

AAIM Perspectives

AAIM is the largest academically focused specialty organization representing departments of internal medicine at medical schools and teaching hospitals in the United States and Canada. As a consortium of five organizations, AAIM represents department chairs and chiefs; clerkship, residency, and fellowship program directors; division chiefs; and academic and business administrators as well as other faculty and staff in departments of internal medicine and their divisions.

Finding Meaning: Internal Medicine Clerkship Director Burnout and Professional Fulfillment



Temple A. Ratcliffe, MD, MS-HPed,^a Harish Jasti, MD,^b Jordan Ortiz, BS,^c Camilla Curren, MD,^d Chavon Onumah, MD,^e Jonathan Ripp, MD, MPH,^b Amber T. Pincavage, MD^f

^aUniversity of Texas Health Science Center at San Antonio; ^bIcahn School of Medicine at Mount Sinai, New York, NY; ^cAlliance for Academic Internal Medicine, Alexandria, Va; ^dOhio State University College of Medicine, Columbus; ^eGeorge Washington University School of Medicine and Health Sciences, Washington, DC; ^fUniversity of Chicago Division of the Biological Sciences, Pritzker School of Medicine, Chicago, Ill.

KEYWORDS: Burnout; Clerkship Director; Faculty wellness

INTRODUCTION

Burnout is prevalent among medical students, residents, and practicing physicians,¹⁻⁷ and is recognized as having adverse consequences, including patient outcomes such as reduced patient satisfaction⁸ and adverse patient safety events.⁹ There are also personal consequences related to professionalism lapses; burnout is associated with interpersonal conflicts within and outside of the workplace.⁷ Physicians with leadership roles in medical education are not immune to burnout.^{5,6,10}

In 2007, internal medicine clerkship directors (CDs) were assessed for burnout. At that time, 62% met predefined criteria for burnout as measured by the Maslach Burnout Inventory (MBI).⁶ While the consequences of burnout in medical education leadership have not been specifically studied, early work in other education and health care contexts suggests the potential for adverse learner and health care workforce effects.^{11,12}

Mitigating burnout almost certainly requires a systems-level approach, but some individual factors, such as resilience and professional fulfillment, may at least partially protect against some consequences of burnout.¹³ Thus far, resilience and professional fulfillment, potentially associated or mitigating factors for burnout, have not been assessed in internal medicine CDs.

With this context in mind, the purpose of this study was to reassess the prevalence of burnout among internal medicine CDs and to investigate measures of resilience and professional fulfillment in this population to explore potential aggravating and ameliorating factors associated with burnout.

METHODS

Since 1999, Clerkship Directors in Internal Medicine (CDIM), a charter organization of the Alliance for Academic Internal Medicine (AAIM), has surveyed members on issues affecting clinical undergraduate medical education. The CDIM Survey and Scholarship committee conducts an annual fall survey of core CDs. The 2019 survey consisted of a section on CD demographics and medical school characteristics and 3 thematic sections: faculty wellness, clerkship grade appeals, and clerkship programmatic evaluation.

Funding: None.

Conflicts of Interest: None.

Authorship: All authors had access to the data and a role in writing the manuscript.

Requests for reprints should be addressed to Temple A. Ratcliffe, MD, Joe R. and Teresa Lozano Long School of Medicine, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78229-3900.

E-mail address: ratcliffe@uthscsa.edu

Survey Development and Content

The thematic section on faculty wellness consisted of 12 questions (Appendix, available online), including multiple choice, 5-point Likert scales, select multiple that apply (select 3 that apply), and open-text response options, which included skip and display logic patterns.

Due to item nonresponse and multiple conditional logic pathways, denominators for some questions do not equal the total number of respondents. The results of several questions were analyzed using validated scoring tools. A subset of the Stanford Professional Fulfillment Index (PFI)¹⁴ was used to measure levels of professional fulfillment: the 2-item Connor-Davidson Resilience Scale (CD-RISC-2)¹⁵ was utilized to describe levels of resilience, and the MBI Human Services Survey for Medical Personnel¹⁶ was used to classify whether respondents met criteria for burnout. In addition to the MBI, the faculty wellness section authors wrote questions aimed to distinguish whether CDs were feeling burned out due to their role or due to their interactions with students. These questions also aimed to determine the factors that cause burnout. The authors also included free-text response options to further understand the point of view of the respondents (Appendix). The survey section authors conducted pre-testing and pilot testing in the target population; the survey was reviewed by 6 non-committee CDIM members, the CDIM Survey and Scholarship Committee, and the CDIM Council. All reviewers had experience in academic clerkship leadership and teaching undergraduate medical students.

