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ORIGINAL RESEARCH

Job Characteristics, Satisfaction, and Burnout Across Hospitalist Practice Models

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BACKGROUND: Nearly two-thirds of hospitals in the United States are served by hospitalist physicians. How hospitalist work patterns and job satisfaction vary across various practice models is unknown.

METHODS: We administered the Hospitalist Worklife Survey to a randomized stratified sample of 3105 potential hospitalists and 662 hospitalist members of 3 multistate hospitalist companies. Details about respondents' hospitalist group characteristics, their work patterns, and satisfaction with 2 global and 11 domain measures were assessed. Factors influencing job satisfaction were also solicited. These factors, job characteristics, job satisfaction, and burnout were compared across predefined practice models.

RESULTS: The adjusted response rate was 25.6%. Among the respondents, 44% were employed by a hospital, 15% by a multispecialty physician group, 14% by a multistate hospitalist group, 14% by a university or medical school, 12% by a local hospitalist group, and 2% by other. Hospitalists of local groups reported more clinical shifts per month, and hospitalists of local and multistate groups reported more billable encounters per shift compared to other practice models. Academic hospitalists reported fewer night shifts, fewer billable encounters per shift, more nonclinical work hours, and lower earnings compared to other practice models. Differences in clinical and nonclinical responsibilities, and differences in factors most important to job satisfaction, were noted across the 5 models. Despite these differences, levels of global job satisfaction and burnout were similar across the practice models.

CONCLUSIONS: Work patterns, compensation, and hospitalists' priorities varied significantly across practice models. Overall job satisfaction and burnout were similar across models, despite these differences. *Journal of Hospital Medicine* 2012;7:402–410 © 2012 Society of Hospital Medicine

Over the past 15 years, there has been dramatic growth in the number of hospitalist physicians in the United States and in the number of hospitals served by them.[1–3] Hospitals are motivated to hire experienced hospitalists to staff their inpatient services,[4] with goals that include obtaining cost-savings and higher quality.[5–9] The rapid growth of Hospital Medicine saw multiple types of hospital practice models emerge with differing job characteristics, clinical duties, workload, and compensation schemes.[10] The extent of the variability of hospitalist jobs across practice models is not known.

Intensifying recruitment efforts and the concomitant increase in compensation for hospitalists over the last decade suggest that demand for hospitalists is strong and sustained.[11] As a result, today's cohort of hospitalists has a wide range of choices of types of jobs, practice models, and locations. The diversity of available hospitalist jobs is characterized, for example, by setting (community hospital vs academic hospital), employer (hospital vs private practice), job duties (the amount and type of clinical work, and other administrative, teaching, or research duties), and intensity (work hours and duties to maximize income or lifestyle). How these choices relate to job satisfaction and burnout are also unknown.

The Society of Hospital Medicine (SHM) has administered surveys to hospitalist group leaders biennially since 2003.[12–15] These surveys, however, do not address issues related to individual hospitalist worklife, recruitment, and retention. In 2005, SHM convened a Career Satisfaction Task Force that designed and executed a national survey of hospitalists in 2009-2010. The objective of this study is to evaluate how job characteristics vary by practice model, and the association of these characteristics and practice models with job satisfaction and burnout.

METHODS

Survey Instrument

A detailed description of the survey design, sampling strategy, data collection, and response rate calculations is described elsewhere.[16] Portions of the 118-

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item survey instrument assessed characteristics of the respondents' hospitalist group (12 items), details about their individual work patterns (12 items), and demographics (9 items). Work patterns were evaluated by the average number of clinical work days, consecutive days, hours per month, percentage of work assigned to night duty, and number of patient encounters. Average hours spent on nonclinical work, and the percentage of time allocated for clinical, administrative, teaching, and research activities were solicited. Additional items assessed specific clinical responsibilities, pretax earnings in FY2010, the availability of information technology capabilities, and the adequacy of available resources. Job and specialty satisfaction and 11 satisfaction domain measures were measured using validated scales.[17–26] Burnout symptoms were measured using a validated single-item measure.[26,27]

Sampling Strategy

We surveyed a national stratified sample of hospitalists in the US and Puerto Rico. We used the largest database of hospitalists (>24,000 names) currently available and maintained by the SHM as our sampling frame. We linked hospitalist employer information to hospital statistics from the American Hospital Association database[28] to stratify the sample by number of hospital beds, geographic region, employment model, and specialty training, oversampling pediatric hospitalists due to small numbers. A respondent sample of about 700 hospitalists was calculated to be adequate to detect a 0.5 point difference in job satisfaction scores between subgroups assuming 90% power and alpha of 0.05. However, we sampled a total of 5389 addresses from the database to overcome the traditionally low physician response rates, duplicate sampling, bad addresses, and non-hospitalists being included in the sampling frame. In addition, 2 multistate hospitalist companies (EmCare, In Compass Health) and 1 for-profit hospital chain (HCA, Inc) financially sponsored this project with the stipulation that all of their hospitalist employees (n = 884) would be surveyed.

