Duty Hour Reporting: Conflicting Values in Professionalism

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ABSTRACT

Background Duty hour limits challenge professional values, sometimes forcing residents to choose between patient care and regulatory compliance. This may affect truthfulness in duty hour reporting.

Objective We assessed residents' reasons for falsifying duty hour reports.

Methods We surveyed residents in 1 sponsoring institution to explore the reasons for noncompliance, frequency of violations, falsification of reports, and the residents' awareness of the option to extend hours to care for a single patient. The analysis used descriptive statistics. Linear regression was used to explore falsification of duty hour reports by year of training.

Results The response rate was 88% (572 of 650). Primary reasons for duty hour violations were number of patients (19%) and individual patient acuity/complexity (19%). Junior residents were significantly more likely to falsify duty hours ($R = -0.966$). Of 124 residents who acknowledged falsification, 51 (41%) identified the primary reason as concern that the program will be in jeopardy of violating the Accreditation Council for Graduate Medical Education (ACGME) duty hour limits followed by fear of punishment (34, 27%). This accounted for more than two-thirds of the primary reasons for falsification.

Conclusions Residents' falsification of duty hour data appears to be motivated by concerns about adverse actions from the ACGME, and fear they might be punished. To foster professionalism, we recommend that sponsoring institutions educate residents about professionalism in duty hour reporting. The ACGME should also convey the message that duty hour limits be applied in a no-blame systems-based approach, and allow junior residents to extend duty hours for the care of individual patients.

Introduction

Since the introduction of the Accreditation Council for Graduate Medical Education (ACGME) duty hour limits,[1] concern has been growing about the conflicts in professionalism arising from residents' obligations to patients, compliance with regulations, and truthfulness in reporting.[2–5] In this conflicting dilemma of professional values,[6,7] residents sacrifice compliance with regulations and truthfulness by underreporting duty hours to adhere to the traditional views of physician altruism and professionalism that values patient care obligations above other priorities.[2–4,8]

Physicians' professional behavior is strongly influenced by complex social interactions among peers, the program's and department's training environments, as well as the external environment, including the ACGME standards.[6,7,9] Underreporting of duty hours may be motivated by several factors, including the residents' concerns about jeopardizing their program's accreditation and wanting to avoid the significant, negative, personal consequences of training in an unaccredited program.[2] Residents also may fear reprisals from the program, colleagues, or faculty for being labeled as inefficient or incompetent because they are not able to complete assigned tasks within the duty hour limits.[2,3] To what extent each of these spheres influences residents' choices to falsify duty hour reports is not entirely clear. The purpose of our study was to determine the reasons behind why residents falsify duty hour reports.

DOI: http://dx.doi.org/10.4300/JGME-D-14-00763.1

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

Methods

Participants and Setting

The Loma Linda University Medical Center (LLUMC) and the Loma Linda–Inland Empire Consortium for Health Education (LLIECHE) sponsor 48 residency and fellowship programs. During orientation at the start of each academic year, incoming residents are familiarized with the ACGME duty hour requirements and their importance to patient safety. Reinforcement of this information occurs through the required annual online fatigue mitigation training module.

The LLUMC/LLIECHE annual graduate medical education (GME) survey has been administered for the

last 14 years.[10] Survey questions are organized into 5 domains: clinical services, attending physicians, learning opportunities, resident environment, and coordination of care. Respondents are asked to assess each item for each affiliated hospital on a 5-point Likert-type scale (0, absent; 1, poor; 2, fair; 3, good; and 4, excellent), with an option of "not applicable" for residents who did not rotate to an affiliated hospital. The survey is administered during the annual mandatory resident training sessions and as part of the exit process for graduating residents in June. No respondent identifiers are collected with the exception of the residents' program and postgraduate year (PGY).

In 2013, the authors pilot tested duty hour compliance and reporting questions, made revisions based on the pilot, and included the revised questions in the 2014 survey. Derived from a literature review and the authors' experience, residents were asked to (1) select from a list of possible reasons for duty hour noncompliance; (2) identify the primary reason for their program's duty hour violations; (3) indicate awareness of PGY-2 residents or above who used the ACGME option to extend a shift for the care of a single patient; (4) report the frequency of their duty hour violations by using a Likert-type scale of always (100%), frequently (~75%), sometimes (~50%), rarely (~25%), or never (0%); and (5) identify the primary reason for falsifying duty hour reports (only applicable for residents who reported at least "rarely" falsifying duty hours). The survey questions are available as online supplemental material. Free-text entries were included as additional comments at the end of the survey, and as an "other" option for questions on the primary reasons for violating duty hours and falsifying reports.

