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

Title

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Permalink

<https://escholarship.org/uc/item/0x83s0s5>

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 23(4.1)

ISSN

1936-900X

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Publication Date

2022

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schools, but women applicants to EM ranges 33-37%. Prior research does not explain these gender differences. There are known differences in resident experiences and assessments based on gender.

Objectives: We sought to explore how clinical experiences and perceptions of the specialty influence selection of EM by women.

Methods: Using purposive and convenience sampling to represent diverse learning environments, we conducted semi-structured interviews of men and women US senior medical students who considered EM as a specialty. Interviews were transcribed, de-identified, and coded using constant comparative analysis until saturation. We conducted thematic analysis using a constructivist approach and grounded theory. Reflexivity and credibility activities were performed.

Results: 25 students from 11 geographically diverse schools completed interviews. 68% (17/25) were women. The majority (21/25) expressed commitment to EM. Four main themes were identified: 1. EM culture was perceived as exclusionary; 2. Beliefs about attributes of EM physicians and the specialty were influenced by gender; 3. Distressing patient encounters and physician/staff behaviors negatively affected students; and 4. Access to mentors, representation and exposure to EM affected interest. Table 1.

Conclusions: The EM gender differential is affected by societal gender roles and an environment that rewards traditional masculine traits. Conflict with behavioral norms may hinder women forming their professional identity as an emergency physician. Potential interventions include recognizing the gendered perception of the field; establishing early, longitudinal mentoring and engagement with the specialty; and building a supportive culture to overcome mistreatment concerns. As for limitations, students hold multiple intersecting identities, and this study primarily focused on gender.

8 Towards an Explanatory Framework of Informal and Incidental Learning in Medical Education: A Deductive Analysis of Critical Incidents from Frontline Physicians Working During the COVID-19 Pandemic

Dimitrios Papanagnou, Urvashi Vaid, Henriette Lundgren, Grace Alcid, Deborah Ziring, Karen Watkins, Victoria Marsick

Learning Objectives: Our study aims to describe how emergency medicine physicians engage in and rely on informal and incidental learning when working through the uncertainty of clinical practice.

Background: Informal learning is implicit, organic, and unstructured. Opportunities for informal learning arise in ill-structured, unstable environments where established processes may fail to provide a means of understanding situations or to develop strategies to problem-solve. We examined the Marsick and Watkins Model of Informal and Incidental Learning (IIL) as a framework to describe how physicians learn in the clinical environment, particularly when working through heightened uncertainty.

Objective: Our study aims to describe how emergency medicine physicians engage in and rely on informal and incidental learning when working through the uncertainty of clinical practice.

Methods: A qualitative deductive analysis of physicians' narratives using the critical incident technique was conducted to gain an understanding of the components of IIL. Six frontline emergency medicine and six critical care physicians who worked during the height of the pandemic (March-June 2020) were interviewed. Investigators shortened narratives from recorded, transcribed interviews into cohesive, chronological stories using participants' words. We applied codes from the IIL Model and engaged in constant comparative analysis to identify categories, patterns, and sequences of IIL.

Results: Data suggest that the IIL Model and its components serve as an explanatory framework to describe physicians' learning during uncertainty (Table 1). Consistent with previous research from the non-healthcare sector, the complexity of IIL is captured as cyclical, non-linear, non-sequential and highly intertwined with patient care.

Conclusions: Data from physicians' critical incidents clarifies understanding of IIL when working through clinical uncertainty. The Marsick and Watkins Model offers an explanatory framework for how IIL may guide educational programming that links to stages of IIL to prime students for the learning they will engage in when in clinical practice.

Table 1.