Data Collection

The healthcare consulting firm, Press Ganey, provided support with survey layout and administration following the modified Dillman method.[29] Three rounds of coded surveys and solicitation letters from the investigators were mailed 2 weeks apart in November and December 2009. Because of low response rates to the mailed survey, an online survey was created using Survey Monkey™ and sent to 650 surveyees for whom e-mail addresses were available, and administered at a kiosk for sample physicians during the SHM 2010 annual meeting.

Data Analysis

Nonresponse bias was measured by comparing characteristics between respondents of separate survey waves.[30] We determined the validity of mailing addresses immediately following the survey period by mapping each address using Google, and if the address was a hospital, researching online whether or not the intended recipient was currently employed there. Practice characteristics were compared across 5 model categories distilled from the SHM & Medical Group Management Association survey: local hospitalist-only group, multistate hospitalist group, multispecialty physician group, employer hospital, and university or medical school. Weighted proportions, means, and medians were calculated to account for oversampling of pediatric hospitalists. Differences in categorical measures were assessed using the chi-square test and the design-based *F* test for comparing weighted data. Weighted means (99% confidence intervals) and medians (interquartile ranges) were calculated. Because each parameter yielded a single outlier value across the 5 practice models, differences across weighted means were assessed using generalized linear models with the single outlier value chosen as the reference mean. Pair-wise Wilcoxon rank sum test was used to compare median values. In these 4-way comparisons of means and medians, significance was defined as *P* value of 0.0125 per Bonferroni correction. A single survey item solicited respondents to choose exactly 4 of 13 considerations most pertinent to job satisfaction. The proportion of respondents who scored $\geq$4 on a 5-point Likert scale of the 11 satisfaction domains and 2 global measures of satisfaction, and burnout symptoms defined as $\geq$3 on a 5-point single item measure were bar-graphed. Chi-square statistics were used to evaluate for differences across practice models. Statistical significance was defined by alpha less than 0.05, unless otherwise specified. All analyses were performed using STATA version 11.0 (College Station, TX). This study was approved by the Loyola University Institutional Review Board.

Survey data required cleaning prior to analysis. Missing gender information was imputed using the respondents' name. Responses to the item that asked to indicate the proportion of work dedicated to administrative responsibilities, clinical care, teaching, and research that did not add up to 100% were dropped. Two responses that indicated full-time equivalent (FTE) of 0%, but whose respondents otherwise completed the survey implying they worked as clinical hospitalists, were replaced with values calculated from the given number of work hours relative to the median work hours in our sample. Out of range or implausible responses to the following items were dropped from analyses: the average number of billable encounters during a typical day or shift, number of shifts performing clinical activities during a typical month, pretax earnings, the year the respondent completed residency training, and the number of whole years practiced as a hospitalist. The proportion of selective item nonresponse was small and we did not, otherwise, impute missing data.

