

## ORIGINAL RESEARCH

# A National Comparison of Burnout and Work-Life Balance Among Internal Medicine Hospitalists and Outpatient General Internists

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**BACKGROUND:** General internists suffer higher rates of burnout and lower satisfaction with work-life balance than most specialties, but the impact of inpatient vs outpatient practice location is unclear.

**METHODS:** Physicians in the American Medical Association Physician Masterfile were previously surveyed about burnout, depression, suicidal ideation, quality of life, fatigue, work-life balance, career plans, and health behaviors. We extracted and compared data for these variables for the 130 internal medicine hospitalists and 448 outpatient general internists who participated. Analyses were adjusted for age, sex, hours worked, and practice setting.

**RESULTS:** There were 52.3% of the hospitalists and 54.5% of the outpatient internists affected by burnout ( $P = 0.86$ ). High scores on the emotional exhaustion subscale (43.8% vs 48.1%,  $P = 0.71$ ) and on the depersonalization subscale (42.3% vs 32.7%,  $P = 0.17$ ) were common but similar in fre-

quency in the 2 groups. Hospitalists were more likely to score low on the personal accomplishment subscale (20.3% vs 9.6%,  $P = 0.04$ ). There were no differences in symptoms of depression (40.3% for hospitalists vs 40.0% for outpatient internists,  $P = 0.73$ ) or recent suicidality (9.2% vs 5.8%,  $P = 0.15$ ). Rates of reported recent work-home conflict were similar (48.4% vs 41.3%,  $P = 0.64$ ), but hospitalists were more likely to agree that their work schedule leaves enough time for their personal life and family (50.0% vs 42.0%,  $P = 0.007$ ).

**CONCLUSIONS:** Burnout was common among both hospitalists and outpatient general internists, although hospitalists were more satisfied with work-life balance. A better understanding of the causes of distress and identification of solutions for all internists is needed. *Journal of Hospital Medicine* 2014;9:176–181. © 2014 Society of Hospital Medicine

An increasingly robust body of literature has identified burnout as a substantial problem for physicians across specialties and practice settings.<sup>1–4</sup> Burnout, a work-related condition characterized by emotional exhaustion, depersonalization, and lack of a sense of personal accomplishment,<sup>5</sup> has been tied to negative consequences for patients, physicians, and the medical profession including medical errors,<sup>6</sup> poor physician health,<sup>7,8</sup> and decreased professionalism.<sup>9</sup> Studies of burnout among general internists have pointed to time pressures, lack of work control, and difficult patient encounters as possible contributors.<sup>10,11</sup>

Burnout has been demonstrated to affect a sizable proportion of hospitalists, with prevalence estimates from prior studies varying from 12.9% to 27.2%, although nearly all studies of US hospitalists have relied on single-item instruments.<sup>12–15</sup> Hospital-based physicians have represented a rapidly expanding segment of the internist workforce for more than a decade,<sup>14</sup> but studies of the impact of inpatient vs

outpatient practice location on burnout and career satisfaction are limited. A meta-analysis of the impact of practice location on burnout relied almost exclusively on noncomparative studies from outside the United States.<sup>15</sup> A recent study of US physician burnout and satisfaction with work-life balance showed that general internists expressed below average satisfaction with work-life balance and had the second highest rate of burnout among 24 specialties.<sup>4</sup> However, this report did not differentiate between general internists working in inpatient vs outpatient settings.

We therefore examined burnout, satisfaction with work-life balance, and other aspects of well-being among internal medicine hospitalists relative to outpatient general internists, using a national sample developed in partnership with the American Medical Association.

## METHODS

### Physician Sample

As described previously,<sup>4</sup> the American Medical Association Physician Masterfile, a nearly complete record of US physicians, was used to generate a sample of physicians inclusive of all specialty disciplines. The 27,276 physicians who opened at least 1 invitation e-mail were considered to have received the invitation to participate in the study. Participation was voluntary, and all responses were anonymous. For this

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analysis, internal medicine hospitalists were compared with general internists reporting primarily outpatient practices. The physician sample provided information on demographics (age, sex, and relationship status) and on characteristics of their practice. Burnout, symptoms of depression, suicidal ideation in the past 12 months, quality of life (QOL), satisfaction with work-life balance, and certain health behaviors were evaluated as detailed below.