Themes	Illustrative Quotes
EM culture was perceived as exclusionary	"...men, and this could be like attendings and residents... like the way that they refer to each other, ways that... seem to have this, ... bro-y... collegiality, that's not always accessible to other people." (Female EM-bound student)
	"I was telling this one attending that I want to do emergency medicine, and he was like, "Oh, it'd be a great specialty for you as a woman because when you have kids, it's easier to work part time." I'm like, "That's making a lot of assumptions about what I want to do and it's definitely not why I'm choosing emergency medicine so that I can work part-time." (Female EM-bound student)
Beliefs about attributes of EM physicians and the specialty were influenced by gender	"I think I probably benefited probably more so just... being a tall white male... I think that... people got along with me pretty easily." (Male EM-bound student)
	"...emergency docs... come in and save the day and they can do anything and they're resuscitating, and I... like those kind of traits, ... being a team leader are more typically masculine traits as opposed to like the kind pediatrician and family doctor who are going to sit down and talk about your feelings." (Female EM-bound student)
Distressing patient encounters and physician/staff behaviors negatively affected students	"And at one point one of the nurses was asking two male doctors on an overnight shift to assess her breast implants, not assess them in a medical sense like, do you think I have an infection? But assess like, do you think these make me look hot? And won't this look better if my boobs were two inches higher? And that was just very uncomfortable and bummed me out, because I was like, I don't want these to be my people." (Female EM-bound student)
	"There were a lot of just inappropriate conversations between doctors and nurses joking about sending each other dick pics" (Female EM-bound student)
	"And some of the nurses were criticizing [a 15 or 16 year old female patient who had a miscarried] and speaking about her at the nurses station about how she should be grateful that she's not pregnant anymore... I mean, I've never been pregnant so I can't imagine. And I was really upset that they were talking about her like that so I finally said something and they were pretty snappy back to me as well and kind of reiterated that she should be grateful." (Female EM-bound student)
Access to mentors, representation and exposure to EM affected interest	"... I had... the opportunity to see some really strong women in emergency medicine. And I think if I hadn't seen that and I just had... the experience of my residents, for example who are mostly men, I don't know if I would have wanted to do it." (Female EM-bound student)
	"So I struggled to even find an advisor or somebody who would talk with me or help me out until my M3 year when I finally got into contact with somebody at the main campus where there is an EM program..." (Female EM-bound student)

Table 1. Emergency themes of informal and incidental learning.

Informal and Incidental Learning [Marsick and Watkins Model]	Critical Incident Examples
Trigger: Experience Problem or Opportunity	Young COVID+ patient who appears healthy, but with unstable vital signs. Deferring intubation in a COVID+ patient who would otherwise have been intubated. Making patient decisions for patients on behalf of family members with minimal information.
Interpret Trigger in Situational Context	Managing hypoxic patients with low oxygen saturation who are comfortable. Not being sure how to intervene in the setting of COVID.
Examine Alternatives and Select Solutions	Examining options in how to intervene in a patient: intubation vs. chest tube placement vs. fluid resuscitation.
Acquire Required Knowledge and Skills	Revisiting basic lung physiology to consider new treatment modalities and supportive measures. Examining anecdotal information that was being shared on social media in other cities and countries. Adapting to a workplace that was reconfigured and restructured for COVID+ patients.
Implement Solutions	Applying new protocols and procedures, without having previously performed them. Figuring-out how to don and doff personal protective equipment (PPE) with minimal support.
Assess Consequences (Intended and Unintended)	Consideration that previous, evidence-based interventions could impose new harms. Wishing that a specific intervention was not performed. There is uncertainty in everything.
Extract Lessons Learned and Plan Next Steps	How to communicate management plans to patients and family members when there was no clarity or data to support decisions.
Reframe Context	When encountering new unclear presentations, there is utility in re-evaluating previous treatment strategies. Typical supportive measures prolonged discomfort in patients with COVID.

study of EM physicians at a representative sample of eight emergency departments across the U.S. Sites have been selected to represent diverse practice environments. An anonymous survey was developed through expert consensus and distributed electronically via email. Survey participants were asked to rate the frequency over the past one month of which they experienced gender-biased behaviors or engaged in activities to mitigate gender bias. Descriptive statistics and Mann-Whitney U test was used to compare across genders.

