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 medial 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.
Extract Lessons Learned and Plan Next Steps	There is uncertainty in everything. 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.

9 White Coat Study: Gender Bias in Emergency Medicine

Stacey Frisch, Emily Cen, Catherine DeGuzman, Shivani Mody, Arlene Chung

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 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.

Table 1.

In the past month, how often have you…	Gender		
	Female/NB	Male	p-value
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			

Table 2.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]	Decision
1	The distribution of Been referenced as something other than a physician (mid-level provider, technician, food services is the same across categories of Male_Gender.	Independent-Samples Mann-Whitney U Test	0	Reject the null hypothesis.
2	The distribution of Felt the need to correct a patient or family member when referenced as something other than a physician (mid-level provider, technician, food services is the same across categories of Male_Gender.	Independent-Samples Mann-Whitney U Test	0	Reject the null hypothesis.
3	The distribution of Addressed yourself as the doctor more than once throughout each encounter is the same across categories of Male_Gender.	Independent-Samples Mann-Whitney U Test	0	Reject the null hypothesis.
4	The distribution of Felt the need to wear a white coat is the same across categories of Male_Gender.	Independent-Samples Mann-Whitney U Test	0.149	Retain the null hypothesis.
5	The distribution of Wore the white coat for reasons other than to be properly acknowledged as the physician is the same across categories of Male_Gender.	Independent-Samples Mann-Whitney U Test	0.734	Retain the null hypothesis.
6	The distribution of Felt the need to wear business casual (or professional) clothing is the same across categories of Male_Gender.	Independent-Samples Mann-Whitney U Test	0.39	Retain the null hypothesis.
7	The distribution of Felt the need to wear scrubs is the same across categories of Male_Gender.	Independent-Samples Mann-Whitney U Test	0.146	Retain the null hypothesis.
8	The distribution of Felt the need to wear at least one type of make-up (eye-liner, mascara, concealer, etc.) is the same across categories of Male_Gender.	Independent-Samples Mann-Whitney U Test	0	Reject the null hypothesis.
9	The distribution of Felt the need to do something special with your hair (straighten, curl, pony tail, cut short, spike, gel to side, etc.) is the same across categories of Male_Gender.	Independent-Samples Mann-Whitney U Test	0.002	Reject the null hypothesis.
10	The distribution of Felt the need to have a manicure/unchipped nail polish is the same across categories of Male_Gender.	Independent-Samples Mann-Whitney U Test	0	Reject the null hypothesis.

Best Of Best Innovation Abstracts

1 Amazing & Awesome: Incorporating Positive Case-Based Discussion in Emergency Medicine Residency Curriculum to Improve Learning and Team Morale

Jessica Smith, Al'ai Alvarez

Learning Objectives: 1. Discuss and analyze cases with exemplary team performance using root cause analysis and case reflection. 2. Demonstrate the importance of clinical learning opportunities from successful cases in medical education (Safety-II Thinking). 3. Value positive clinical cases to boost team morale

Introduction: While M&M has long been part of residency training, few programs dedicate time to highlight above-and-beyond patient care. With this learning gap identified, the Amazing and Awesome (A&A) didactic series was created and implemented. While Saves-of-the-Month awards recognize exemplary care, A&A provides a deeper inspection of the cases. Literature review of other programs with A&A focused on reframing the culture of medicine from Safety-I thinking (reacting to errors) to Safety-II thinking (learning from resilient systems and successful interventions). Currently, there is no data available to assess its perceived value by residents in their education or its impact on morale.

Objectives: as above

Curricular Design: At the Stanford EM residency program, we incorporated a monthly 30-minute session into our didactic curriculum. Two residents present the A&A case chosen as a "Save of the Month," focusing on the contributions of the entire healthcare team-physicians, nurses, techs, pharmacist, consultants, etc. Each resident describes the case, highlighting key concepts, critical actions by the care team, and other contributing systems processes that led to the "Save" or exemplary performance. The resident shares the framework as clinical pearls for colleagues to apply in similar challenging clinical scenarios. After 6 total sessions, a survey was administered to residents to evaluate their perceived value of the didactics in their education. Ultimately 26/60 residents completed the survey. Unanimously, 100% of respondents reported A&A was a valuable addition to their curriculum, and 96% of respondents voted to keep A&A in the curriculum. Many comments focused on A&A's positive impact on residency morale.

Impact/Effectiveness: Our resident response to the Amazing and Awesome didactics in GME helps identify a gap in potential learning opportunity and potential morale improvement, and this series could easily be implemented by other programs.

2 Development of a Rigorously Designed Procedural Checklist for Emergent Cricothyrotomy for Assessment of Emergency Medicine Resident Performance

Andrew Rogers, Dana Loke, Maren Leibowitz, Elizabeth Stulpin, Morgan McCarthy, David Salzman

Learning Objectives: The objective was to create an assessment tool for emergent cricothyrotomy using best practice checklist development and expert consensus.

Introduction/Background: Emergent cricothyrotomy is an infrequently performed, potentially life-saving procedural skill that is essential for emergency physicians to master during residency training. However, opportunities for real-life exposure to perform this procedure during residency is rare and ensuring emergency medicine graduates can perform this procedure correctly is essential. For rare, invasive procedures such as cricothyrotomy, checklist simulation assessments allowing for objective measures are best practice for competency based medical education. However, the literature for performing emergency cricothyrotomy is descriptive, not inclusive of evaluative checklists, and lacking a checklist that allows for multiple cricothyrotomy techniques.

Educational Objectives: The objective was to create an