Survey Administration

The survey was administered by e-mail on September 4, 2019 to 138 CDIM members classified as “clerkship directors” in the AAIM membership database. Each CD represented a single medical school that had full Liaison Committee on Medical Education (LCME) accreditation as of October 2019. All participants received a unique survey participation URL from the Qualtrics Surveys (version 08-2019; Qualtrics XM, Provo, Utah). Non-respondents received 4 e-mail reminders between October and December 2019 prior to survey closure on December 9, 2019. All survey respondents participated voluntarily and were not offered incentives for participation.

IRB Approval

This study and its protocol (Number: 19-AAIM-108) were deemed exempt by Pearl Institutional Review Board (IRB; registered with the US Department of Health and Human Services Office for Human Research Protections as IRB00007772) based on US Food and Drug Administration (FDA) 21 CFR 56.104 and 45CFR46.104(b)(2): (2).

PERSPECTIVES VIEWPOINTS

- Burnout is prevalent among internal medicine clerkship directors and similar to general physician prevalence.
- Burnout solely due to the internal medicine clerkship role may be lower than overall burnout.
- Aspects of the clerkship director role may provide meaning and mitigate burnout.

Statistical Analysis

A complete population file was created prior to survey distribution to collect information on demographics and medical school characteristics. All respondents were assigned unique identifiers to hide the identity of the respondents from AAIM staff. Data were deidentified prior to analysis using Stata SE 16.0 (StataCorp LLC, College Station, Texas).

Descriptive statistics were used to create a summary results file, and associations among categorical variables were determined by Pearson’s Chi-squared or Fisher’s exact test ($\alpha = 0.05$). For continuous variables, Mann-Whitney non-parametric test ($\alpha = 0.05$) and the Equality-of-Medians Test ($\alpha = 0.05$) were used to determine associations between means and medians, respectively. In cases with continuous variables with more than 2 categories, the one-way analysis of variance was used to investigate associations with the mean, and the Kruskal-Wallis Equality-of-Population Rank Test was used to understand whether associations existed between medians.

For the MBI Human Services Survey for Medical Personnel (Q8), scoring keys for emotional exhaustion (EE), depersonalization (DP), and personal accomplishment subscales were utilized. Respondents that reported an EE score ≥ 27 or a DP score of ≥ 10 met burnout criteria, in keeping with previously published convention.¹⁶

PFI scores were determined by how respondents answered Q5.¹⁴ Each response option in Q5 was assigned a value from 0 to 4, and the average of the respondents’ answers determined the PFI score. Respondents with higher PFI scores were considered to be more professionally fulfilled.

CD-RISC-2 scores were based on respondent answers to Q7.¹⁵ All response options in Q7 were assigned numeric values that were averaged into a final CD-RISC-2 score. Higher CD-RISC-2 scores indicated that respondents have higher levels of resilience.

Additionally, the authors aimed to understand levels of burnout among respondents, so CDs were provided the opportunity to report whether they felt burned out solely due to their role as CD via the 2-

item MBI. Individuals were invited to provide, by free-text responses, what about their role as CD contributed to burnout. Two investigators (TR and HJ) performed thematic analysis¹⁷ for these free-text responses. For each data set, investigators first familiarized themselves with the data and then generated initial descriptive codes.¹⁸ These codes were then grouped into subthemes and themes, which were revised, refined, and reported.¹⁷

RESULTS

One hundred thirteen of 138 CDs completed the survey for a response rate of 82%. There were no associations related to under- or over-representation between respondents and non-respondents across core demographics or institutional characteristics, such as medical school type (public or private), census bureau region, AAIM database self-reported sex, or medical school class size.¹⁹

Measures of Burnout, Professional Fulfillment, and Resilience

Thirty-three of 113 respondents (29.2%) met criteria for EE and 51.3% (58/113) for DP; 58.4% (66/113) met criteria for burnout with either EE or DP (defined as $EE \geq 27$ or $DP \geq 10$). The reported EE and DP scores had means of 20.5 (SD 11.3, min 1, max 47) and 10.4

(SD 4.6, min 2, max 26), respectively. Personal accomplishment scores were relatively high, with a mean of 32 (SD 6.2, min 4, max 40). Measures of professional fulfillment (PFI) and resilience (CD-RISC-2) as well as their associations with burnout ($EE \geq 27$ or $DP \geq 10$) are shown in Table 1.

There were no associations with respondent sex, academic rank, percent full-time equivalent (FTE), time in role, or medical school type or size with burnout. Of these demographics, there was an association found between sex and EE subscale scores, with a higher percentage of females (22 of 59 females compared with 11 of 43 males) meeting EE criteria ($P = .019$). Resilience (as measured by CD-RISC) was not associated with burnout. However, higher burnout prevalence was associated with lower professional fulfillment scores, as measured by the professional fulfillment subset of the PFI (Table 2¹⁵).

