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Brief Observation: A National Study of Burnout Among Internal Medicine Clerkship Directors

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Burnout is a syndrome of emotional exhaustion, depersonalization, and a sense of low personal accomplishment that leads to decreased effectiveness at work.¹ Prevalent in medical students^{2,3} and residents,⁴ burnout is associated with suicidal ideation,⁵ decreases in empathy,⁶ and medical errors.⁷ Although the causes of burnout among physicians-in-training are unknown, modeled burnout by academic faculty may be a contributing factor. Despite this speculation, little is known about the prevalence or consequences of burnout in internal medicine clerkship directors who instruct, advise, and counsel medical students and are responsible for organizing students' experiences in the field of internal medicine. To explore the experience of burnout among internal medicine clerkship directors, we conducted a cross-sectional, multi-institutional study to evaluate the prevalence of burnout and its relationship to faculty attitudes toward students.

METHODS

In the spring of 2007, all 110 institutional members of the Clerkship Directors in Internal Medicine (CDIM) were asked to complete a survey either electronically or in a paper format. Institutional members of CDIM are typically the internal medicine clerkship director at their respective US or Canadian medical schools. Participation was elective and responses were anonymized.

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Participants were blinded to any specific hypothesis of the study. The Institutional Review Board at the Uniformed Services University of the Health Sciences F. Edward Hébert School of Medicine approved this study.

The survey included questions about demographic information, professional responsibilities, school-related characteristics, and attitudes toward students. Burnout was measured using the Maslach Burnout Inventory (MBI).⁸ The instrument has 3 subscales to evaluate each of the domains of burnout: emotional exhaustion (EE), depersonalization (DP), and low personal accomplishment (PA). According to convention, a high score for medical professionals on the DP or EE subscale was considered an indicator of burnout.⁸ The 2 questions about attitudes toward students ("I don't really care what happens to some of my students" and "Working with students directly puts too much stress on me") were modeled after questions on MBI about patient care. These questions immediately followed the MBI questions and used the same response options that asked faculty to indicate how often they felt this way.

Statistical Analysis

The primary analysis involved descriptive summary statistics for estimating the prevalence of burnout. Responses to the questions about attitudes toward students are presented in 2 categories for simplicity and as a result of small sample size. For both questions, responses were collapsed into respondents having no feelings of burnout (never and a few times a year or less) and having such feelings (once a month or less, a

few times a month, once a week, a few times a week, and every day). We used Wilcoxon-Mann-Whitney test (continuous variables) or chi-squared test (categorical variables) to evaluate for differences between dependent and independent variables. All tests were 2-sided with type I error rates of 0.05. To obtain effect size, odds ratios were calculated. All analyses were calculated using JMP 6 (SAS Institute, Cary, NC).

RESULTS

The survey was completed by 82 CDIM members (a response rate of 75%). Four respondents did not complete an adequate number of the MBI items to be scored, resulting in a final sample for analysis of 78. Table 1 shows the demographic and work-related characteristics of the final sample. No relationship existed among age, sex, academic rank, years in primary educational role, number of medical educational roles, number of matriculates, and hours of protected time for educational leadership role (all $P > .05$).

More than half of clerkship directors (47 of 76, 62%) met criteria for burnout. Forty-six percent (36 of 78) had high EE, 41% (31 of 75) high DP, and 4.1% (3 of 74) low PA. Mean scores for EE (25.8, standard deviation 8.85) and DP (9.3, standard deviation 3.35) were in the moderate range for health care professionals.⁸ Responders had, on average, a high sense of PA (mean 44.69, standard deviation 4.52).

On univariate analysis, having 10 or fewer hours per week of protected time for their primary educational role was associated with burnout (odds ratio [OR] 2.95, 95% confidence interval [CI], 1.05-9.23, $P = .048$) and high DP (OR 5.09, 95% CI, 1.87-14.80, $P = .002$) in comparison to having 11 or more hours. Both academic rank and years in primary educational role were associated with EE. Assistant professors were more likely than full professors to have high EE (OR 5.63, 95% CI, 1.57-23.01, $P = .01$). Faculty with less experience (ie, fewer years in primary educational role) also were more likely to report high EE (OR 0.90 per year in primary role, 95% CI, 0.81-0.99, $P = .04$). There were no differences in burnout based on sex, age, academic rank, years in primary educational role, number of medical educational roles, or number of matriculates (data not shown).

An attitude of not caring what happens to some of their students was more common among clerkship directors with burnout (OR 4.91, 95% CI, 1.45-22.74, $P = .02$), high EE (OR 3.18, 95% CI, 1.14-9.57,

$P = .03$), or high DP (OR 3.82, 95% CI, 1.33-11.76, $P = .01$). Reporting that working directly with students is too stressful was more common among faculty with burnout (OR 2.75, $P = .04$) or high EE (OR 3.14, $P = .02$).