### Burnout

Burnout among physicians was measured using the Maslach Burnout Inventory (MBI), a validated 22-item questionnaire considered the gold standard tool for measuring burnout.<sup>5,16</sup> The MBI has subscales to evaluate each domain of burnout: emotional exhaustion, depersonalization, and low personal accomplishment. Because other burnout studies have focused on the presence of high levels of emotional exhaustion or depersonalization as the foundation of burnout in physicians,<sup>17-19</sup> we considered physicians with a high score on the depersonalization or emotional exhaustion subscales to have at least 1 manifestation of professional burnout.

### Symptoms of Depression and Suicidal Ideation

Symptoms of depression were assessed using the 2-item Primary Care Evaluation of Mental Disorders,<sup>20</sup> a standardized and validated assessment for depression screening that performs as well as longer instruments.<sup>21</sup> Recent suicidal ideation was evaluated by asking participants, "During the past 12 months, have you had thoughts of taking your own life?" This item was designed to measure somewhat recent, but not necessarily active, suicidal ideation. These questions have been used extensively in other studies.<sup>22-25</sup>

### Quality of Life and Fatigue

Overall QOL and mental, physical, and emotional QOL were measured by a single-item linear analog scale assessment. This instrument measured QOL on a 0 ("as bad as it can be") to 10 ("as good as it can be") scale validated across a wide range of medical conditions and populations.<sup>26-28</sup> Fatigue was measured using a similar standardized linear analog scale assessment question, for which respondents indicated their level of fatigue during the past week.<sup>29</sup> The impact of fatigue on daily activities such as driving was also evaluated.

### Satisfaction With Work-Life Balance and Career Plans

Satisfaction with work-life balance was assessed by the item, "My work schedule leaves me enough time for my personal/family life," with response options "strongly agree," "agree," "neutral," "disagree," or "strongly disagree." Individuals who indicated "strongly agree" or "agree" were considered to be satisfied with their work-life balance, whereas those who

indicated "strongly disagree" or "disagree" were considered to be dissatisfied with their work-life balance. Experience of work-home conflicts was assessed as in prior research.<sup>4</sup> Participants were also asked about plans to change jobs or careers.

### Health Behaviors

A limited set of health and wellness behaviors was addressed in the survey to provide insight into other aspects of physician well-being. These included whether respondents had a primary care provider and questions concerning routine screening and alcohol and substance use. Alcohol use was assessed using the Alcohol Use Disorders Identification Test, version C (AUDIT-C).<sup>30</sup> An AUDIT-C score of at least 4 for men and at least 3 for women indicates alcohol misuse, and a score of at least 5 for men and at least 4 for women indicates alcohol abuse and possible dependence.<sup>30</sup>

### Statistical Analysis

Standard descriptive summary statistics were used to characterize the physician samples. Associations between variables were evaluated using the Kruskal-Wallis test (for continuous variables) or  $\chi^2$  test (for categorical variables). All tests were 2-sided, with a type I error level of 0.05. Multivariate analysis of differences between hospitalists and outpatient general internists was performed using multiple linear or logistic regression for continuous or categorical data, respectively. Covariates in these models included age, sex, weekly work hours, and practice setting. All of the analyses were performed using SAS version 9.2 (SAS Institute, Inc., Cary, NC).

## RESULTS

In the full survey across all specialties, 7288 physicians (26.7%) provided survey responses.<sup>4</sup> There were 448 outpatient internists and 130 internal medicine hospitalists who agreed to participate. Demographically, hospitalists were younger, worked longer hours, and were less likely to work in private practice than outpatient general internists (Table 1).

### Distress and Well-Being Variables

High levels of emotional exhaustion affected 43.8% of hospitalists and 48.1% of outpatient general internists (odds ratio [OR]: 0.91, 95% confidence interval [CI]: 0.56-1.48), and high levels of depersonalization affected 42.3% of hospitalists and 32.7% of outpatient general internists (OR: 1.42, 95% CI: 0.86-2.35). Overall burnout affected 52.3% of hospitalists and 54.5% of outpatient general internists (OR: 0.96, 95% CI: 0.58-1.57). None of these factors differed statistically in multivariate models adjusted for factors known to be associated with burnout, including sex, age, weekly work hours, and practice setting ( $P = 0.71, 0.17, \text{ and } 0.86$ , respectively; Table 2). However, low levels of personal accomplishment were reported by 20.3% of hospitalists and 9.6% of