The Institutional Review Boards of the affiliated hospitals were consulted and an exemption was granted.

What was known and gap

Residents have been known to falsify duty hour data, but the reasons for this have not been studied.

What is new

A study found higher duty hour falsification among junior residents; common reasons were concerns about program accreditation and fear of personal repercussions.

Limitations

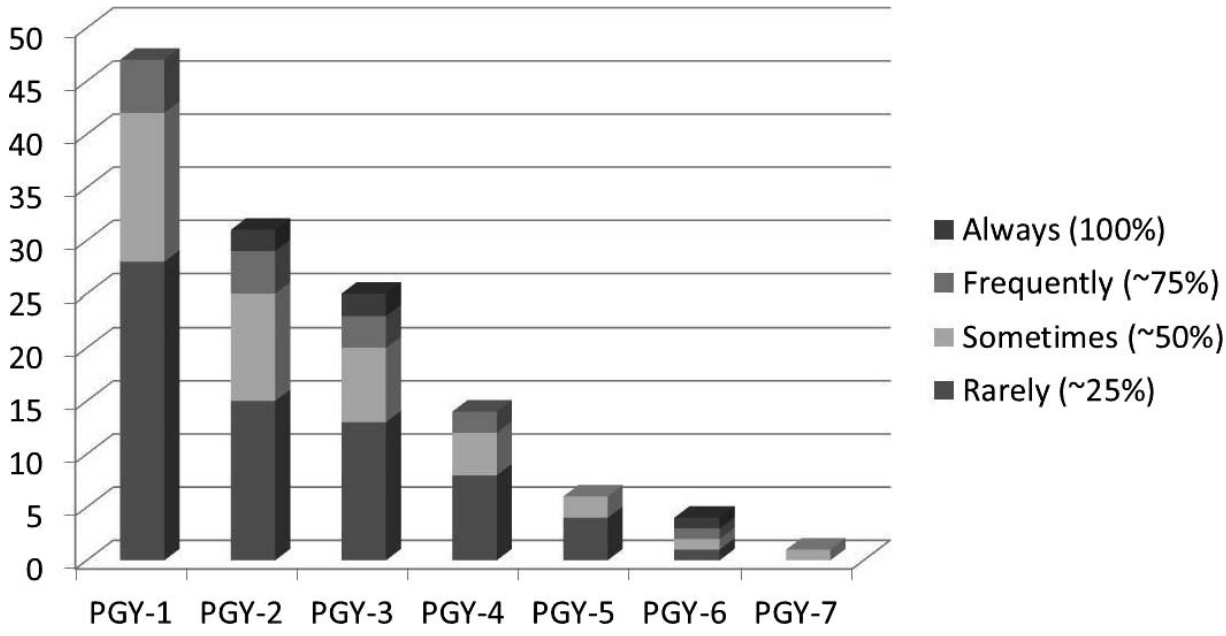
Single site study, survey lacks established validity evidence, self-reporting, and associated social desirability responding.

Bottom line

This area would benefit from further education of residents and the fostering of an environment conducive to professionalism.

TABLE 1
Contributing and Primary Factors Causing Duty Hour Violations in Loma Linda University Residency Programs

	Which of the following do you think contributes to duty hour violations in your program's required rotations (check all that apply)?		Which of the following do you think is the primary reason for duty hour violations in your program's required rotations (check one)?	
	No. of Responses	% of Total	No. of Responses	% of Total
Acuity or complexity of an individual patient/unstable patient	131	16	77	19
Too many total patients on the team	113	13	79	19
Time spent communicating with patients/family	112	13	17	4
Too many admissions on call	101	12	56	14
Time spent or inefficiency on rounds with the attending physician	96	11	46	11
Colleagues need help completing their work	74	9	22	5
Covering a staffing shortage	72	8	18	4
Lack of an organized approach to managing team's workload	56	7	33	8
Other	35	4	53	13
Time spent in attending teaching conferences	27	3	4	1
Time spent teaching students or other residents	26	3	2	0.5
Total	843		407	



FIGURE

Residents' Frequency of Duty Hour Violations by Postgraduate Year

Note: The Figure shows the frequency of duty hour violations by postgraduate year (PGY) among those residents admitting to falsifying duty hours at a frequency of always (100%), frequently (~75%), sometimes (~50%), or rarely (~25%). $R = -0.966$ for trend of total number of residents inaccurately reporting by PGY.