The prevalence of burnout solely due to the CD role, as measured by 2-item MBI, was 17.7% (20/113), compared with 26.6% (30/113) when comparing the same 2 questions from the MBI Human Services Survey for Medical Personnel that did not specifically refer to students. Fifty-three of 113 respondents opted to answer the prompt “What about the clerkship director’s (or associate/co-clerkship director’s) role contributes to your burnout?” Responses to this open-ended question were grouped into themes (Table 3).

Table 1 Association of Work-Related Characteristics and Measures of Burnout Among Respondents

Work-Related Characteristics	Respondents (n = 113) n (Column %)	Met Criteria for Burnout n (Column %)	P Value*
Sex†			
Female	59 (52.5)	33 (50.0)	.648
Male	54 (47.8)	33 (50.0)	
Academic Rank			
Assistant Professor	41 (36.3)	25 (37.9)	.739
Associate Professor	51 (45.1)	27 (40.9)	.380
Professor	21 (18.6)	14 (21.2)	.469
Years in current role			
1 y or less	24 (21.2)	13 (19.7)	.758
2-4 y	31 (27.4)	17 (25.8)	.148
5-6 y	16 (14.2)	8 (12.1)	.424
7-10 y	20 (17.7)	13 (19.7)	.340
11-37 y	22 (19.5)	15 (22.7)	.392
FTE Support (n = 104)			
0-20%	23 (22.1)	13 (21.3)	.704
21%-30%	29 (27.9)	20 (32.8)	.261
31%-40%	22 (21.2)	13 (21.3)	.929
41%-50%	27 (26)	13 (21.3)	.092
51%-60%	3 (2.9)	2 (3.28)	.625

FTE = full-time equivalent.

*Bivariate test between total “Respondents” for each category and Clerkship Directors that “Met Criteria for Burnout for the Full MBI” using the Adjusted Wald (Pearson) chi-squared test with one degree of freedom: $\alpha \leq 0.05$; Fisher’s exact test used when anticipated cells sizes were 5 or less.

†Self-reported, from Alliance for Academic Internal Medicine membership database in October 2019.

Table 2 Well-Being Measures in Relation to Burnout

Well-Being Measures in Relation to Burnout	Respondents (n = 113) n (Mean ± SD)	Met Criteria for Burnout n (Mean ± SD)	P Value*
Clerkship director years in role	113 (6.6 ± 6.7)	66 (7.0 ± 6.7)	.465
Resilience via CD-RISC-2 item	113 (6.7 ± 1.5)	66 (6.6 ± 1.4)	.635
Professional fulfillment via PFI	113 (2.8 ± 0.7)	66 (2.5 ± 0.7)	< .001
	n (Column %)	n (Column %)	P Value†
Considered resigning	39 (34.5)	27 (69.2)	.072
Likely to resign (n = 39)			
Likely	9 (23.1)	6 (66.7)	.904
Neutral	6 (15.4)	5 (83.3)	.339
Unlikely	24 (61.5)	16 (66.7)	.593

CD-RISC-2 = 2-item Connor-Davidson Resilience Scale; PFI = Professional Fulfillment Index.

*Mann-Whitney nonparametric test used to compare means between respondents who “Met [and did not meet] Criteria for Burnout for the Full MBI” with one degree of freedom: $\alpha \leq 0.05$.

†Bivariate test between respondents that “Met [and did not meet] Criteria for Burnout for the Full MBI” using the Adjusted Wald (Pearson) chi-squared test with one degree of freedom: $\alpha \leq 0.05$.

Sources: Davidson JRT. Connor-Davidson Resilience Scale (CDRISC). Accessible at www.cdrisc.com.¹⁵

Maslach, Christina and Susan E. Jackson. 1981. MBI-Human Services Survey. Published by Mind Garden, Inc., www.mindgarden.com.

Professional Fulfillment Index: Copyright 2016 Board of Trustees of the Leland Stanford Jr. University. Non-profit organizations are permitted to use this survey instrument without modification for research or program evaluation exclusively.

Consideration of Resignation

Over the past year, 34.5% (39/113) of respondents reported considering resigning as CD, and 23.1% (9/39) of those who expressed consideration stated that they were “somewhat likely” or “very likely” to resign during the next 12 months. When presented with a list of options, the most common reasons related to considering resigning chosen by respondents were “feeling overburdened with administrative work” (44.7%, 17/38), navigating formal and informal “grade conflicts” (39.5%, 15/38), dealing with “institutional pressures associated with your position” (31.6%, 12/38), “feeling that your career interests are not being supported” (29%, 11/38), and handling “student factors,” such as increasing class sizes and placement issues (29%, 11/38).

Although not statistically significant, respondents who considered resigning had a higher prevalence of burnout than those who had not considering resigning (Table 2). Similarly, lower PFI scores were associated with consideration of resigning (mean: 2.4) compared with not considering resigning (mean: 3.0) ($P < .001$). While resilience (CD-RISC scores) was not associated with burnout, resilience scores were associated with consideration of resignation (resignation likelihood for respondents who reported likely: 7.2, neutral: 7.3, and unlikely: 6.3, $P = .030$).

