

UC Irvine

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health

Title

Blood, Sweat, and Beers - Improving the Wellness of Emergency Medicine Physicians via Exercise Competition

Permalink

<https://escholarship.org/uc/item/1m90d5qg>

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 24(3.1)

ISSN

1936-900X

Authors

Anderson, Megan
Corbo, Sam
Swisher, Loice

Publication Date

2023

DOI

10.5811/westjem.61096

Copyright Information

Copyright 2023 by the author(s). This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

an expanded threshold number.

Methods: We performed a retrospective review of the ultrasound portfolio of a 3-year emergency medicine (EM) program between July 2020 and Oct 2022, encompassing 24 resident-years of data. Averages and chi-square analysis of all scan categories are compared across classes.

Results: Out of 3,207 total studies performed, 90.4 % underwent QA, versus 9.6 % without. Across the three years, the top 6 most performed studies are: FAST (24.4 ± 4.9 %), cardiac (23.2 ± 1.9 %), renal (10.3 ± 0.9 %), thoracic (9.8 ± 1.4 %), soft tissue (6.6 ± 1.6 %) and biliary (5.7 ± 0.8 %). Using FAST as the standard modality, residents across the three classes attain similar proportions of scans in renal (p = 0.29) and biliary (p = 0.28) scans, but diverged for cardiac, thoracic and soft tissue studies (p < 0.001 for all). Data extrapolation to end-of-training showed that 77.7 %, 44.4 % and 11.1 % of our residents will fail to meet a theoretical threshold increase to 300, 250 and 200 scans, respectively.

Conclusions: Based on data from a single EM residency, if ACGME were to increase the ultrasound scan minimum from 150 to 300, we anticipate a significant percentage of our residents will not meet graduation requirements. Assuming EUS remains four weeks long, equally valuable education in research, image interpretation, QA and billing may have to be sacrificed.

33 Blood, Sweat, and Beers – Improving the Wellness of Emergency Medicine Physicians via Exercise Competition

Megan Anderson, Sam Corbo, Loice Swisher

Background: Emergency Medicine has a high rate of physician burnout. Studies have shown that exercise and social activities have positive impacts on physician wellness. Many residency programs have implemented initiatives aimed to positively impact the emotional, physical, intellectual, and social aspects of wellness.

Objectives: The purpose was to improve EM physician wellness by implementing a voluntary team exercise competition into an EM residency program wellness curriculum over 3 months.

Methods: This study utilized a voluntary survey to compare wellness pre- and post-competition. The population studied included 33 EM residents and 28 EM attending participants. Residents were grouped based on pre-established residency “Houses” and attendings assigned to one of these Houses at random. Participants earned 1 point for every 30 minutes of exercise with the winning team earning a residency funded “House Party” at the end of the 3-month period. Data from the survey was analyzed using a 2 Sample T-Test to assess for significance. The mean values of the pre/post data were compared to determine if an aim of 25% improvement in wellness was met.

Results: Resident survey results showed that 100% exercised more during this competition and 100% would participate again. There was improvement in wellbeing (p = 0.026), energy (p = 0.014), and sleep (p = 0.025); these areas all also met the aim of improving by more than 25% after this 3-month competition (25%, 36%, 33% respectively). 80% of residents felt that their increased exercise positively impacted their wellness at work.

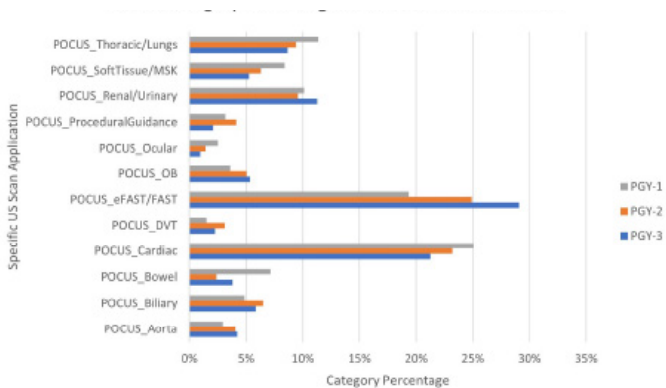


Figure 1. POCUS category percentage breakdown across classes.

Table 1.

Cumulative	Total			Percent		
	PGY-3	PGY-2	PGY-1	PGY-3	PGY-2	PGY-1
POCUS_Aorta	58	55	14	4.22%	4.07%	2.95%
POCUS_Biliary	80	88	23	5.83%	6.52%	4.84%
POCUS_Bowel	52	32	34	3.79%	2.37%	7.16%
POCUS_Cardiac	292	313	119	21.27%	23.19%	25.05%
POCUS_DVT	31	42	7	2.26%	3.11%	1.47%
POCUS_eFAST/FAST	399	336	92	29.06%	24.89%	19.37%
POCUS_OB	73	68	17	5.32%	5.04%	3.58%
POCUS_Ocular	13	19	12	0.95%	1.41%	2.53%
POCUS_ProceduralGuidance	29	56	15	2.11%	4.15%	3.16%
POCUS_Renal/Urinary	155	129	48	11.29%	9.56%	10.11%
POCUS_SoftTissue/MSK	72	85	40	5.24%	6.30%	8.42%
POCUS_Thoracic/Lungs	119	127	54	8.67%	9.41%	11.37%
Subtotal	1373	1350	475	100.00%	100.00%	100.00%