PERSPECTIVES VIEWPOINTS

- Burnout is measured by 3 domains: emotional exhaustion, depersonalization, and low personal accomplishment.
- More than half of internal medicine clerkship directors meet the criteria for burnout, mostly resulting from a lack of time to devote to clerkship responsibilities.
- Because clerkship directors serve in a mentorship capacity, their own burnout could influence burnout prevalence in medical students.
- Clerkship director burnout could also influence medical students' decisions to pursue a career in internal medicine.

DISCUSSION

This nationwide study demonstrates a high prevalence of burnout (62%) among internal medicine clerkship directors. Burnout was more prevalent among responders with 10 or fewer hours per week designated for their primary educational role. Low academic rank and fewer years in primary role also were associated with high EE. Responders with burnout were 2-4 times more likely to report attitudes of lack of empathy toward students (ie, "I don't really care what happens to some of my students") and of students be-

ing too burdensome (ie, "Working with students directly puts too much stress on me"). These findings suggest that burnout may affect clerkship directors' attitudes toward students.

The apprentice model of medical training in the United States is built upon the premise that students learn to adopt attitudes and behaviors (good and bad) modeled by faculty mentors. Social learning theorists, such as Albert Bandura, PhD, posit that behaviors are learned through observation and that behaviors are more likely to be adopted if modeled by people of admired status or by people who are similar to the observer.⁹ Given the status of clerkship directors as teachers, evaluators, and leaders, burnout among this segment of the faculty may have a particularly powerful influence on learners. The high prevalence of burnout and related attitudes toward students raises the possibility of faculty modeling burnout for students and contributing to the high prevalence of burnout among students.³ Also, as experiences on internal medicine rotations have been shown to influence the attractiveness of internal medicine as a specialty choice,¹⁰ exposure to clerkship directors who experience burnout also might adversely influence students' decision to pursue a career in internal medicine.¹¹

How should academic institutions respond to this challenge? While our exploratory study cannot directly address this question, the Alliance for Clinical Education recommends that 25% of a full-time equivalent is

Table Demographic and Work-related Characteristics of 78 Clerkship Directors of Internal Medicine Institutional Members, 2007

Variable	Result
Age (mean, SD)	45.6 (7.2)
Sex (n, %)	
Male	48 (62.3)
Female	29 (37.7)
Missing	1
Academic rank (n, %)	
Assistant Professor (n, %)	23 (29.5)
Associate Professor (n, %)	35 (44.9)
Professor (n, %)	20 (25.6)
Clerkship Director (n, %)	75 (96.2)
Primary educational leadership role (n, %)*	
Clerkship Director	65 (83.3)
Ambulatory Block Clerkship Director	1 (0.1)
Preclinical Clerkship Director	1 (.01)
Vice Chair for Education	2 (.03)
Division or Section Chief, General Internal Medicine	4 (.05)
Other	2 (.03)
Missing	3 (.04)
Years in current educational leadership role (mean, SD)	8.0 (4.9)
Hours protected for educational leadership role	
10 hours or less	26 (33.8)
More than 10 hours	51 (66.2)
Missing	1
Number of medical educational roles (mean, SD)†	3.29 (1.82)
Number of matriculating medical students (mean, SD)	145.1 (46.3)

*Although 75 identified themselves as clerkship directors, 65 identified being a clerkship director as their primary educational leadership position within their institution. The remainder identified their primary role as listed in the Table. Responders in the other category had designated their primary role as an Associate Program Director and Hospitalist.

†Choices included: Clerkship Director, Ambulatory Block Director, Director of clerkship at separate geographic site, Inpatient Block Director, Associate Clerkship Director, Vice Chair for Education, Faculty member involved in the clerkship, medical school dean's office, Introduction to Clinical Medicine Director, Second-year Preclinical Clerkship Director, Fourth-year clerkship Director, Postgraduate Resident Clinic Preceptor, Core educational Graduate Medical Education faculty (per Residency Review Committee definition), Associate Program Director or Program Director, Chair of Department, Fellowship Director, and Other.

the minimum time required for clerkship directors to conduct administrative aspects of running a clerkship.¹² In our study, one third of clerkship directors had 10 hours or less per week for clerkship-related duties, and these individuals were nearly 3 times more likely to suffer burnout than their colleagues—a finding in support of the Alliance for Clinical Education guidelines. In fact, inadequate time for responsibilities was the

most important factor associated with burnout in our study and was even more important than years of experience, academic rank, and other variables explored. As our study was limited to internal medicine clerkship directors, these findings cannot necessarily be generalized to other specialties. Specialty organizations associated with other core clerkships may want to conduct a survey similar to what was done in this study.

As with all cross-sectional studies, we cannot determine whether factors explored are causally related to burnout. Nonetheless, the high prevalence of burnout among responding clerkship directors, its association with suboptimal attitudes toward students, and other well-established personal and professional consequences of burnout^{1,13} should motivate department chairs to address this issue.

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