Mitigation of Burnout

Responses to the question “To what extent do you think the following interventions would improve well-being, if available at your institution?” are listed in the Figure.

DISCUSSION

Our study shows that an elevated prevalence of burnout, as defined by DP and EE measures, persists among internal medicine CDs similar to those found in 2007, and in national samples of physicians.^{1,5-7} Although our survey was administered prior to the COVID pandemic, it is unlikely that the pandemic positively impacted this prevalence. In addition to assessing burnout, our study also assessed measurements of professional fulfillment and resilience for the first time in internal medicine CDs. Our measurement of professional fulfillment was similar to a recent sample of physicians,¹⁴ and lower professional fulfillment in our respondents was associated with a higher prevalence of burnout. Resilience measures in our sample were similar to those found in the general population and were not associated with burnout.^{20,21}

We found that the prevalence of burnout solely from the internal medicine CD role may be lower than overall burnout in CDs, suggesting that development of burnout is likely not limited to factors exclusive to the role. While professional fulfillment was not associated with lower burnout prevalence, it was associated with lower consideration of resignation, which suggests professional fulfillment could be a protective factor against resigning from the internal medicine CD role. In fact, nearly all respondents reported that it was moderately, very, or completely true that their work was meaningful to them (96.5% on the applicable PFI item). It may be that the meaningful aspects of the CD role are protective and mitigate burnout. Although from a different context, these findings are reminiscent of concurrent high levels of burnout and job satisfaction found in emergency physicians.³

Table 3 Factors from Clerkship Director Role Reported to Contribute to Burnout

Themes	Codes	Representative Quotations
Challenges with clerkship processes	Assessment and grading	
	Limitations with assessment methods	"Trying to make assessment, especially clinical evaluations, as reliable and valid as possible." "Assessment is flawed."
	Need for frequent faculty and resident reminders to finish student assessments	"It's hounding the faculty every 2 months (our block length) to complete evaluations; and then the evaluations are very challenging to incorporate (for the usual reasons) despite many attempts at faculty development."
	Overemphasis on standardized testing	"Emphasis on scoring well on exams over learning patient care."
	Grade administration and appeals	"Student anxiety over grades and the endless meetings with them about it and being taken to formal grade appeals in front of the school committee . . ."
Interpersonal communication with students	Negative interpersonal interactions with students	"This is the rare student but those few difficult students take a great deal of effort and emotional toll."
	Students challenging clerkship rules or expectations	"I try so hard to communicate clear expectations and requirements, but much of my time is spent justifying these requirements to students who question them - for example, when they disagree with my handling of an absence request or late assignment according to course policy."
Mismatch between expectations, resources, and authority	Tension between clerkship and institutional goals	
	Unrealistic institutional expectations	"Increasing demands placed on me without any additional compensation in the form of time (most important) or monetary (less important)."
	Perception that education is not valued by institution	"I find that working in an environment in which my values as an educator are not highly valued is a problem."
Issues related to programmatic evaluation and accreditation	Imperfect and limited programmatic evaluation metrics	"A goal that has such a narrow average that small numbers of students results in low results and when curricular changes, expansions, and organizational restructure affect overall perceptions this leads to changes that make efforts appear underperforming."
	LCME and accreditation issues	"However, medical school systems prioritize student opinions over outcomes (e.g., promotion tied to student evaluation of faculty, LCME accreditation process that uses AAMC student graduation questionnaire opinions on topics such as feedback, students who don't match/graduate look poorly on school)."
Insufficient authority and resources	Lack of authority	"Additionally, directives and policies from above are often imposed without consultation or discussion, and sometimes in direct opposition to the opinion of the clerkship."
	Insufficient time for increasing educational administrative responsibilities	"... duties (grading exams, tracking student performance data, monitoring faculty completion of evaluations, generating robust end of clerkship summative evaluation statements) became administrative chores that felt excessive and had to be completed in the evenings and on weekends."
	Insufficient resources faculty and students	"...without resources to proactively address barriers, limitations, and struggles from students leaves myself managing learning ability issues, mental health issues, unaddressed test taking problems, etc."
	Clinical workload demands	"I think that most of my frustration and symptoms of burnout comes from balancing my clinical work with administrative responsibilities. I work in hospital medicine, and having a long day on service and then coming up and staying up late answering emails to students or finishing grades etc is very difficult."

