling, and providing treatment. Documentation requirements were defined as any written or electronic documentation that a physician completes for a patient, including patient notes, dictations, billing/coding, problem lists, medication reconciliation, disability forms, insurance company claims or authorizations, sign-offs on reports or test results, and discharge paperwork. A complete patient interaction was defined as the time spent on a patient's care, including direct patient care and related clinical documentation.

Descriptive statistics with 95% confidence intervals, paired *t* tests, and 2-sample *t* tests were used to analyze results. Ordered data, referring to the percentage of time spent by physicians, were converted to the following for analysis: 0%–20% = 1; 21%–40% = 2; 41%–60% = 3;

### What was known

Physicians-in-training spend considerable time documenting patient care; this may negatively affect learning and participation in patient care.

### What is new

A nationwide, multi-specialty study reports residents' perceptions of the time devoted to clinical documentation and the perceived impact on training.

### Limitations

Nonvalidated survey instrument; response/nonresponse bias and recall bias limit generalizability.

### Bottom line

Residents' and fellows' clinical documentation responsibilities may be a potential barrier to optimal patient care and may affect time available for educational activities.

61%–80% = 4; 81%–100% = 5. In addition, Likert rating scale data were converted to numeric data as follows: strongly disagree = 1; disagree = 2; neither agree nor disagree = 3; agree = 4; strongly agree = 5. The significance level was set at  $P < .05$  a priori.

The study protocol was approved by the Rhode Island Hospital Institutional Review Board.

## Results

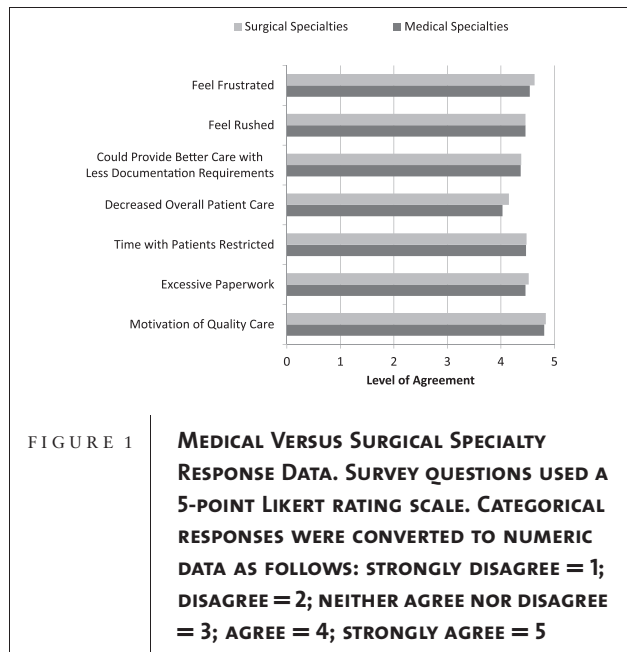
Over a 2-month period, 1515 trainees from 24 specialties completed the online survey. The postgraduate training level of respondents and specialty distribution was representative of the distribution of US residents and fellows.<sup>14,15</sup> Twenty-four specialties were represented. Residents were categorized into medical and surgical specialties for additional analyses (TABLE). Two-thirds of trainees reported working in inpatient and ambulatory settings, 23% reported working primarily with inpatients, and 10% reported working primarily with outpatients.

Nearly all residents (99%) agreed that their motivation as a physician is to provide quality patient care. However, 92% reported that clinical documentation requirements had become excessive, and 91% reported that the amount of physical time spent with patients was compromised. In addition, 73% indicated that overall patient care was negatively affected by clinical documentation requirements, and 88% reported that they could provide better quality care if clinical documentation were reduced. Furthermore, 90% indicated that they felt rushed with patients as a result of required documentation, and 93% reported feeling frustrated with the amount of documentation they were expected to complete. There were no statistically significant differences between respondents in medical and surgical specialties (FIGURE 1).