Analysis

The statistics are mainly descriptive. Linear regression was used to test the trend of falsifying duty hour reports by PGY. The authors also reviewed written anonymous comments to provide qualitative information to complement the quantitative analysis.

Results

The response rate was 88% (572 of 650). The distribution of respondents by PGY was 139 PGY-1s (24%), 136 PGY-2s (24%), 117 PGY-3s (20%), 90 PGY-4s (16%), 54 PGY-5s (9%), 32 PGY-6s (6%), and 3 PGY-7s (< 1%).

The factors most often contributing to duty hour violations were acuity or complexity of an individual patient/unstable patient, the number of patients for the team, time spent communicating with patients/family, and the number of admissions while on call (TABLE 1). The primary reasons most often cited were too many total patients for the team and acuity or complexity of an individual patient/unstable patient (TABLE 1).

Despite care of a single high-acuity patient cited as a common reason for violating duty hour limits, most residents were either unware of, or did not know of, any PGY-2 resident or above who used the ACGME stipulation to extend duty hours for the care of a single patient. Of the 541 residents who responded to the question on awareness of extending shifts for the care of a single patient, 167 (31%) responded "yes," 305 (56%) responded "no," and 69 (13%) responded "I don't know what this is."

The majority of residents did not falsify duty hours. However, 128 of 549 (23%) reported falsifying data. The reported frequencies were "never" (77%, 421 of 549), "rarely" (13%, 69 of 549), "sometimes" (7%, 39 of 549), "frequently" (3%, 15 of 549), and "always" (1%, 5 of 549). The programs with the highest percentages of residents falsifying duty hours were neurology (58%, 7 of 12), general surgery (57%, 17 of 30), internal medicine (41%, 30 of 73), orthopedic surgery (39%, 9 of 23), obstetrics and gynecology (30%, 9 of 30), and pediatrics (29%, 17 of 58).

Duty hour falsification was highest among junior residents and decreased in higher PGY levels ($R = -0.966$; FIGURE).

Of the 124 residents who admitted duty hour falsification (4 did not respond to the question), 51 (41%) identified the primary reason as "the program will be in jeopardy for violating duty hours from the ACGME" (TABLE 2). The second most common primary reason was fear of punishment (27%, 34 of 124). These 2 reasons accounted for more than two-thirds of the primary reasons residents falsify duty hours.

Free-text entries corroborated the notion of patient care responsibilities as the primary reason for duty

TABLE 2
Primary Reasons for Falsifying Duty Hour Reports Among Loma Linda University Residents

Which of the following was the primary reason for you inaccurately reporting duty hours?	Rarely	Sometimes	Frequently	Always	Total[a]	% of Total
The program will be in jeopardy for violating duty hours from the Accreditation Council for Graduate Medical Education	31	16	4	0	51	41
I fear punishment for violating duty hours	14	13	5	2	34	27
Other	10	6	3	2	21	17
Pressure from a supervisor (eg, senior resident, attending physician, program director, department chair)	5	1	3	0	9	7
The program will be in jeopardy for violating duty hours from administration	6	2	0	1	9	7
Total	66	38	15	5	124	

[a] Total number of residents includes those residents who admitted to falsifying duty hours at a frequency of always (100%), frequently (~75%), sometimes (~50%), and rarely (~25%).

hour violations: "Sometimes the work just needs to get done before you leave, and most violations would be when I have to stay late to finish a case or work . . ." The comments also underscored conflicts in professionalism: "I would rather get all the work done and make sure all the patients are taken care of. When I graduate, there will be no duty hour requirements. I view any violation of duty hours as necessary for patient care and am perfectly willing to do it, but don't want my program to be in jeopardy due to this." Many comments expressed concern over personal or programmatic retribution: "My responsibility is to my patients. Oftentimes, I can't complete everything that needs to be done in 16 hours, but that is not going to stop me from getting the patient what they need. I don't want to get the program in trouble, nor do I want to be scolded for putting patient care first."