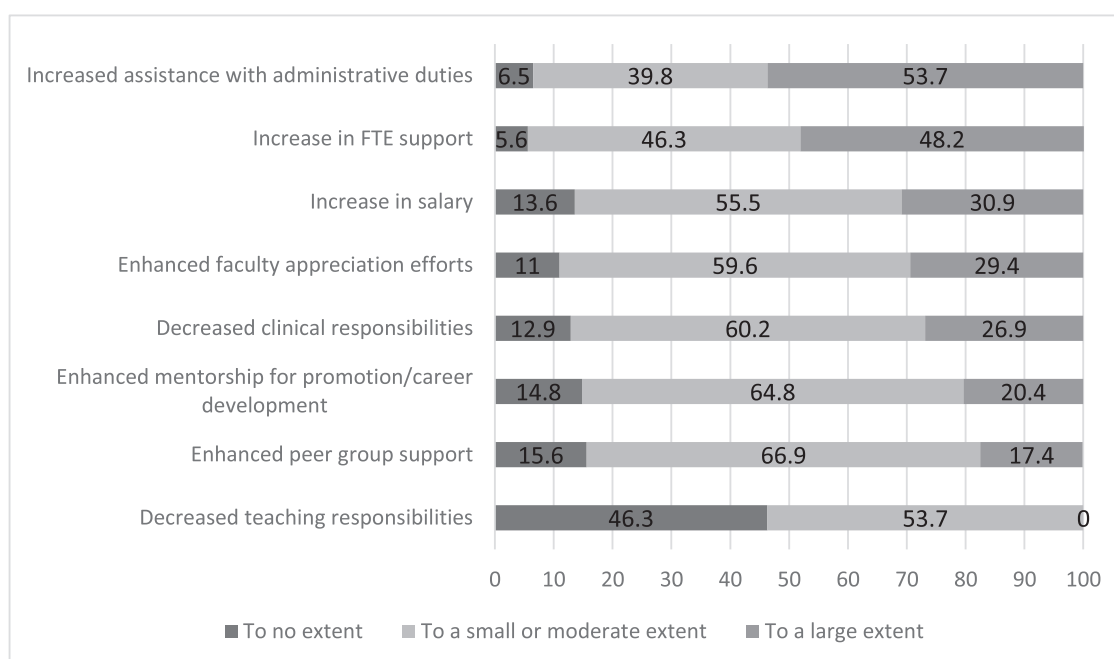


Figure Potential institutional interventions reported to improve well-being.

Similarly to internal medicine CDs, in 2018, 33% of internal medicine residency program directors experienced burnout (as measured by the 2-item MBI) and 48% considered resigning in the past year (compared with 34.5% who considered resigning in our study).⁵ Also similar to program directors, who have a median time in the role of 4 to 6 years,⁵ a substantial proportion of CDs are relatively new in their roles, with nearly 50% serving as CD for 4 years or fewer (Table 1). Of note, relatively high levels of burnout and attrition in medical education leadership are not necessarily universal across specialties. A 2018 survey of psychiatry CDs found lower rates of burnout (14%-22%).¹⁰ While tension between burnout and job satisfaction may be relatively common among physicians, the consequences from burnout remain an area of concern.^{9,22,23}

While internal medicine CDs have significant clinical responsibilities and likely share some root causes for burnout with other physician groups, some factors contributing to burnout may be different. Our findings identified factors unique to the internal medicine CD role that our respondents reported as contributors to burnout (Table 3). The 2 main themes—challenges with clerkship processes and mismatch between expectations, resources, and authority—represent work system factors that exist on multiple organizational levels. These work system factors are analogous to factors identified for physicians in general in a recent National Academy of Medicine conceptual model of clinician burnout and well-being.²⁴ What the National Academy of Medicine burnout model and a similar conceptual model focusing on a systems approach to improving resiliency¹³ make clear is that solutions to complex

problems require more than initiatives targeting individual factors exclusively and necessitate interventions at multiple system levels.^{22,24}

Our respondents identified several university system-level improvements that might mitigate burnout (Figure). The top 2 suggestions, increased protected time and administrative support, both acknowledge issues of time, authority, and resources highlighted in both of our themes (Table 3). While we acknowledge that there was no association seen with burnout and FTE devoted to the CD role, only 3% of respondents reported receiving FTE support at levels currently recommended by the Alliance for Clinical Education for CD support (50% FTE).²⁵ We postulate that the lack of an association between burnout and levels of FTE was due to low FTE support across the board for our survey population. Regardless of the roles of protected time and administrative support, we suspect that improving CD burnout will require looking beyond individual and local factors and also take into account the complex relationship between internal medicine CDs and the different levels of the systems in which they work.

There are a few limitations to note in our study. First, while not strictly a limitation, it is worth noting that the timing of our survey was in 2019, prior to the COVID-19 pandemic. This pandemic universally strained health care professionals and put unique stresses on medical educators. Consequences of the pandemic on burnout and measures of well-being should be studied. Additionally, the measurement of burnout solely due to the CD role was via the 2-item MBI, which is limited and may not be directly comparable with burnout via the full MBI. Finally, race or

ethnicity of our participants was not included in our demographic data, so we were unable to analyze for associations between these independent variables and burnout, professional fulfillment, or resilience.