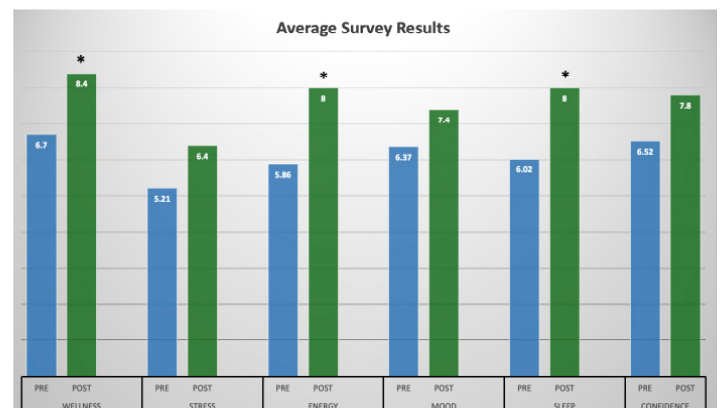


Figure.

Conclusions: EM residents had improvement in wellness, energy, and sleep after implementing a team exercise competition. A majority of participants felt this competition encouraged an increase in their exercise and stated they would participate again. Limitations include confounding variables impacting wellness such as changing weather or rotations, low survey response rate, and survey type.

	P-Value	Percentage Change
Wellbeing	0.026*	+ 25%*
Stress	0.231	+ 23%
Energy	0.014*	+ 36%*
Mood	0.251	+ 16%
Sleep	0.025*	+ 33%*
Confidence	0.143	+ 20%

Figure 2.

34 Intern Orientation Rotations in US Emergency Medicine Residency Programs: Statistics and Trends

Brian Jennett, Maxwell Harlan, Conner Willson, Hayden Smith, Johnathan Hurdelbrink, Nick Kluesner, Nash Whitaker, Patrick Meloy

Background: A dedicated orientation rotation in emergency medicine residency programs (EMRPs) appears to be common and unique to the specialty. The Accreditation Council for Graduate Medical Education (ACGME) does not require a dedicated rotation, though they are commonplace and have similar structures - consisting of dedicated time to complete hospital required competency courses, procedural competency and clinical educational sessions with faculty, and an initial assigned rotation in the resident’s specialty of choice.

Objective: To quantify the prevalence of a dedicated orientation rotation in US EMRPs and evaluate associated program characteristics.

Methods: A list of all ACGME accredited EMRPs in the 2022-2023 match was obtained and reviewed by two independent reviewers. These individuals documented per program website: orientation rotation status, program location, years with ACGME accreditation, number of residents per year, length of program, and academic affiliation. A third reviewer was utilized when reviewers did not agree or data was limited.

Results: Of the 276 reviewed EMRPs, 58% had an orientation rotation. Program characteristics by orientation rotation status are presented in Table. Analyses revealed

programs with more residents per class had a higher rate of having an orientation rotation (Figure). Model failed to show an association between an orientation rotation and program length, location in a metropolitan area (i.e., > 1 million), and academic affiliation.

Conclusions: In this study we examine several program characteristics and their association with the presence of a dedicated orientation rotation for new residents. It was found more than half of programs nationally had the rotation. Programs that had more residents per class were more likely to have a dedicated orientation rotation. There was no association between a program having the rotation and length of the program, academic affiliation, or population base.

Table. Program characteristics for accredited emergency medicine residency program located in the United States stratified by dedicated orientation rotation, n=276.

Program Characteristic	Orientation Rotation ³	
	Required (n=158)	Not Required (n=115)
Length of Program ¹		
3 years	127 (80%)	94(82%)
4 years	31 (20%)	21 (18%)
Median number of residents per class ²	12 (IQR: 8, 14)	9 (IQR: 7, 12)
Years Accredited with ACGME		
<=5	37 (23%)	50 (44%)
6 – 10	17 (11%)	15 (13%)
11-15	13 (8%)	7 (6%)
> 15	91 (58%)	43 (37%)
Academic Affiliation ¹	91(67%)	62(54%)
Metropolitan area		
> 1 million people	121 (85%)	74 (57%)
> 2 million people	101 (64%)	61 (53%)

Superscripts represent number of programs with this data element not documented on webpage. IQR: interquartile range.

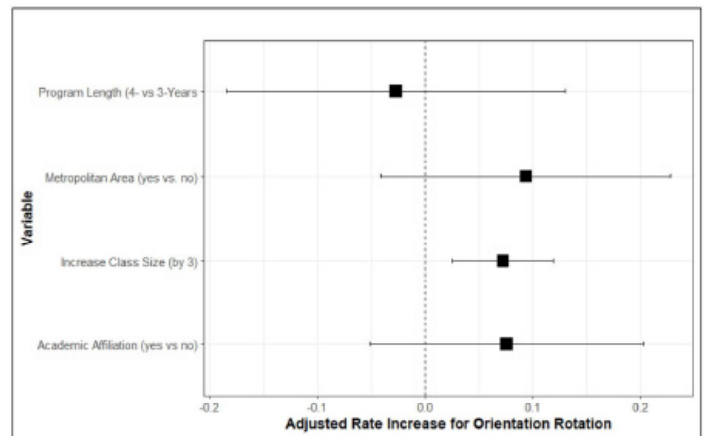


Figure. Adjusted rate increase for having dedicated orientation rotation (58%) in accredited emergency medicine residency programs in the United States. Modeling included 266 of the 276 eligible programs-given completeness of available information on respective webpages. The number of residents estimate was based on increasing class size by an increment of three-model excluded variable of years accredited due to it only serving as a proxy to age of program.