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Assessment of Gender Bias of Emergency Medicine Resident Physicians

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Conclusions: Our findings suggest resident teaching shifts and organized social events positively impact the educational experience and perception of the rotation. Inclusion of these experiences were reported by all respondents to positively impact the program’s position on their residency rank list.

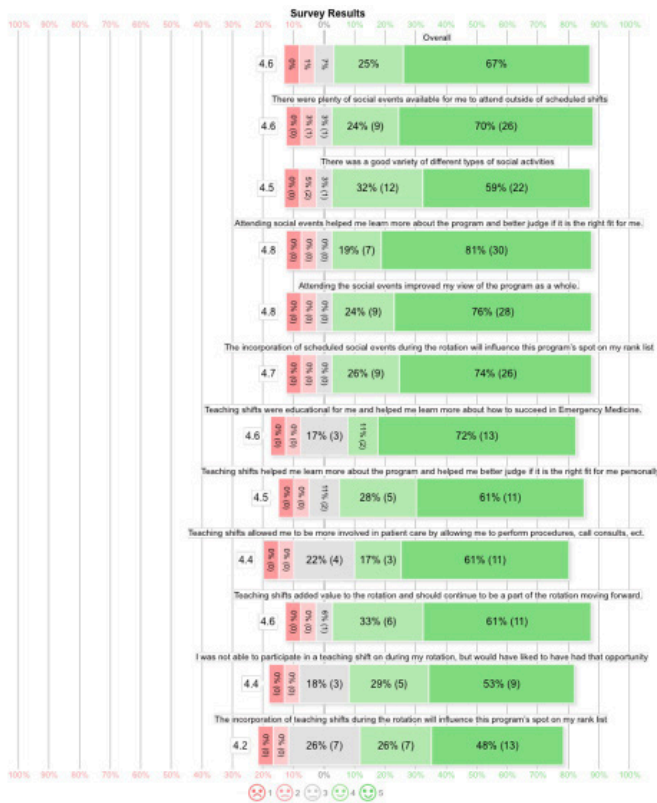
interview (or an away rotation) when compared to unknown virtual applicants.

Objectives: Characterize in-state and in-region match rates to emergency medicine residency programs for fourth year medical students with the switch to virtual interviews.

Methods: NRMP data available to the program director was used to identify medical school and match location of fourth year medical students who interviewed at a large emergency medicine residency program in the Midwest from 2020-2023. Students’ medical schools and ultimately matched programs were mapped to ERAS geographic regions.

Results: From 2020-2023, there were 964 applicants with match information available. The percent of students matching to an in-state institution increased over the first 2 years of virtual interviews rising from 23.5% in the 2020 match to 30.8% in-state matches for the 2022 match. This decreased slightly for 2023 with 29.0% of students matching in-state. In-region matches increased from 43.9% in 2020 to 49.8% for 2021. However, in-region matches fell to 42.6% with the 2022 Match before increasing again to 44.5% for the 2023 Match.

Conclusions: Virtual interviews changed the landscape of residency interviews. In-state and in-region matches may be more likely for applicants with a virtual interview as both programs and applicants are more familiar with programs in geographic proximity to each other. Virtual interviews allow applicants to save costs associated with travel to in-person interviews and may allow them to complete additional interviews. It is unknown what effect virtual interviews may have on recruiting a diverse emergency medicine residency and this remains an area of significant need for study.



1 = Strongly Agree 2 = Agree 3 = Neutral 4 = Disagree 5 = Strongly Disagree

Image 1. Student survey results for Likert Scale questions.

Table 2. Open-ended feedback results.

Suggestions for Improvement	Count of Students with this Suggestion
More teaching shifts	2
More variety in social events	1
Local events highlighting local culture/food	2
Less medical student shifts scheduled during teaching shifts	1
More social events with attendings	3

70 Virtual Interviews Correlate with Higher In-State and In-Region Match Rates

Christine Motzkus, Casey Frey, Aloysius Humbert

Background: Incorporating virtual interviews into future recruitment efforts could help to diversify access to residency programs across the country while also reducing cost involved with travel and lodging. Programs may be more likely to rank students they have met in-person at an

71 Assessment of Gender Bias of Emergency Medicine Resident Physicians

Nileena Johnkutty, Amanita Setari, Alicia Rouff, Courtney Knieriem, Chiamaka Eneh, Corinne Espinosa, Greg Neyman

Background: The perception of female physicians in Emergency Medicine plays a crucial role in shaping the opportunities in a demanding medical specialty. Studies show female residents experience lack of mentorship and difficulties in establishing credibility. Initiatives have developed across residencies to promote diversity and we question whether they have been successful at implementing change.

Objectives: The purpose of this study is to assess the perception of gender bias within the emergency department, with an emphasis on female resident physicians.

Methods: A structured online, anonymous survey distributed to residents, advanced providers, and attending physicians involved in a 3-year emergency medicine program. They were asked to rate statements on a scale

from 1-7 (1 is a strong disagreement and 7 is a strong agreement).