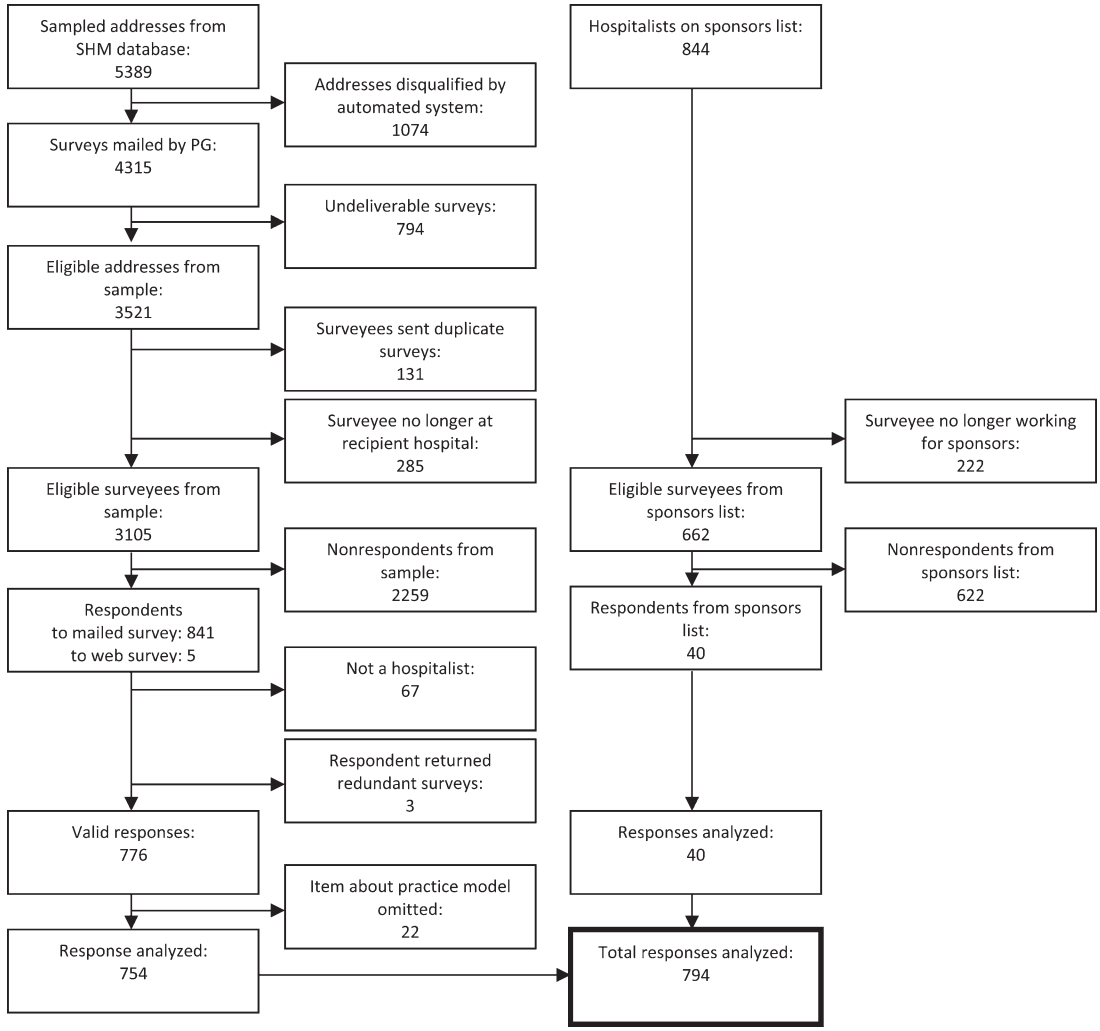

FIG. 1. Sampling flow chart. Sponsors are: EmCare; In Compass Health; and HCA, Inc. **Abbreviations:** PG, Press Ganey Associates; SHM, Society of Hospital Medicine.

RESULTS

Response Rate

Of the 5389 originally sampled addresses, 1868 were undeliverable. Addresses were further excluded if they appeared in duplicate or were outdated. This yielded a total of 3105 eligible surveyees in the sample. As illustrated in Figure 1, 841 responded to the mailed survey and 5 responded to the Web-based survey. After rejecting 67 non-hospitalist respondents and 3 duplicate surveys, a total of 776 surveys were included in the final analysis. The adjusted response rate was 25.6% (776/3035). Members of SHM were more likely to return the survey than nonmembers. The adjusted response rate from hospitalists affiliated with the 3 sponsoring institutions was 6% (40/662). Because these respondents were more likely to be nonmembers of SHM, we opted to analyze the responses from the sponsor hospitalists together with the sampled hospitalists. The demographics of the resulting pool of 816 respondents affiliated with over 650 unique hospitalist groups were representative of the original survey frame. We analyzed data from 794 of these who responded to the item indicating their hospitalist practice model. Demographic characteristics of responders and nonresponders to the practice model survey item were similar.

Characteristics of Hospitalists and Their Groups

Table 1 summarizes the characteristics of hospitalist respondents and their organizations by practice model. More (44%) respondents identified their practice model as directly employed by the hospital than other models, including multispecialty physician group (15%), multistate hospitalist group (14%), university or medical school (14%), local hospitalist group (12%), and other (2%). The median age of hospitalist respondents was 42 years, with 6.8 years of mean experience as a hospitalist. One third were women, 84% were married, and 46% had dependent children 6 years old or younger at home. Notably, hospitalists in multistate groups had fewer years of experience, and fewer hospitalists in local and multistate groups were married compared to hospitalists in other practice models.