**TABLE 1.** Demographics of Responding Internal Medicine Hospitalists and Outpatient General Internal Medicine Physicians

Characteristic	Hospitalists (n = 130)	Outpatient General Internists (n = 448)	P
Sex, n (%)			0.56
Male	86 (66.2%)	284 (63.4%)	
Female	44 (33.8%)	164 (36.6%)	
Age, mean (SD)	46.9 (12.4)	53.6 (10.2)	<0.001
Median	45.0	55.0	
Years in practice, mean (SD)	14.0 (12.0)	21.6 (10.7)	<0.001
Median	10.0	22.0	
Hours worked per week, mean (SD)	55.0 (18.1)	50.0 (15.1)	0.04
Median	50.0	50.0	
Practice setting, n (%)			<0.001
Private practice/hospital	36 (31.0%)	303 (69.2%)	
Academic medical center	37 (31.9%)	41 (9.4%)	
Other (including veterans hospital and active military practice)	43 (37.1%)	94 (21.5%)	

NOTE: Abbreviations: SD, standard deviation.

**TABLE 2.** Distress and Well-Being Results for Internal Medicine Hospitalists vs Outpatient General Internists

Variable	Hospitalists (n = 130)	Outpatient General Internists (n = 448)	P*
<b>Burnout</b>			
Emotional exhaustion high ( $\geq 27$ )	57/130 (43.8%)	215/447 (48.1%)	0.71
Mean (SD)	24.7 (12.5)	25.4 (14.0)	
Median	24.9	26.0	
Depersonalization high ( $\geq 10$ )	55/130 (42.3%)	146/447 (32.7%)	0.17
Mean (SD)	9.1 (6.9)	7.5 (6.3)	
Median	7.0	6.0	
Personal accomplishment low ( $\leq 33$ )	26/128 (20.3%)	43/446 (9.6%)	0.04
Mean (SD)	39.0 (7.6)	41.4 (6.0)	
Median	41.0	43.0	
High burnout (EE $\geq 27$ or DP $\geq 10$ )	68/130 (52.3%)	244/448 (54.5%)	0.86
<b>Depression</b>			
Depression screen +	52/129 (40.3%)	176/440 (40.0%)	0.73
Suicidal thoughts in past 12 months	12/130 (9.2%)	26/445 (5.8%)	0.15
<b>Quality of life</b>			
Overall mean (SD)	7.3 (2.0)	7.4 (1.8)	0.85
Median	8.0	8.0	
Low (<6)	21/130 (16.2%)	73/448 (16.3%)	
Mental mean (SD)	7.2 (2.1)	7.3 (2.0)	0.89
Median	8.0	8.0	
Low (<6)	23/130 (17.7%)	92/448 (20.5%)	
Physical mean (SD)	6.7 (2.3)	6.9 (2.1)	0.45
Median	7.0	7.0	
Low (<6)	35/130 (26.9%)	106/448 (23.7%)	
Emotional mean (SD)	7.0 (2.3)	6.9 (2.2)	0.37
Median	7.0	7.0	
Low (<6)	30/130 (23.1%)	114/448 (25.4%)	
<b>Fatigue</b>			
Mean (SD)	5.8 (2.4)	5.9 (2.4)	0.57
Median	6.0	6.0	
Fallen asleep while driving (among regular drivers only)	11/126 (8.7%)	19/438 (4.3%)	0.23

NOTE: Abbreviations: DP, depersonalization; EE, emotional exhaustion; SD, standard deviation.

\*Adjusted for age, sex, weekly work hours, and practice setting.

**TABLE 3.** Work-Life Balance and Career Variables for Internal Medicine Hospitalists vs Outpatient General Internists

Variable	Hospitalists (n = 130)	Outpatient General Internists (n = 448)	P*
Work-home conflict in last 3 weeks	62/128 (48.4%)	183/443 (41.3%)	0.64
Work-home conflict resolved in favor of:			0.79
Work	37/118 (31.4%)	131/405 (32.2%)	
Home	15/118 (12.7%)	43/405 (10.6%)	
Meeting both needs	66/118 (55.9%)	231/405 (57.0%)	
Work schedule leaves enough time for personal life/family			0.007
Strongly agree	20 (15.4%)	70 (15.7%)	
Agree	45 (34.6%)	117 (26.3%)	
Neutral	21 (16.2%)	66 (14.8%)	
Disagree	27 (20.8%)	119 (26.7%)	
Strongly disagree	17 (13.1%)	73 (16.4%)	
Missing	0	3	
Likelihood of leaving current practice			0.002
Definite	17 (13.1%)	34 (7.6%)	
Likely	21 (16.2%)	53 (11.9%)	
Moderate	21 (16.2%)	67 (15.0%)	
Slight	38 (29.2%)	128 (28.7%)	
None	33 (25.4%)	164 (36.8%)	
Missing	0	2	
Would choose to become physician again	81/130 (62.3%)	306/441 (69.4%)	0.86