Burnout remains prevalent among internal medicine CDs. Similar to physicians in general, a multilevel systems approach will be needed to mitigate burnout and promote resilience. While a number of factors associated with burnout overlap with the general population of physicians, there are additional factors unique to the internal medicine CD role that will also need to be addressed.

ACKNOWLEDGMENT

The authors wish to acknowledge Michael Kisielewski, MA, AAIM Assistant Director of Surveys and Research, Alliance for Academic Internal Medicine, for his help in survey development, administration, and data collection.

References

- Shanafelt TD, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med* 2012;172(18):1377–85.
- Shanafelt TD, Bradley KA, Wipf JE, Back AL. Burnout and self-reported patient care in an internal medicine residency program. *Ann Intern Med* 2002;136(5):358–67.
- Arora M, Asha S, Chinnappa J, Diwan AD. Review article: burnout in emergency medicine physicians. *Emerg Med Australas* 2013;25(6):491–5.
- Dyrbye LN, West CP, Satele D, et al. Burnout among u.s. medical students, residents, and early career physicians relative to the general u.s. population. *Acad Med* 2014;89(3):443–51 [Published online].
- O'Connor AB, Halvorsen AJ, Cmar JM, et al. Internal medicine residency program director burnout and program director turnover: results of a national survey. *Am J Med* 2019;132(2):252–61.
- Dyrbye LN, Shanafelt TD, Thomas MR, Durning SJ. Brief observation: a national study of burnout among internal medicine clerkship directors. *Am J Med* 2009;122(3):310–2.
- Dyrbye LN, West CP, Satele D, Sloan JA, Shanafelt TD. Work/Home conflict and burnout among academic internal medicine physicians. *Arch Intern Med* 2011;171(13):1207–9.
- Windover AK, Martinez K, Mercer MB, Neuendorf K, Boissy A, Rothberg MB. Correlates and outcomes of physician burnout within a large academic medical center. *JAMA Intern Med* 2018;178(6):856–8.
- Salyers MP, Bonfils KA, Luther L, et al. The relationship between professional burnout and quality and safety in healthcare: a meta-analysis. *J Gen Intern Med* 2017;32(4):475–82.
- Rakofsky JJ, Dallaghan GB, Balon R. Measuring burnout among psychiatry clerkship directors. *Acad Psychiatry* 2018;42(1):68–72.
- Oberle E, Schonert-Reichl KA. Stress contagion in the classroom? The link between classroom teacher burnout and morning cortisol in elementary school students. *Soc Sci Med* 2016;159:30–7.
- Shanafelt TD, Makowski MS, Wang H, et al. Association of burnout, professional fulfillment, and self-care practices of physician leaders with their independently rated leadership effectiveness. *JAMA Netw Open* 2020;3(6):e207961.
- Vercio C, Loo LK, Green M, Kim DI, Beck Dallaghan GL. Shifting focus from burnout and wellness toward individual and organizational resilience. *Teach Learn Med* 2021;33(5):568–76.
- Trockel M, Bohman B, Lesure E, et al. A brief instrument to assess both burnout and professional fulfillment in physicians: reliability and validity, including correlation with self-reported medical errors, in a sample of resident and practicing physicians. *Acad Psychiatry* 2018;42(1):11–24.
- Davidson J. Connor-Davidson Resilience Scale (CD-RISC) Manual. Available at: www.cd-risc.com. Accessed February 8, 2022.
- Maslach C, Jackson SE, Leiter MP, Schaufeli WB, Schwab RL. *Maslach Burnout Inventory Manual*. 4th ed Menlo Park, CA: Mind Garden, Inc.; 2018.
- Kiger ME, Varpio L. Thematic analysis of qualitative data: AMEE Guide No. 131. *Med Teach* 2020;42(8):846–54.
- Saldana J. *The Coding Manual for Qualitative Researchers*. 4th ed Thousand Oaks, CA: SAGE Publications, Inc.; 2021.
- Packer CD, Duca NS, Dhaliwal G, et al. Grade appeals in the internal medicine clerkship: a national survey and recommendations for improvement. *Am J Med* 2021;134(6):817–822.e7.
- Campbell-Sills L, Forde DR, Stein MB. Demographic and childhood environmental predictors of resilience in a community sample. *J Psychiatr Res* 2009;43(12):1007–12.
- Campbell-Sills L, Stein MB. Psychometric analysis and refinement of the Connor-Davidson Resilience Scale (CD-RISC): validation of a 10-item measure of resilience. *J Trauma Stress* 2007;20(6):1019–28.
- West CP, Dyrbye LN, Shanafelt TD. Physician burnout: contributors, consequences and solutions. *J Intern Med* 2018;283(6):516–29.
- Dewa CS, Loong D, Bonato S, Trojanowski L. The relationship between physician burnout and quality of healthcare in terms of safety and acceptability: A systematic review. *BMJ Open* 2017;7(6):e015141.
- National Academies of Sciences Engineering and Medicine. *Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being*. Washington, DC: The National Academies Press; 2019.
- Pangaro L, Bachicha J, Brodkey A, et al. Expectations of and for clerkship directors: a collaborative statement from the alliance for clinical education. *Teach Learn Med* 2003;15(3):217–22.

