

26 Analysis of Gender, Effort, and Compensation in Emergency Medicine Residency Scholarly Tracks Faculty Workforce

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Background: In Academic Medicine, women are less likely to hold leadership positions and be promoted to a higher rank when compared to their male colleagues. Scholarly tracks are established pathways in residency education led by emergency medicine (EM) faculty with expertise in specific niches. The gender differences in effort, time, and compensation of faculty who lead these tracks is unknown.

Objectives: We sought to investigate the relationship between gender and faculty effort, and compensation for scholarly track leaders.

Methods: All EM residency programs with scholarly tracks were identified and faculty track leaders were contacted through program websites and coordinators. Participants completed an online survey assessing their attributes, efforts, and compensation. We performed a bivariate analysis to analyze gender differences.

Results: 112 of 276 faculty surveyed responded (M:63, F:47). Female track leaders were more likely to have completed fellowship training and hold a higher academic rank than their male counterparts (Table 1). Female track leaders spent more time on academic track activities per month compared to male track leaders, however, this difference was not statistically significant (Table 2). Female track leaders were significantly more likely to receive compensation for their role including time buydown, salary support, and other forms of compensation (Table 1).

Table 1. Bivariate association between gender and scholarly track leader attributes and compensation.

Variable	Percentage Male (n=63, 57.3%)	Percentage Female (n=47, 42.7%)	p value
Completed Fellowship	60.3%	68.1%	<0.001
Academic Rank			
Assistant Professor	50.8%	42.6%	<0.001
Associate Professor	39.7%	44.7%	
Professor	7.9%	8.5%	
Others	0.0%	4.3%	
Regions			
Midwest	12.7%	23.4%	<0.001
Northeast	31.7%	38.3%	
South	39.7%	19.1%	
West	15.9%	19.1%	
Compensation			
None	84.8%	85.8%	<0.001
Time Buydown	10.9%	21.1%	
Salary Stipend	2.7%	5.3%	
Others	2.7%	7.9%	

Table 2. Bivariate association between gender and scholarly track leader efforts.

Variable	Total cohort (n=110)	Male (n=63)	Female (n=47)	p value
		Mean or median or percentage	Mean or median or percentage	
No of years in role	4 (2-6)	4 (2-5.75)	5 (3.5-6)	0.24
No of residents supervised per year	3.6 ± 1.9	2.60 ± 1.0	2.57 ± 1.85	0.25
No of hours/month spent on scholarly track activities	7.6 (4-10.7)	6.50 (6-10)	8.5 (5-14.25)	0.42
Percentage of time spent on Administrative Work	12.5 (10-25)	20 (10-25)	11 (7-24)	0.28
Percentage of time spent on mentorship	29.1 (15-49)	33 (10-50)	30 (15-49)	0.30
Percentage of time spent on scholarly activities	20.8 (10-26)	11 (7.5-24)	31 (10-30)	0.39
Percentage of time spent on teaching activities	35 (15-49)	25 (15-40)	30 (16-49)	0.29

Conclusion: This study identified important gender differences in the scholarly track workforce. Further investigation is necessary to explore the relationship between gender, efforts, and compensation, while accounting for potential influencing factors. In the future, consensus guidelines could be developed to guide the expected attributes, efforts, and compensation for scholarly track leaders to promote equity.

27 Impact of cardiovascular exercise during shifts on emergency medicine resident neurocognitive function

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Objective: To evaluate the impact of exercise on physician cognition as measured by typing speed and accuracy.

Methods: The prospective, IRB approved, single institution, experimental study design at an urban level 1 trauma center ED assessed a cohort of 35 emergency medicine resident (EMR) ED physicians' cognitive status reflected by typing speed and accuracy at 3-times of day: 0900-day, 1600-evening, and 0400-overnight shift before and after a cardiovascular exercise intervention, ascending and descending 2 flights of stairs twice. EMRs typed randomly generated prepared texts for 2-minutes before and after participating in the exercise intervention based on investigator availability. Characters typed and error rate were tabulated for pre- and post-exercise typing tasks. Data analysis utilizing Wilcoxon Signed Rank Test compared total number of pre-and post-exercise characters typed and error rate.

Results: Investigators screened 35 subjects, the entire cohort of EMRs, twice during day, evening, and overnight shifts. The difference in the general distribution of characters typed by EMRs demonstrates statistical significance with mean characters typed post-exercise 211 (104-506) compared to pre-exercise 190 (100-438; p < .001). Regarding typing accuracy, the difference in the general distribution post-and pre-exercise demonstrates statistical significance: percentage