

UC Irvine

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

Title

Gender Evaluation and Numeric Distribution in Emergency Medicine Residencies. Understanding contributing factors to gender differences within US emergency medicine programs

Permalink

<https://escholarship.org/uc/item/71708021>

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 21(4.1)

ISSN

1936-900X

Authors

Gibney, Ryan
Cantwell, Christina
Toohey, Shannon
[et al.](#)

Publication Date

2020

Copyright Information

Copyright 2020 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/>

US EM residency programs and is viewed positively by both leaders and learners. Potential benefits include identification of struggling learners. Program logistics may limit implementation.

Table 1. Foundations of Emergency Medicine Enrollment (USA, 2018-2019).

Course	Programs	PGY1	PGY2	PGY3	PGY4	Total
Foundations I (F1)*	95	1069	235	162	57	1523
Foundations II (F2)*	74	239	719	417	90	1465
Foundations III (F3)*	34	97	146	286	70	599
EKG I**	48	570	204	185	48	1007
EKG II**	37	305	329	266	50	950
Imaging I	23	269	111	98	17	495
ITE Review	59	719	450	377	106	1652
Frameworks	22	248	81	66	12	407
Resident Instructors	37	51	40	164	79	334

*Foundations I-III cover EM Model core content; F1 targets PGY1s, F2 targets PGY2s, F3 targets PGY3/4s.
 **EKG I covers fundamental EKG topics targeting PGY1s; EKG II covers advanced topics for PGY2/3s.

Table 2. Foundations of Emergency Medicine Survey Results (2018-2019).

Leaders		
Survey Item		
Please rate your satisfaction with Foundations of Emergency Medicine. (1-Very Satisfied, 3-Neutral, 5-Very Dissatisfied)	Satisfied/Very Satisfied 100%	N 98
My learners come prepared for Foundations (F1, F2) meetings. (1-Strongly Agree, 3-Neutral, 5-Strongly Disagree)	Agree/Strongly Agree 60.2%	N 93
F1 small group cases have helped our residency leadership identify learners who might benefit from additional support. (Yes/No)	Yes 60.5%	N 81
How many hours did you spend each week coordinating meetings for Foundations core courses (F1, F2, F3)? (n=88)	Mean 1.17	SD 0.79
What are the barriers to using additional Foundations courses at your site? (n=94)	Limited time in conference schedule = 67% Available faculty oversight = 48% Faculty resistance = 5.3% Resident resistance = 4.3% Quality of content = 5.3% Awareness of available content = 8.5% Other = 23%	
Learners		
Survey Item		
Please rate your satisfaction with Foundations of Emergency Medicine. (1-Very Satisfied, 3-Neutral, 5-Very Dissatisfied)	Satisfied/Very Satisfied 93%	N 1612
On average, how many hours do you spend on Learning Pathway (independent study) assignments prior to Foundations I or II meetings? (n=XXX)	Mean 1.57	SD 0.96
Do you feel that your exposure to Foundations has reduced the chance of you making a medical error? (Yes/No)	Yes 87%	N 1603

F1, Foundations I course; F2, Foundations II course; F3, Foundations III course; Learning Pathway, asynchronous assignments coordinated to F1 and F2 meetings.

32 Gender Evaluation and Numeric Distribution in Emergency Medicine Residencies. Understanding Contributing Factors to Gender Differences Within US Emergency Medicine Programs

Gibney R, Cantwell C, Toohey S, Wray A, Wiechmann W, Boysen Osborn M / University of California Irvine

Background: Emergency medicine has experienced increased growth, with addition of over 500 residency positions over the past 10 years. It could be assumed that increased

ethnic, gender, and cultural diversity would also be seen, however, this is not the case.

Objectives: The study was designed to determine the male-to-female ratio of EM residencies, serving as a proxy for the specialty. Our hypothesis is that the gender diversity of the leadership influences the gender makeup of the programs they represent. To determine what factors influence gender representation within the specialty of emergency medicine, with the goal of better understanding of diversity and development of best practices for recruitment.

Methods: An IRB approved, retrospective, observational study of US Emergency Medicine programs for all residents of entering class years 2014-2017 was conducted using publicly available data for resident cohorts and program leadership to identify the study population, and data was confirmed by program leadership. Data was analyzed, examining program director's gender compared to the resident gender ratio to determine if there was a statistically significant relationship that existed. Secondary analysis of the distribution of gender by location was also performed.

Results: A population of 7236 residents in 170 programs was identified: 4635 male and 2601 female, giving an overall ratio of 1.78:1, with an individual program range of 0.50-6.67; 13 programs had a ratio ≤ 1 . This distribution was consistent among program directors with a male-to-female ratio of 2.39:1. There was no statistically significant correlation between the program leadership gender compared to the individual program ratio ($p=0.212$). There was also no correlation noted between location and gender ratio found ($p=0.675$)

Conclusion: There are many factors that contribute to the makeup of the gender diversity within EM residencies, and although no direct correlation between program leadership gender and overall gender was elucidated, it still may play a role in the selection of the program by the individual, and further studies are currently being conducted to evaluate that role.