\*NOTE: Adjusted for age, sex, weekly work hours, and practice setting.

outpatient general internists (OR: 1.93, 95% CI: 1.02–3.65,  $P = 0.04$ ).

Approximately 40% of physicians in both groups screened positive for depression (OR: 0.92, 95% CI: 0.56–1.51,  $P = 0.73$ ). In addition, 9.2% of hospitalists reported suicidal ideation in the last 12 months compared to 5.8% of outpatient internists (OR: 1.86, 95% CI: 0.80–4.33,  $P = 0.15$ ) (Table 2).

Overall QOL and QOL in mental, physical, and emotional domains were nearly identical in the 2 groups (Table 2). Fatigue was also similar for hospitalists and outpatient general internists, and 8.5% of hospitalists reported falling asleep in traffic while driving compared to 4.2% of outpatient internists (OR: 1.76, 95% CI: 0.70–4.44,  $P = 0.23$ ).

**Work-Life Balance and Career Variables**

Experience of recent work-home conflicts was similar for hospitalists and outpatient general internists (Table 3). However, hospitalists were more likely to agree or strongly agree that their work schedule leaves enough time for their personal life and family (50.0% vs 42.0%, OR: 2.06, 95% CI: 1.22–3.47,  $P = 0.007$ ).

Hospitalists were more likely to express interest in leaving their current practice in the next 2 years, with 13.1% vs 7.6% reporting “definite” plans to leave and 29.2% vs 19.5% reporting at least “likely” plans to leave (OR: 2.31, 95% CI: 1.35–3.97,  $P = 0.002$ ). Among those reporting a likely or definite plan to leave, hospitalists were more likely to plan to look for

a different practice and continue to work as a physician (63.2% vs 39.1%), whereas outpatient general internists were more likely to plan to leave medical practice (51.9% vs 22.0%,  $P = 0.004$ ). Hospitalists with plans to reduce their work hours were more likely than their outpatient colleagues to express an interest in administrative and leadership roles (19.4% vs 12.1%) or research and educational roles (9.7% vs 4.0%,  $P = 0.05$ ).

### Health Behavior Variables

Hospitalists were less likely to report having a primary care provider in the adjusted analyses (55.0% vs 70.3%, OR: 0.49, 95% CI: 0.29-0.83,  $P = 0.008$ ). Use of illicit substances was uncommon in both groups (94.6% of hospitalists and 96.0% of outpatient general internists reported never using an illicit substance (OR: 0.87, 95% CI: 0.31-2.49,  $P = 0.80$ ). Symptoms of alcohol abuse were similar between the 2 groups (11.7% and 13.3%, respectively, OR: 0.64, 95% CI: 0.30-1.35,  $P = 0.24$ ), but symptoms of alcohol misuse were more common among outpatient general internists (34.2% vs 21.9%, OR: 1.75, 95% CI: 1.01-3.03,  $P = 0.047$ ).

## DISCUSSION

The primary result of this national study applying well-validated metrics is that the overall rates of burnout among hospitalists and outpatient general internal medicine physicians were similar, as were rates of positive depression screening and QOL. Although these groups did not differ, the absolute rates of distress found in this study were high. Prior research has suggested that possible explanations for these high rates of distress include excessive workload, loss of work-associated control and meaning, and difficulties with work-home balance.<sup>4</sup> The present study, in the context of prior work showing that general internists have higher rates of burnout than almost any other specialty, suggests that the front-line nature of the work of both hospitalists and outpatient general internists may exacerbate these previously cited factors. These results suggest that efforts to address physician well-being are critically needed for both inpatient and outpatient physicians.