TABLE 1. Characteristics of Hospitalist Respondents and Their Hospitalist Groups by Practice Model

	Local Hospitalist-Only Group n = 95	Multi-State Hospitalist Group n = 111	Multispecialty Physician Group n = 115	Employer Hospital n = 348	University or Medical School n = 107	*P* Value
Hospitalist characteristics						
Age, weighted mean (99% CI)	45 (42, 48)	44 (42, 47)	45 (43, 47)	45 (43, 46)	43 (40, 46)	
Years hospitalist experience, weighted mean (99% CI)	8 (6, 9)*	5 (4, 6)*†‡§	8 (7, 9)†	7 (6, 7)‡	8 (6, 9)§	<0.010*†‡§
Women, weighted %	29	30	39	31	43	0.118
Married, weighted %	76	77	82	89	81	0.009
At least 1 dependent child younger than age 6 living in home, weighted %	47	48	43	47	45	0.905
Pediatric specialty, n (%)	<10	<10	11 (10%)	57 (16%)	36 (34%)	<0.001
Hospitalist group characteristics						
Region, weighted %						<0.001
Northeast (AHA 1 & 2)	13	10	16	27	13	
South (AHA 3 & 4)	19	37	13	24	21	
Midwest (AHA 5 & 6)	23	24	25	22	26	
Mountain (AHA 7 & 8)	22	20	16	13	24	
West (AHA 9)	24	10	31	14	16	
No. beds of primary hospital, weighted %						<0.001
Up to 149	17	26	12	24	14	
150–299	30	36	36	33	21	
300–449	26	24	29	20	19	
450–599	13	8	17	11	21	
600 or more	12	6	7	13	24	
No. of hospital facilities served by current practice, weighted %						<0.001
1	53	70	67	77	66	
2	20	22	20	16	24	
3 or more	27	9	13	7	10	
No. of physicians in current practice, median (IQR)	10 (5, 18)	8 (6, 12)*†‡	14 (8, 25)*	12 (6, 18)†	12 (7, 20)‡	<0.001*†, 0.001‡
No. of non-physician providers in current practice, median (IQR)	0 (0, 2)	0 (0, 2)	0 (0, 3)	1 (0, 2)	0 (0, 2)	
Available information technology capabilities, weighted %						
EHR to access physician notes	57	57	75	58	79	<0.001
EHR to access nursing documentations	68	67	74	75	76	0.357
EHR to access laboratory or test results	97	89	95	96	96	0.054
Electronic order entry	30	19	53	38	56	<0.001
Electronic billing	38	31	36	36	38	0.818
Access to EHR at home or off site	78	73	78	82	84	0.235
Access to Up-to-Date or other clinical guideline resources	80	77	91	92	96	<0.001
Access to schedules, calendars, or other organizational resources	56	57	66	67	75	0.024
E-mail, Web-based paging, or other communication resources	74	63	88	89	90	<0.001

Abbreviations: AHA, American Hospital Association; CI, confidence interval; EHR, electronic health record; IQR, interquartile range.
*†‡§ indicate the pairs of values for which a significant difference exists.

Several differences in respondent group characteristics by practice model were found. Respondents in multistate hospitalist groups were more likely from the South and Midwest, while respondents from multispecialty groups were likely from the West. More multistate group practices were based in smaller hospitals, while academic hospitalists tended to practice in hospitals with 600 or more beds. Respondents employed by hospitals were more likely to practice at 1 hospital facility only, while local group practices were more likely to practice at 3 or more facilities. The median number of physicians in a hospitalist group was 11 (interquartile range [IQR] 6, 19). Local and multistate groups had fewer hospitalists compared to other models. Nonphysician providers were employed by nearly half of all hospitalist practices. Although almost all groups had access to some information technology, more academic hospitalists had access to electronic order entry, electronic physician notes, electronic clinical guidelines resources and communication technology, while local and multistate groups were least likely to have access to these resources.

Work Pattern Variations

Table 2 further details hospitalist work hours by practice model. The majority of hospitalists (78%) reported their position was full-time (FTE 1.0), while 13% reported working less than full-time (FTE <1.0). Only 5% of local group hospitalists worked part-time, while 20% of multispecialty group hospitalists did. An additional 9% reported FTE >1.0, indicating their work hours exceeded the definition of a full-time physician in their practice. Among full-time hospitalists, local group members worked a greater number of shifts per month than employees of multispecialty groups, hospitals, and academic medical centers. Academic hospitalists reported higher numbers of consecutive clinical days worked on average, but fewer night shifts compared to hospitalists employed by multistate