APPENDIX: 2019 CDIM ANNUAL SURVEY LANDING PAGE AND THEMATIC QUESTIONS ON "FACULTY WELLNESS"

Start of Block: Introduction

Q1 2019 CDIM Annual Survey of Core Clerkship Directors

For over 20 years, CDIM has been surveying its membership to understand the clinical clerkship in internal medicine (IM) and to advance undergraduate medical education. The aggregated CDIM Survey summary results are presented at academic medicine professional conferences, in peer-reviewed journals, and at www.im.org/data/cdim-surveys. In addition to three thematic sections, this survey includes a brief section on demographics as well as characteristics of your medical school. Depending on your responses, the survey should take **approximately 20-25 minutes to complete**. **Immediately after completing the survey, you will receive your results by email.**

At any point, you may exit and return later without losing your data. Please use the unique survey link in your email invitation; you will be returned to where you left off. **DO NOT USE your browser's "Back" or "Forward" buttons to navigate the survey. Instead, you must use the survey "<<BACK" and "NEXT>>" buttons at the bottom of each page. Please complete this survey by the deadline provided in your email invitation.** After that date, you will not be able to submit your responses.

This study (Number: 19-AAIM-108) is **exempt** by Pearl IRB (U.S. DHHS OHRP #IRB00007772) under FDA 21 CFR 56.104 and 45CFR46.104(b)(2). You have been invited to participate because you are an IM core clerkship director (or associate/co-clerkship director) whose medical school is LCME-accredited (full or preliminary) and a CDIM member as of October 2019. **Participation is voluntary.** Refusal to participate will not affect your or your institution's CDIM membership. The survey software will alert you if you leave certain questions empty, but you may skip any that you do not wish to answer. Before the CDIM Survey and Scholarship Committee accesses the survey dataset, all personal and institutional identifiers will be removed by Alliance for Academic Internal Medicine (AAIM) Surveys staff, who serve as principal investigators, hold valid human subjects research training certificates, and will manage data collection.

If you encounter technical problems or are not the most appropriate person to complete this survey, please contact AAIM Surveys staff at surveys@im.org or **703-341-4540**. Questions about survey content may be directed to the CDIM Survey Committee Chair via surveys@im.org as well. If you feel that your rights as a participant have not been upheld, please contact Pearl IRB at info@pearlirb.com or 317-602-5917.

*****ESSENTIAL FOR NAVIGATING THE SURVEY*****

1. This survey is compatible with most tablet devices, but if you encounter technical problems please check that your device's operating system is updated. **Use of smartphones is discouraged**, due to programming that might cause unexpected errors or survey navigation problems. Regardless of the device you use, your data will be collected using Secure Socket Layer encryption.
2. **For further technical assistance and support FAQs** about navigating this survey, please click [here](#) (a separate browser tab/window will open).

Thank you for helping to advance your profession!

Q2 By clicking below, you acknowledge that your participation in this survey is voluntary.

- ☐ Begin the survey: Click "PROCEED" (below) to continue. (1)

End of Block: Introduction

Start of Block: Section I. Faculty Wellness

Q4 Section I. Faculty Wellness

The questions in this section are meant to better assess wellness and well-being among internal medicine core clerkship directors (or co-directors / associate directors). Please answer to the best of your ability. As with all questions in this survey, AAIM Surveys personnel will de-identify your responses immediately after survey closure. Thank you!

Q5 Note: Professional Fulfillment Index: Copyright 2016 Board of Trustees of the Leland Stanford Jr. University. Non-profit organizations are permitted to use this survey instrument without modification for research or program evaluation exclusively.

The Professional Fulfillment Index was asked in its entirety.

Trockel M, Bohman B, Lesure E, et al. A Brief Instrument to Assess Both Burnout and Professional Fulfillment in Physicians: Reliability and Validity, Including Correlation with Self-Reported Medical Errors, in a Sample of Resident and Practicing Physicians. *Acad Psychiatry*. 2018;42(1):11-24. doi:10.1007/s40596-017-0849-3

Q6 What do you find most fulfilling in your job as a clerkship director (or associate / co-clerkship director)?