TABLE   SPECIALTY REPRESENTATION COMPARED WITH NATIONAL PERCENTAGES <sup>a</sup>		
Specialty	Percentage of Representation	American Medical Association Resident Distribution (%)
<b>Medical Specialties (78.3%)</b>		
Internal medicine	19.6	19.1
Family medicine	19.5	8.4
Pediatrics	9.7	7.1
Emergency medicine	7.9	4.6
Psychiatry	6.9	4.3
Anesthesiology	2.9	4.5
Neurology	2.7	1.7
Physical Medicine and Rehabilitation	2.1	1.1
Radiology	1.9	3.9
Medicine/pediatrics	1.8	1.2
Dermatology	1.0	1.0
Pathology	1.0	2.0
Radiation oncology	0.7	0.6
Triple board	0.4	0.1
Preventive medicine	0.1	0.2
Transitional year	0.1	0.9
<b>Surgical Specialties (21.1%)</b>		
General surgery	7.2	6.7
Orthopedic surgery	4.6	2.9
Obstetrics and gynecology	3.4	4.3
Neurological Surgery	1.5	1.0
Ophthalmology	1.4	1.1
Otolaryngology/Ear, nose, and throat	1.3	1.2
Urology	1.0	1.0
Plastic surgery	0.7	0.3
<b>Other—Unspecified (0.7%)</b>		

<sup>a</sup> National percentages were calculated from American Medical Association data on resident distribution.<sup>16</sup>

Trainees reported spending significantly more time on clinical documentation than on direct patient care (FIGURE 2). Sixty-five percent indicated that less than 40% of the clinical documentation for which they were



**FIGURE 1 | MEDICAL VERSUS SURGICAL SPECIALTY RESPONSE DATA. SURVEY QUESTIONS USED A 5-POINT LIKERT RATING SCALE. CATEGORICAL RESPONSES WERE CONVERTED TO NUMERIC DATA AS FOLLOWS: STRONGLY DISAGREE = 1; DISAGREE = 2; NEITHER AGREE NOR DISAGREE = 3; AGREE = 4; STRONGLY AGREE = 5**

responsible resulted in improved patient care, and less than 1% thought that 80% to 100% of their clinical documentation actually improved care. Most physicians (89%) reported spending 60% of their time or less on direct patient care, and 51% reported spending less than 40% of their time on direct patient care. Forty-one percent estimated spending between 41% and 60% of their time on clinical documentation, and an additional 37% estimated that they spent greater than 60% of their time on clinical documentation. There were no statistically significant differences among medical and surgical specialties in perceived time spent on direct patient care or clinical documentation.

A significant discrepancy was found between self-assessed time spent for direct patient care and physicians' reported ideal time allotment for direct patient care (FIGURE 3). A significant discrepancy was also found between the self-estimated time spent with patients and the amount of time physicians thought was expected by patients (2.5 versus 4.3, respectively,  $P < .001$ ; see Methods section for description of how ordered data were converted for analysis). The difference between the current perceived amount of time spent on clinical documentation and physicians' reported ideal time for these tasks was also statistically significant (FIGURE 3).

Eighty-nine percent of trainees reported using an electronic health record (EHR) as their primary means of documentation. Of these, 43% reported that the EHR negatively affected direct patient care by reducing time with patients, 35% indicated that it positively affected

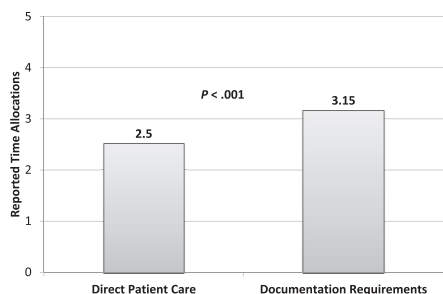


FIGURE 2

**AMOUNT OF TIME SPENT ON DIRECT PATIENT CARE AND DOCUMENTATION REQUIREMENTS. AVERAGE SELF-REPORTED TIME ALLOCATION FOR DIRECT PATIENT CARE AND DOCUMENTATION REQUIREMENTS. SURVEY QUESTIONS USED AN ORDERED RATING SCALE REPRESENTING PERCENTAGE OF TIME SPENT. ORDERED RESPONSES WERE CONVERTED TO NUMERIC DATA AS FOLLOWS: 0%–20% = 1; 21%–40% = 2; 41%–60% = 3; 61%–80% = 4; 81%–100% = 5**