TABLE 2. Hospitalist Work Hours by Practice Model

	Local Hospitalist-Only Group n = 95	Multi-State Hospitalist Group n = 111	Multispecialty Physician Group n = 115	Employer Hospital n = 348	University or Medical School n = 107	*P* Value
FTE, weighted %						0.058
FTE < 1.0	6	13	20	12	14	
FTE = 1.0	85	75	74	80	82	
FTE > 1.0	10	13	6	8	5	
Workload parameters, weighted mean (99% CI)						
Clinical shifts per month for FTE 1.0	19 (17, 20)*†‡	17 (16, 19)	15 (14, 17)*	16 (15, 16)†	15 (13, 17)‡	<0.001*†‡
Hours per clinical shift	10 (9, 11)	11 (10, 11)*	10 (10, 11.0)	11 (10, 11.0)†	10 (9, 10)*†	0.006*, 0.002†
Consecutive days on clinical shift	8 (6, 9)	7 (6, 7)*	6 (6, 7)†	7 (6, 7)‡	9 (7, 10)*†‡	0.002*, <0.001†‡
% Clinical shifts on nights	20 (15, 25)	23 (18, 28)*	23 (17, 29)†	21 (17, 24)‡	14 (9, 18)*†‡	0.001*‡, 0.002†
% Night shifts spent in hospital	61 (49, 74)*	63 (52, 75)†	72 (62, 83)‡	73 (67, 80)§	43 (29, 57)*†‡§	0.010*, 0.003†, <0.001‡§
Billable encounters per clinical shift	17 (14, 19)*	17 (16, 18)†	14 (13, 15)	15 (14, 16)‡	13 (11, 14)*†‡	<0.001*†, 0.002‡
Hours nonclinical work per month	23 (12, 34)*	19 (11, 27)†	31 (20, 42)‡	30 (24, 36)§	71 (55, 86)*†‡§	<0.001*†‡§
Hours clinical and nonclinical work per month for FTE 1.0	202 (186, 219)	211 (196, 226)	184 (170, 198)*	193 (186, 201)†	221 (203, 238)*†	<0.001*†
Professional activity, weighted mean % (99% CI)						
Clinical	84 (78, 89)*	86 (81, 90)†	78 (72, 84)‡	79 (76, 82)§	58 (51, 64)*†‡§	<0.001*†‡§
Teaching	2.3 (1, 5)*	3 (1, 4)†	6 (4, 9)‡	6 (5, 8)§	17 (14, 20)*†‡§	<0.001*†‡§
Administration and Committee work	13 (8, 19)	11 (8, 15)*	16 (10, 21)	14 (12, 17)	19 (14, 24)*	0.001*
Research	0 (0, 0)*	1 (0, 2)†	0 (0, 1)‡	1 (0, 1)§	7 (3, 11)*†‡§	<0.001*†‡§

Abbreviations: CI, confidence interval; FTE, full-time equivalent.
*†‡§ indicate the pairs of values for which a significant difference exists. *P* value calculated using chi-square test for comparing FTE categories with alpha defined as <0.05. Pairwise *P* values calculated using generalized linear models with a single outlier value as the reference value for all other comparisons and alpha defined as <0.0125 per Bonferroni correction.

groups, multispecialty groups, and hospitals; fewer billable encounters than hospitalists in local and multistate groups; and more nonclinical work hours than hospitalists of any other practice model. Academic hospitalists also spent more time on teaching and research than other practice models. Hospitalists spent 11%-18% of their time on administrative and committee responsibilities, with the least amount spent by hospitalists in multistate groups and the most in academic practice.

Table 3 tabulates other work pattern characteristics. Most hospitalists indicated that their current clinical work as hospitalists involved the general medical wards (100%), medical consultations (98%), and comanagement with specialists (92%). There were wide differences in participation in comanagement (100%, local groups vs 71%, academic), intensive care unit (ICU) responsibilities (94%, multistate groups vs 27%, academic), and nursing home care (30%, local groups vs 8%, academic). Among activities that are potentially not reimbursable, academic hospitalists were less likely to participate in coordination of patient transfers and code or rapid response teams, while multistate groups were least likely to participate in quality improvement activities. In total, 99% of hospitalists reported participating in at least 1 potentially nonreimbursable clinical activity.

Hospitalist compensation schemes were significantly different across the practice models. Salary-only schemes were most common among academic hospitalists (47%), while 72% of multistate groups used performance incentives in addition to salary. More local groups used fee-for-service compensation than other models. Incentives differed by practice model, with more multistate groups having incentives based on patient satisfaction, while more multispecialty physician groups had incentives based on clinical processes and outcomes than other models. Finally, mean earnings for academic hospitalists were significantly lower than for hospitalists of other practice models. Local and multistate group hospitalists earned more than any other practice model (all $P < 0.001$), and $60,000 more than the lowest compensated academic hospitalists.