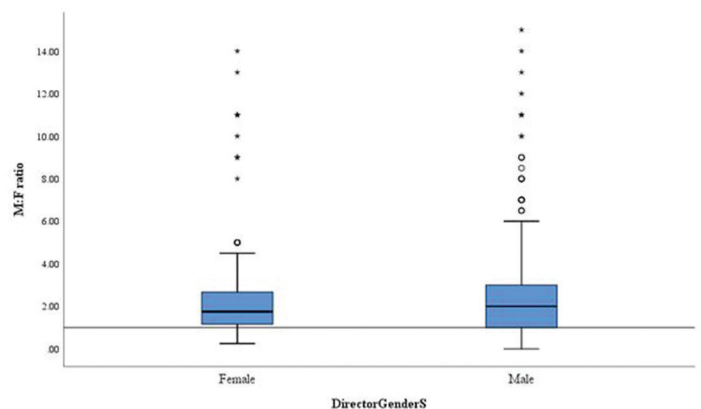


Image 1.

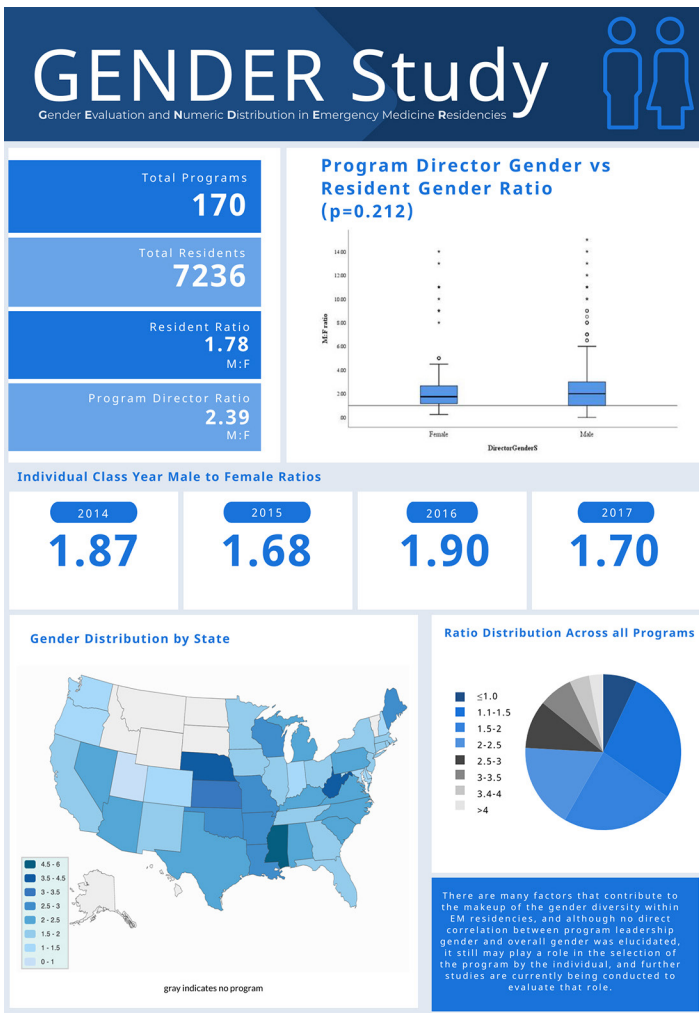


Image 2.

33 Geographic Trends in the Emergency Medicine Match

Kukulski P, Goode D, McEvoy B, Hay S, Ahn J / University of Chicago

Background: Application for EM residency is becoming more competitive. Knowledge about geographic trends in matched residents may help programs streamline their recruitment process. Studies in other specialties have shown a high correlation between residency and medical school location.

Objective: This study seeks to determine whether a correlation exists between the geographic location that an emergency medicine resident matched and their medical school location.

Methods: We identified allopathic emergency medicine residencies via The AMA FREIDA Residency Database. We used public websites created by residency programs to obtain individual demographic information.

Results: There are 164 Allopathic EM programs in the

US with resident information available online, consisting of 5,903 residents. We found 5,617 residents with medical school information (95%) and 3,205 residents with undergraduate information (54%).

58.1% of residents train at a residency in the same census region as their medical school. This is not affected by gender (p=0.7). Residents with an advanced degree other than MD/DO are more likely to train in a different region than their medical school (p<.01).

Going to residency in the same region as one’s medical school is associated with going to residency in the same region as one’s undergraduate school (p<.001).

There are differences between regions as to whether residents stay in the same region as their medical school for residency (see Table 1).

Conclusions: This study demonstrates that a majority of EM residents train in a residency in the same region as their medical school and that going to medical school in the same region as one’s undergraduate school predicts staying for residency. Gender does not affect these findings, but residents with another advanced degree are more likely to go to a new region for residency. This could be important information for both program directors and applicants in the recruitment process.

Table 1.

Region	Results by Region	
	Med School and Residency in Same Region	Med School and Residency in Different Region
Northeast	902 (55.6%)	719 (44.4%)
Midwest	903 (62.1%)	552 (37.9%)
South	1,111 (62.8%)	658 (37.2%)
West	346 (44.8%)	426 (55.2%)

34 High Efficiency Practices of Residents in an Academic Emergency Department: A Mixed Methods Study

Egan H, Bobb Swanson M, Ilko S, Pomeranz K, Harland K, Mohr N, Ahmed A / University of Iowa Hospital and Clinics

Background: ED utilization and overcrowding are on the rise, putting pressure on EM residency programs to train efficient residents who are able to meet these demands after training. Specific practices associated with resident efficiency have not yet been characterized.

Objective: The objective of this study was to identify specific, evidence-based practices associated with enhanced efficiency in emergency medicine residents.

Methods: A mixed-methods study design was utilized to identify behaviors associated with resident efficiency. Stage I Eight EM faculty provided 61 efficiency behaviors during semi-