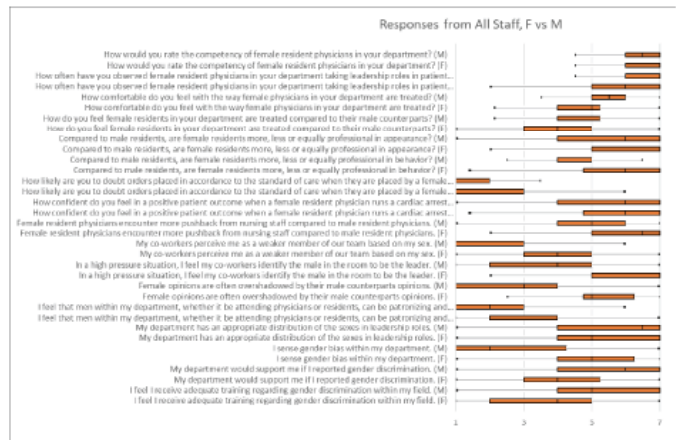
Results: were tabulated with counts, medians, IQRs, Mann Whitney U testing. Results Data from 48 participants, 50% identified as each gender and 56.3% are residents. The following questions were statistically significant in difference (p values 0.05-0.00007). Females were perceived more professional in behavior than men, men within the department can be patronizing to females (p=.001) and females opinions are overshadowed by males (p =.0009). Females felt co-workers perceived them as weaker members (p=.003) and males were seen as the leader in high stress situations (p=.00007). Females reported confidence was affected by how peers perceived them (p=.007), more gender bias (p=.001) and pushback from nursing (p=.003).

Conclusions: Despite the emphasis on creating an inclusive environment, providers in emergency medicine still hold mixed perceptions of female emergency medicine physicians and data suggests female gender bias is present and may be a potential threat to female education. Further research is instrumental to determine steps necessary to create an equitable learning environment.

Table 1. All staff, female versus male.

Question	Female	Male	p Value
How would you rate the competency of female resident physicians in your department?	7 (6-7)	6.5 (6-7)	0.773
Female resident physicians in my department demonstrate the same level of medical expertise as their male counterparts	7 (7-7)	7 (7-7)	0.103
How often have you observed female resident physicians in your department taking leadership roles in patient care situations?	6 (5-7)	6 (6-7)	0.446
How comfortable do you feel with the way female physicians in your department are treated?	5 (4-5.25)	5.5 (4-6)	0.073
How do you feel female residents in your department are treated compared to their male counterparts?	4 (3-5)	4 (4-5.25)	0.194
Compared to male residents, are female residents more, less or equally professional in appearance?	7 (5-7)	6 (4-7)	0.741
Compared to male residents, are female residents more, less or equally professional in behavior?	6 (4.75-7)	4 (4-5)	0.005
How likely are you to doubt orders placed in accordance to the standard of care when they are placed by a female resident physician vs. a male resident physician?	1 (1-3)	1 (1-2)	0.68
How confident do you feel in a positive patient outcome when a female resident physician runs a cardiac arrest resuscitation compared to a male resident physician?	6 (4.75-7)	6 (4-7)	0.398
Female resident physicians encounter more pushback from nursing staff compared to male resident physicians.	6.5 (5-7)	5 (4-6)	0.004
My co-workers perceive me as a weaker member of our team based on my sex.	4 (3-5)	1 (1-3)	0
In a high pressure situation, I feel my co-workers identify the male in the room to be the leader.	7 (5-7)	4 (2-5)	0
Female opinions are often overshadowed by their male counterparts opinions.	5 (4.75-6.25)	3 (1-4)	0
I feel that men within my department, whether it be attending physicians or residents, can be patronizing and condescending to the female members of the team.	4 (2-4)	7 (1-3)	0.001
My department has an appropriate distribution of the sexes in leadership roles.	5 (4-7)	6.5 (4-7)	0.127
I sense gender bias within my department.	5 (4-6.25)	7 (4-7.25)	0.001
My department would support me if I reported gender discrimination.	4 (3-5.25)	6 (4-7)	0.007
I feel I receive adequate training regarding gender discrimination within my field.	4 (2-5)	5 (4-7)	0.007

Table 2. Responses from all staff female versus male.



72 Point of Care Ultrasound Use Following Ultrasound Simulation In Emergency Medicine Conference

Travis Masood, Danielle Biggs, Mary Rometti, Jeffrey Greco, Greg Neyman, Hrant Gevorgian

Background: Point of care ultrasound (POCUS) is crucial in caring for Emergency Department (ED) patients. Limited studies exist that demonstrate its application in simulation (SIM) labs and impact on enhancing clinical skills. A well-structured POCUS curriculum leads to clinical proficiency, but the process of achieving competency remains uncertain. SIM has enabled learners to refine critical skills while simultaneously reducing risks and enhancing patient safety.

Objective: To determine if providing education on POCUS skills during EM Resident Conference SIM days results in more POCUS exams being performed in the ED.

Methods: During EM resident conference, SIM stations reviewed a POCUS exam. The number and type of scans performed in the ED during the 3 weeks following the SIM review were compared with the 3 weeks prior. Inclusion criteria involved completing a study worksheet on the Butterfly Enterprise platform. Incomplete worksheets were excluded. Sample size justification was based on a targeted 10% increase in studies of interest. Data was collected from Butterfly with further analysis conducted post-collection.

Results: During the study period, 1831 exams were performed. 931 studies were logged in the pre period, and 900 in the post. Pre/post exam types included eFAST 38/18; ECHO 62/105; Biliary 16/7. 11% were performed by PGY1s, 35% by PGY2s, 20% by PGY3s, and the remainder by attendings. Table 1 shows the number of exams performed by level, pre/post SIM session, relative risk, confidence intervals, and p values. Figure 1 shows the difference in the post and