Components of Job Satisfaction

Hospitalists' rankings of the most important factors for job satisfaction revealed differences across models (Figure 2). Overall, hospitalists were most likely to consider optimal workload and compensation as important factors for job satisfaction from a list of 13 considerations. Local groups and academics were least likely to rank optimal workload as a top factor, and local group hospitalists were more likely to rank optimal autonomy than those of other models. Academic hospitalists had less concern for substantial pay, and more concern for the variety of tasks they perform and recognition by leaders, than other hospitalists.

Job Satisfaction and Burnout Risk

Differences in the ratings of 4 of the 11 satisfaction and job characteristic domains were found across the practice models (Figure 3). Multispecialty group hospitalists were less satisfied with autonomy and their relationship with patients than other practice models, and along with multistate groups, reported the highest perceived workload. Organizational fairness was rated much higher by local group hospitalists than other

TABLE 3. Hospitalist Work Patterns and Compensation by Practice Model

	Local Hospitalist-Only Group n = 95	Multi-State Hospitalist Group n = 111	Multispecialty Physician Group n = 115	Employer Hospital n = 348	University or Medical School n = 107	*P* Value
Reimbursable activities, overlapping weighted %						
General medical ward	100	99	100	99	99	0.809
Medical consultations	99	99	100	98	95	0.043
Comanagement with specialists	100	96	96	93	71	<0.001
Preoperative evaluations	92	92	90	88	77	0.002
Intensive care unit	86	94	67	75	27	<0.001
Skilled nursing facility or long-term acute care facility	30	19	12	16	8	<0.001
Outpatient general medical practice	4	4	5	5	10	0.241
Potentially nonreimbursable activities, overlapping weighted %						
Coordination of patient transfers	92	94	95	93	82	0.005
Quality improvement or patient safety initiatives	81	78	83	89	89	0.029
Code team or rapid response team	56	57	53	62	37	<0.001
Information technology design or implementation	42	39	47	51	51	0.154
Admission triage for emergency department	49	46	43	40	31	0.132
Compensation scheme, weighted %						<0.001
Salary only	18	21	30	29	47	
Salary plus performance incentive	54	72	59	67	53	
Fee-for-service	20	1	7	2	0	
Capitation	0	0	0	0	0	
Other	9	7	4	3	0	
Compensation links to incentives, overlapping weighted %						
No incentives	40	28	29	29	48	0.003
Patient satisfaction	23	39	38	38	14	<0.001
Length of stay	18	17	20	13	10	0.208
Overall cost	8	11	9	5	6	0.270
Test utilization	2	2	7	1	0	<0.001
Clinical processes and outcomes	26	34	44	43	24	<0.001
Other	17	29	26	31	25	0.087
Earnings, weighted mean dollars (99% CI)	226,065 (202,891, 249,240)*	225,613 (210,772, 240,454)†	202,617 (186,036, 219,198)‡	206,087 (198,413, 213,460)§	166,478 (151,135, 181,821)*†‡§	<0.001*†‡§

Abbreviations: CI, confidence interval.
*†‡§ indicate the pairs of values for which a significant difference exists. Pairwise *P* value calculated using generalized linear models with a single outlier value as the reference value for comparing earnings and alpha defined as <0.0125 per Bonferroni correction. *P* values calculated using chi-square test for all other comparisons with alpha defined as <0.05.

practice models. Despite these differences in work patterns and satisfaction, there were no differences found in level of global job satisfaction, specialty satisfaction, or burnout across the practice models. Overall, 62% of respondents reported high job satisfaction (≥4 on a 1 to 5 scale), and 30% indicated burnout symptoms.

DISCUSSION

In our sample of US hospitalists, we found major differences in work patterns and compensation across hospitalist practice models, but no differences in job satisfaction, specialty satisfaction, and burnout. In particular, differences across these models included variations in hospitalist workload, hours, pay, and distribution of work activities. We found that hospitalists perform a variety of clinical and nonclinical tasks, for many of which there are not standard reimbursement mechanisms. We also found that features of a job that individual hospitalists considered most important vary by practice model.

Previous analysis of this data explored the overall state of hospitalist satisfaction.[16] The present analysis offers a glimpse into hospitalists' systems-orientation through a deeper look at their work patterns. The growth in the number of hospitalists who participate in intensive care medicine, specialty comanagement, and other work that involves close working relationships with specialist physicians confirms collaborative care as one of the dominant drivers of the hospitalist movement. At the level of indirect patient care, nearly all hospitalists contributed to work that facilitates coordination, quality, patient safety, or information technology. Understanding the integrative value of hospitalists outside of their clinical productivity may be of interest to hospital administrators.