Please elaborate to the best of your ability, as understanding this matter is crucial to the data that we are gathering. Your personal responses never will be associated with or identified back to you.

Q7 Note: Davidson JRT. Connor-Davidson Resilience Scale (CD-RISC). Accessible at www.cdrisc.com.

The Connor-Davidson Resilience Scale 2 (CD-RISC-2) was asked in its entirety.

Davidson J. Connor-Davidson Resilience Scale (CD-RISC) Manual. Published online 2019. accessible at www.cd-risc.com

Using the scale below, please indicate how you've felt over the past month.

Q8 Note: Maslach, Christina and Susan E. Jackson. 1981. MBI-Human Services Survey. Published by Mind Garden, Inc., www.mindgarden.com.

The MBI Human Services Survey for Medical Personnel – MBI-HSS (MP) was asked in its entirety.

Maslach C, Jackson SE, Leiter MP, Schaufeli WB, Schwab RL. *Maslach Burnout Inventory Manual*. Fourth ed. Mind Garden, Inc.; 2018. <https://www.mindgarden.com/314-mbi-human-services-survey>

Q9 Note: For the following question, “work” refers exclusively to your role as a *clerkship director (or associate / co-clerkship director)*, and “people” refers to *students only*.

How often do you feel...?

The 2-item MBI Human Services Survey for Medical Personnel – MBI-HSS (MP) was asked in its entirety.

Maslach C, Jackson SE, Leiter MP, Schaufeli WB, Schwab RL. *Maslach Burnout Inventory Manual*. Fourth ed. Mind Garden, Inc.; 2018. <https://www.mindgarden.com/314-mbi-human-services-survey>

Q10 What about the clerkship director's (or associate / co-clerkship director's) role contributes to your burnout?

If you are not feeling burned out, simply check below.

☐ *I am not feeling burned out (1)*

Display This Question:

If Q10 != 1

Q11 Please elaborate to the best of your ability, as understanding this matter is crucial to the data that we are gathering. Your personal responses never will be associated with or identified back to you.

Q12 To what extent do you think the following interventions would improve well-being, if available at your institution?

	To no extent (1)	To a small extent (2)	To a moderate extent (3)	To a large extent (4)	N/A (5)
Increased assistance with administrative duties (Q12_1)	•	•	•	•	•
Decreased clinical responsibilities (Q12_2)	•	•	•	•	•
Decreased teaching responsibilities (Q12_3)	•	•	•	•	•
Enhanced mentorship for promotion / career development (Q12_4)	•	•	•	•	•
Enhanced faculty appreciation efforts (Q12_5)	•	•	•	•	•
Enhanced peer group support (Q12_6)	•	•	•	•	•
Increased attention to inclusivity / diversity (Q12_7)	•	•	•	•	•
Increase in FTE support (Q12_8)	•	•	•	•	•
Increase in salary (Q12_9)	•	•	•	•	•
Other (please specify): (Q12_10)	•	•	•	•	•

Q13 In the past year, have you considered resigning as clerkship director?

- ☐ No (1)
- ☐ Yes (2)

Display This Question:
If Q13 = 2

Q14 How likely are you to resign in the next 12 months?

- ☐ Very likely (1)
- ☐ Somewhat likely (2)
- ☐ Neutral (3)
- ☐ Somewhat unlikely (4)
- ☐ Very unlikely (5)

Display This Question:
If Q13 = 2

Q15 What are the top reasons as to why you are considering resigning? You may select up to three.

- ☐ Institutional pressures associated with your position (1)
- ☐ Feeling overburdened with administrative work (2)
- ☐ Do not enjoy the duties associated with the position (3)
- ☐ Feeling that your career interests are not being supported (4)
- ☐ Student factors (e.g., increasing class size and placement issues) (5)

- ☐ Grade determination (6)
 - ☐ Grade conflicts (e.g., informal and informal grade appeals) (7)
 - ☐ To pursue administrative/leadership opportunities (8)
 - ☐ Work related to accreditation (e.g., LCME, committees, meetings) (9)
 - ☐ To pursue professional development and/or educational opportunities (10)
 - ☐ To spend more time with family (11)
 - ☐ Personal health problems (12)
 - ☐ Other (please specify): (13)
-

**Q16 You have completed ONE of FOUR sections!
End of Block: Section I. Faculty Wellness**

Q80 Please look for the aggregated survey results, which will be presented at the next AAIM Academic Internal Medicine Week in April 2020 and then online via your IM.org account at www.im.org/data/cdim-surveys.

Upon submitting this survey you will receive a confirmation that your results were successfully submitted, as well as your individual results via email. If you have further questions about this survey, please contact Alliance for Academic Internal Medicine Surveys staff at surveys@im.org or 703-341-4540.

******Please click "SUBMIT" to complete the survey.******

End of Block: End of Survey