Discussion

While others have documented falsification of duty hour reporting,[8] we were interested in the reasons why residents falsify duty hour reports. In this study, 41% of the residents who falsified duty hour reports identified the primary reason as concern of adverse actions by the ACGME, and an additional 27% feared personal punishment. Combined, two-thirds of the residents who falsified duty hours did so over concerns of retribution to themselves or their program. Far fewer residents cited pressure from senior residents, attending physicians, program directors, and department chairs. Most important, we found the least experienced residents most often falsified duty hours.

Residents face a professional dilemma, in which the traditional sense of physician altruism may conflict with the "new" professionalism that requires accurate reporting of duty hours.[1,3,7] When faced with these competing priorities, falsifying duty hour reports may be a less objectionable breach of professionalism than complying with duty hour limits at the expense of patient care.[2] This predicament underscores the importance of context and the influence of social interactions in interpreting professional behavior.[9] Failure to address these conflicts may result in unintended consequences, including lying in other settings, such as patient communication,[3] hostility toward the concept of professionalism education,[7] or perceiving lying as appropriate behavior to resolve cognitive dissonance when actions are inconsistent with beliefs and values.[11]

Professionalism should not be viewed as an inherent trait, but as a dynamic, contextual, and learned behavior that requires critical thinking and skills that must be practiced in an organizational environment that fosters the desired behaviors.[6,7,9] If residents are expected to be compliant and truthful with duty hours, the GME community must provide residents with the necessary skills to identify, report, and resolve competing values and barriers to behaving professionally. We suggest that the ACGME reevaluate its approach to duty hour violations and consider promoting a systems-based approach with a focus on the early years of residency training. This effort should include allowing duty hour extension to interns for the care of individual patients and conveying the message to programs that honest duty hour reporting will not jeopardize accreditation. Second, the ACGME and GME community should consider adopting a theoretical construct that guides the teaching of professionalism in the duty hour era. The theory of planned behavior offers a systematic

approach to professionalism and posits that attitudes, social norms, and perceived ability to perform strongly influence intention and subsequent behavior.[12] We have incorporated these principles into a workshop using clinical vignettes combined with a teaching tool entitled "The Professionalism Matrix" that reflects the multidimensional nature of professionalism. This program has been valuable in exploring the competing values and attitudes found in commonly encountered situations during residency and medical school education.[13]

Our study has limitations. First, the survey was conducted at a single institution with a relatively small sample. Second, responses are self-reported and may be subject to recall bias. Third, interpretation bias may have occurred in reporting duty hour falsification frequency, although we attached specific numerical approximations to minimize this variation. Fourth, social desirability bias may play a role in the residents' responses. To mitigate this effect, the survey was Internet based and was administered anonymously, techniques known to minimize social desirability bias.[14,15] Finally, our residents reported lower rates of inaccurate reporting (23%) compared to previous studies (43%).[3,8] Possible explanations for this include the timing of the study, 3 years after implementation of the 2011 duty hour standards when work environments may have improved; factors unique to our institution; or an environment in which residents do not feel comfortable reporting violations. Replication of our study on a broader scale would more fully assess factors associated with inaccurately reporting duty hours.

Despite these limitations, our data perhaps could be extrapolated to other GME programs. Similar to previously published data from a large national sample, our data found that duty hour violations occur most frequently in internal medicine, surgery, pediatrics, and obstetrics and gynecology.[8] Additionally, we confirmed the inverse relationship between the frequency of inaccurately reporting duty hours and PGY level seen in a national survey.[8] Also similar to other studies, our residents cited patient care as the primary reason for violating duty hours[2,3,16] and fear of losing program accreditation as a primary reason for falsifying duty hours.[2,3]

Conclusion

We found that duty hour falsification is more common among junior residents and appears to be motivated by concerns about adverse actions from the ACGME and residents' fear they might be punished. We recommend that the ACGME convey to programs that duty hour monitoring should use a systems-based, nonpunitive approach aimed at improving training. Furthermore, institutional and program leaders should educate residents about appropriate use of the duty hour standards to enhance professionalism, foster learning, and promote problem-solving approaches to duty hour compliance and reporting. As Lesser and colleagues[9] so eloquently stated, "Striving to create environments that cultivate professionalism in practice is perhaps the ultimate expression of professionalism."

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

Conflict of interest: The authors declare they have no competing interests.

The authors would like to thank the VA Loma Linda Health Care System for their support with resources and for the use of their facilities.

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Received December 8, 2014; revision received March 11, 2015; accepted March 30, 2015.