Global satisfaction measures were similar across practice models. This finding is particularly interesting given the major differences in job characteristics seen among the practice models. This similarity in global satisfaction despite real differences in the nature of the job suggests that individuals find settings that allow them to address their individual professional goals. Our study demonstrates that, in 2010, Hospital Medicine has evolved enough to accommodate a wide variety of goals and needs.

While global satisfaction did not differ among practice types, hospitalists from various models did report

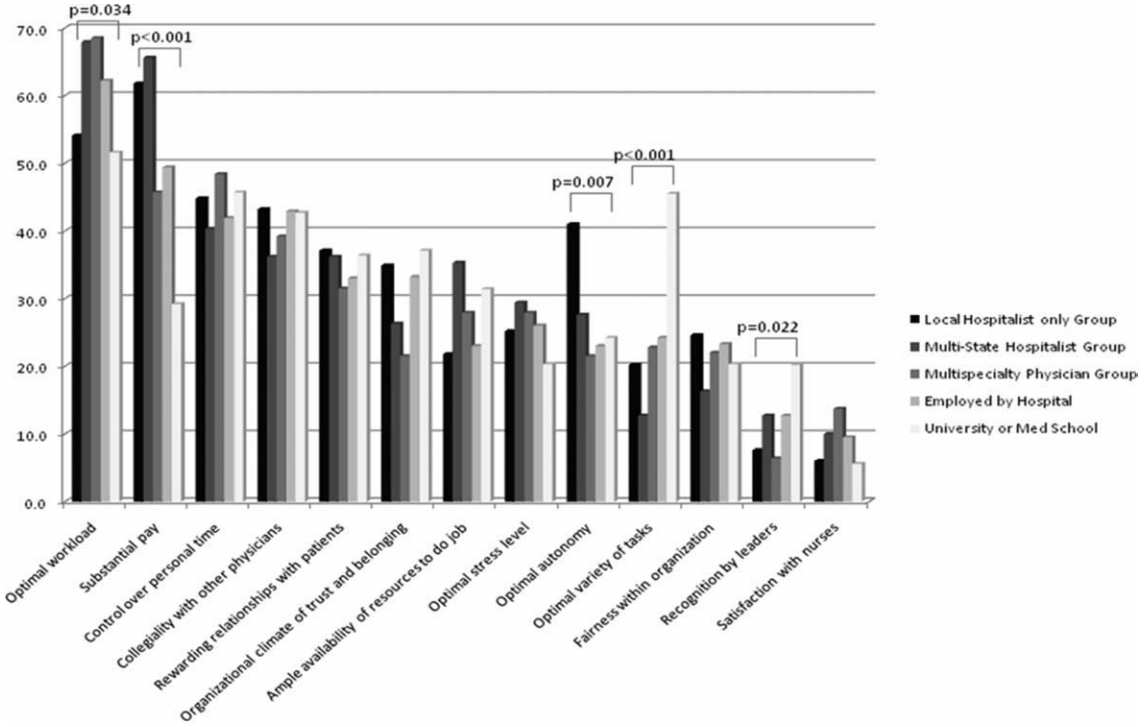

FIG. 2. Weighted proportion of respondents indicating the consideration as among the top 4 most important factors for job satisfaction by practice model. *P* values calculated using chi-square tests across practice models with alpha defined as <0.05.

differences in factors considered important to global satisfaction. While workload and pay were rated as influential across most models, the degree of importance was significantly different. In academic settings, substantial pay was not a top consideration for overall job satisfaction, whereas in local and multistate hospitalist groups, pay was a very close second in importance to optimal workload. These results may prove helpful for individual hospitalists trying to find their optimal job. For example, someone who is less concerned about workload, but wants to be paid well and have a high degree of autonomy, may find satisfaction in local hospitalist groups. However, for someone who is willing to sacrifice a higher salary for variety of activities, academic Hospital Medicine may be a better fit.

There is a concerning aspect of hospitalist job satisfaction that different practice models do not seem to