Despite the noted similarities, differences between hospitalists and outpatient general internists in certain aspects of well-being merit further attention. For example, the lower rate of personal accomplishment among hospitalists relative to outpatient generalists is consistent with prior evidence.<sup>15</sup> The reasons for this difference are unknown, but the relative youth and inexperience of the hospitalists may be a factor. US hospitalists have been noted to “feel like glorified residents” in at least 1 report,<sup>31</sup> a factor that might also negatively impact personal accomplishment.

It is also worthwhile to place the burnout results for both groups in context with prior studies.

Although we found high rates of burnout among outpatient physicians, our outpatient sample's mean MBI subset scores are not higher than previous samples of American<sup>32</sup> and Canadian<sup>33</sup> outpatient physicians, suggesting that this finding is neither new nor artifactual. Placing the hospitalist sample in perspective is more difficult, as very few studies have administered the MBI to US hospitalists, and those that have either administered 1 component only to an exclusive academic sample<sup>34</sup> or administered it to a small mixture of hospitalists and intensivists.<sup>35</sup> The prevalence of burnout we report for our hospitalist sample is higher than that reported by studies that utilized single-item survey items<sup>12-14</sup>; it is likely that the higher prevalence we report relates more to a more detailed assessment of the components of burnout than to a temporal trend, although this cannot be determined definitively from the data available.

The finding that 9.2% of hospitalists and 5.8% of outpatient general internists reported suicidal thoughts in the past 12 months is alarming, though consistent with prior data on US surgeons.<sup>35</sup> Although the higher rate of suicidal thoughts among hospitalists was not statistically significant, a better understanding of the factors associated with physician suicidality should be the focus of additional research.

Hospitalists were more likely than outpatient internists to report plans to leave their current practice in this study, although their plans after leaving differed. The fact that they were more likely to report plans to find a different role in medicine (rather than to leave medicine entirely or retire) is likely a function of age and career stage. The finding that hospitalists with an interest in changing jobs were more likely than their outpatient colleagues to consider administrative, leadership, education, and research roles may partially reflect the greater number of hospitalists at academic medical centers in this study, but suggests that hospitalists may indeed benefit from the availability of opportunities that have been touted as part of hospitalist “diastole.”<sup>36</sup>

Finally, rates of alcohol misuse and abuse found in this study were consistent with those reported in prior studies.<sup>37-39</sup> These rates support ongoing efforts to address alcohol-related issues among physicians. In addition, the proportion of outpatient general internists and hospitalists reporting having a primary care provider was similar to that seen in prior research.<sup>40</sup> The fact that 1 in 3 physicians in this study did not have a primary care provider suggests there is great room for improvement in access to and prioritization of healthcare for physicians in general. However, it is noteworthy that hospitalists were less likely than outpatient general internists to have a primary care provider even after adjusting for their younger age as a group. The reasons behind this discrepancy are unclear but worthy of further investigation.

Several limitations of our study should be considered. The response rate for the entire study sample was 26.7%, which is similar to other US national physician surveys in this topic area.<sup>41–43</sup> Demographic comparisons with national data suggest the respondents were reasonably representative of physicians nationally,<sup>4</sup> and all analyses were adjusted for recognized demographic factors affecting our outcomes of interest. We found no statistically significant differences in demographics of early responders compared with late responders (a standard approach to evaluate for response bias),<sup>14,31</sup> further supporting that responders were representative of US physicians. Despite this, response bias remains possible. For example, it is unclear if burned out physicians might be more likely to respond (eg, due to the personal relevance of the survey topic) or less likely to respond (eg, due to being too overwhelmed to open or complete the survey).

A related limitation is the relatively small number of hospitalists included in this sample, which limits the power of the study to detect differences between the study groups. The hospitalists in this study were also relatively experienced, with a median of 10 years in practice, although the overall demographics match closely to a recent national survey of hospitalists. Although age was considered in the analyses, this study may not fully characterize burnout patterns among very junior or very senior hospitalists. In addition, although analyses were adjusted for observed differences between the study groups for a number of covariates, there may be differences between the study groups in other, unmeasured factors that could act as confounders of the observed results. For example, the allocation of each individual's time to different activities (eg, clinical, research, education, administration), workplace flexibility and control, and meaning may all contribute to distress and well-being, and could not be assessed in this study.

In conclusion, the degree of burnout, depression, and suicidal ideation in both hospitalists and outpatient general internists is similar and substantial. Urgent attention directed at better understanding the causes of distress and identifying solutions for all internists is needed.

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