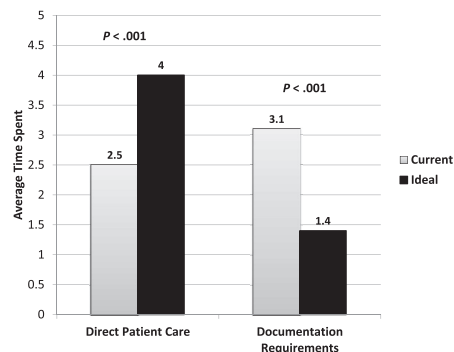


FIGURE 3

**DIFFERENCE BETWEEN CURRENT TIME SPENT AND IDEAL TIME ALLOTMENT FOR DIRECT PATIENT CARE AND DOCUMENTATION REQUIREMENTS. ORDERED RESPONSES WERE CONVERTED TO NUMERIC DATA AS FOLLOWS: 0%–20% = 1; 21%–40% = 2; 41%–60% = 3; 61%–80% = 4; 81%–100% = 5**

direct patient care and allowed more time with patients, and 22% reported that the EHR had no influence on patient care.

In their responses to the questions about the effect of clinical documentation duties on their education, 59% of respondents believed that it decreased the quality of their education, and 17% thought clinical documentation improved the quality of education. Notably, 88% of residents and fellows said that documentation requirements decreased their time available for teaching others.

## Discussion

In our study, documentation requirements were identified as potential barriers to providing quality patient care and optimal resident education. To our knowledge, this is the first study that has investigated the impact of clinical documentation demands on physicians and patient care. Most residents reported that documentation requirements were onerous and excessive, and there were perceived negative effects on time spent with patients, overall patient care, physician well-being, time available for teaching, and quality of resident education. Our cross-specialty sample offers insight that residents nationally may believe their clinical documentation workload has become excessive.

Residents' reports of feeling frustrated and rushed with patients suggests that completing required clinical documentation may contribute to physician stress, which has previously been associated with decreased job satisfaction, decreased productivity, feelings of irritability

and hostility, and patient safety concerns.<sup>14</sup> When residents think that most of this required documentation is not clinically relevant, these demands may compound stress and frustration, possibly ultimately contributing to burn-out, disruptive behavior, suboptimal patient care, and increased litigation.<sup>13,17–19</sup>

It is concerning that residents reported spending significantly more time on clinical documentation than on direct patient care. In addition to the potential for patient dissatisfaction with such priorities,<sup>1,2</sup> resident satisfaction is diminished when residents spend less time with patients. Prior studies have found that physicians devote approximately a quarter of their daily work to documentation;<sup>5,20</sup> our findings suggest this may underestimate the time residents devote to this aspect of their work. Resident time at the bedside may be limited by clinical documentation obligations, and the potential negative impact of this on patient care and learning may not be fully appreciated.

Most trainees reported a perceived decrease in the quality of their education due to clinical documentation requirements. In an environment with limited duty hours, priority must be given to clinical efficiency. Limited resident time may complicate the balance between education and efficiency, and limits on resident duty hours may also affect their preparation for assuming more senior (supervisory) roles.<sup>16</sup> Teaching by residents is also an important component of the training process,<sup>21</sup> and resident learning experiences are shown to be enhanced by supervision, role modeling, and being part of a feedback

mechanism.<sup>22–26</sup> Respondents in our study reported having less time for teaching other residents and medical students because of their clinical documentation responsibilities, and valuable learning processes may be threatened by documentation obligations and time constraints.

Our study has several limitations. First, the survey was not tested for validity or reliability. Second, we did not directly contact trainees to participate in the survey, and it was not possible to control for regional or residency size variables or the method of survey distribution to individual residents. This design also made it impossible to determine an accurate response rate. Third, reported time distribution may not accurately represent the true distribution of time spent on clinical and documentation activities. The ideal method for time distribution quantification has been studied extensively,<sup>6,7,27</sup> and some evidence shows that residents overestimate self-reported time allocations compared with use of an objective work sampling method.<sup>28</sup> Finally, although this study focuses on documentation requirements, many other factors may also act as barriers to optimal patient care, and the role of clinical documentation in this is difficult to isolate.

## Conclusion

In our multi-specialty survey spanning multiple training years, most respondents perceived clinical documentation requirements to be excessive and not clinically relevant. Furthermore, most participants believed that excessive documentation requirements limited time available for direct patient interaction, reduced educational and teaching opportunities, and compromised overall delivery of care. Future research should attempt to define the clinical value of the documentation physicians complete. In addition, the impact of documentation requirements on the care of patients, physician stress and behavior, and residency education should be studied more systematically as the health care system and documentation demands continue to evolve.

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