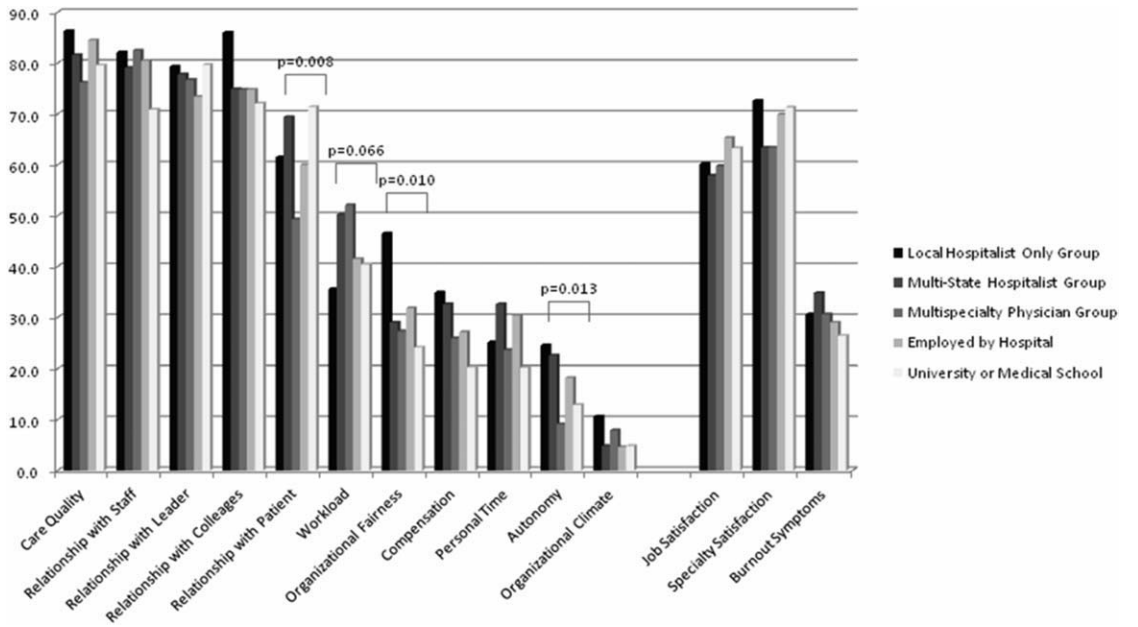

FIG. 3. Weighted proportion of respondents with satisfaction domain score ≥ 4 (out of 5) and burnout scale score ≥ 3 (out of 5) by practice model. *P* values calculated using chi-square tests across practice models with alpha defined as <0.05.

solve. Control over personal time is a top consideration for many hospitalists across practice models, yet their satisfaction with personal time is low. As control over personal time is seen as a draw to the Hospital Medicine specialty, group leaders may need to evaluate their programs to ensure that schedules and workload support efforts for hospitalists to balance work and homelife commitments.

There are additional findings that are important for Hospital Medicine group leaders. Regardless of practice model, compensation and workload are often used as tools to recruit and retain hospitalists. While these tools may be effective, leaders may find more nuanced approaches to improving their hospitalists' overall satisfaction. Leaders of local hospitalist groups may find their hospitalists tolerant of heavier workloads as long as they are adequately rewarded and are given real autonomy over their work. However, leaders of academic programs may be missing the primary factor that can improve their hospitalists' satisfaction. Rather than asking for higher salaries to remain competitive, it may be more effective to advocate for time and training for their hospitalists to pursue important other activities beyond direct clinical care. Given that resources will always be limited, group leaders need to understand all of the elements that can contribute to hospitalist job satisfaction.

We point out several limitations to this study. First, our adjusted response rate of 25.6% is low for survey research, in general. As mentioned above, hospitalists are not easily identified in any available national physician database. Therefore, we deliberately designed our sampling strategy to error on the side of including ineligible surveyees to reduce systematic exclusion of practicing hospitalists. Using simple post hoc methods, we identified many nonhospitalists and bad addresses from our sample, but because these methods were exclusionary as opposed to confirmatory, we believe that a significant proportion of remaining nonrespondents may also have been ineligible for the survey. Although this does not fully address concerns about potential response bias, we believe that our sample representing a large number of hospitalist groups is adequate to make estimations about a nationally representative sample of practicing hospitalists. Second, in spite of our inclusive approach, we may still have excluded categories of practicing hospitalists. We were careful not to allow SHM members to represent all US hospitalists and included non-members in the sampling frame, but the possibility of systematic exclusion that may alter our results remains a concern. Additionally, one of our goals was to characterize pediatric hospitalists independently from their adult-patient counterparts. Despite oversampling of pediatricians, their sample was too small for a more detailed comparison across practice models. Also, self-reported data about workload and compensation are subject to inaccuracies related to recall and cognitive biases. Last, this is a cross-sectional study of hospitalist satisfaction at one point in time. Consequently, our sample may not be representative of very dissatisfied hospitalists who have already left their jobs.

The diversity found across existing practice models and the characteristics of the practices provide physicians with the opportunity to bring their unique skills and motivations to the hospitalist movement. As hospitals and other organizations seek to create, maintain, or grow hospitalist programs, the data provided here may prove useful to understand the relationship between practice characteristics and individual job satisfaction. Additionally, hospitalists looking for a job can consider these results as additional information to guide their choice of practice model and work patterns.

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