Results: Preliminary analysis from a single urban academic center demonstrates an overall 37% response rate (59/159). 51.5% (31/59) of respondents identified as female or NB. 59% (35/59) of respondents were residents and 41% (24/59) attendings. See Table 1 for a detailed description of the frequency of which respondents encountered gender bias or engaged in activities to mitigate bias. Female and NB physicians reported experiencing sexist remarks and/or behavior by patients or their family members more often than male physicians. Additional results will be available at the time of the CORD AA to include data from other sites.

Conclusions: Early results demonstrate that female and NB physicians engage in more activities to reduce gender bias. These activities represent an additional mental burden and time commitment that may contribute to gender disparities in salaries, hiring practices, and retention.

9 White Coat Study: Gender Bias in Emergency Medicine

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Learning Objectives: Assess the prevalence of self-reported gender bias in EM physicians and strategies in personal care and appearance that are used to overcome them.

Background: Female and nonbinary (NB) emergency medicine (EM) physicians experience gender discrimination. We have limited data regarding how female and NB physicians overcome daily workplace barriers. Gender differences in attire and grooming may be part of a physician’s efforts to be appropriately credited as a physician by their patients.

Objectives: Assess the prevalence of self-reported gender bias in EM physicians and strategies in personal care and appearance that are used to overcome them.

Methods: This is an ongoing cross-sectional survey

Table 1.

In the past month, how often have you...	Gender		p-value
	Female/NB	Male	
Been referenced as something other than a physician (mid-level provider, technician, food services)	3 (3-4)	2 (1-2)	<0.001
Felt the need to correct a patient or family member when referenced as something other than a physician (mid-level provider, technician, food services)	4 (3-4)	2 (1-2)	<0.001
Addressed yourself as the doctor more than once throughout each encounter	4 (3-4)	2 (1-2)	<0.001
Felt the need to wear a white coat	1 (1-2)	1 (1-1)	0.149
Wore the white coat for reasons other than to be properly acknowledged as the physician	1 (1-1)	1 (1-1)	0.734
Felt the need to wear business casual (or professional) clothing	1 (1-2)	1 (1-1)	0.39
Felt the need to wear scrubs	4 (3-4)	4 (1-4)	0.146
Felt the need to wear at least one type of make-up (eye-liner, mascara, concealer, etc.)	3 (2-4)	1 (1-1)	<0.001
Felt the need to do something special with your hair (straighten, curl, pony tail, cut short, spike, gel to side, etc.)	2 (1-3)	1 (1-1)	0.002
Felt the need to have a manicure/unchipped nail polish	2 (1-3)	1 (1-1)	<0.001
Felt the need to shave/trim your facial hair	1 (0-1)	2 (1-3)	<0.001
Unwillingly called something other than your formal title of "doctor" (sweetheart/honey/dear/cutie)	3 (3-3)	2 (1-2)	<0.001
Felt frustrated or disappointed when unwillingly called something other than your formal title of "doctor" (sweetheart/honey/dear/cutie)	4 (3-4)	1 (1-2)	<0.001
Experienced sexist remarks and/or behavior by patients or their family members	3 (3-4)	1 (1-1)	<0.001
Been told during shift you should be home with your family (husband, wife, children, etc.) instead of working	1 (1-2)	1 (1-1)	0.019
Encountered your role being confused with that of an opposite gender colleague's (eg. Female resident confused for YOUR male attending position, male attending confused for YOUR female resident's position)	3 (2-4)	1 (1-2)	<0.001
Enlisted the help of an opposite gender colleague to discuss a topic of concern with a patient or their family member because you feel it will have more of an effect at relaying your message	2 (1-3)	1 (1-2)	0.041
Asked what medical school you attended	2 (1-2)	2 (1-3)	0.364

Key: Always = 4, Sometimes = 3, Occasionally = 2, Never = 1, N/A = 0
All variables summarized with median and 25th-75th percentile, and compared across groups with the Mann-Whitney U test