

## **UC Irvine**

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### **Title**

Learner-Driven Evaluations and Outcomes During Fourth Year Emergency Medicine Sub-Internship

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**OBSERVATIONS:** Results reported with descriptive statistics. Core faculty MBI results are shown comparing Y0, Y1 and Y2 by each participant.

**Results:** Faculty experienced an average improvement of 4.8 points, 3.0 points and 2.5 in EE, D and PA scores demonstrating trends toward improvement in Wellness. Maslach Wellness Profiles improved in 33% and stayed the same in 53% of participants.

**Conclusions:** While the sample size is small, this study demonstrates unique insight to faculty wellness during a time of transition. We demonstrated a trend toward wellness improvement.

### 37 Change in Attendance During a Virtual Emergency Medicine Conference Day

*William Dewispelaere, Adane Wogu, Nannan Wang, Spencer Tomberg*

**Background:** Many emergency medicine (EM) residency programs transitioned in-person didactic days to virtual settings during COVID-19 (1). Virtual education has advantages including accessibility and adaptability (2). Downsides include loss of focus and effective learning strategies (3,4,5), however, changes in attendance throughout a virtual education day are not well-studied.

**Objectives:** This study explored learner attendance in the virtual setting by quantifying learner attrition during virtual conference days. Our hypothesis was that there would be a significant decline in attendance throughout the education session.

**Methods:** Design: This was a retrospective observational study that spanned 4 months at a single EM residency program where didactic conference runs for 5 hours. Each conference starts with 90 minutes of morbidity and mortality (M&M) and is followed by didactic education sessions. Observations: The number of participants logged into a virtual meeting were calculated at 30-minute intervals. Comparisons in attendance were made between subsequent intervals. We used generalized estimating equations to calculate appropriate incident rate ratios (IRR) and 95% confidence intervals (95% CI) for each time point. Colorado Multiple IRB approval was obtained for the study.

**Results:** Average attendance peaked at 121 participants during M&M at 8:30am (Table 1). There was a 23% decline after M&M ended at 9:00am (p<0.001). There was a decline in participation throughout the rest of the conference day (Figure 1). By the last timepoint, there were an average of 32 participants left in the meeting, which is a 74% decline from peak participation.

**Conclusions:** This study demonstrates a decline in participation over the five-hour education day. Our findings may support limiting the length, or frequency, of virtual

education sessions as emergency medicine residencies choose how to incorporate virtual education into their didactic learning platforms.

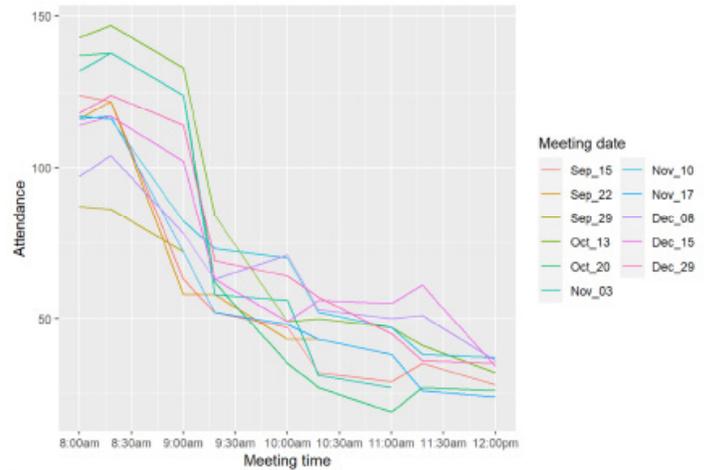


Figure 1. Participation throughout event.

Table 1. Average attendance during M&M.

Time	[min, max]	mean (SD)	IRR (95%CI)	p-value
8:00am	(87, 143)	116.3 (16.3)	-	-
8:30am	(88, 147)	121.0 (16.8)	1.02 (1.01, 1.04)	0.003
9:00am	(68, 133)	92.9 (27.2)	0.77 (0.68, 0.87)	<0.001
9:30am	(52, 84)	63.4 (9.8)	0.48 (0.21, 1.08)	0.077
10:00am	(35, 71)	53.2 (11.8)	1.02 (0.58, 1.80)	0.932
10:30am	(27, 57)	44.4 (11.0)	0.80 (0.68, 0.96)	0.018
11:00am	(19, 55)	39.7 (12.2)	0.68 (0.29, 1.58)	0.370
11:30am	(20, 61)	39.4 (11.8)	1.52 (0.68, 3.51)	0.321
12:00pm	(24, 37)	31.5 (4.9)	0.63 (0.35, 1.12)	0.113

### 38 Learner-Driven Evaluations and Outcomes During Fourth Year Emergency Medicine Sub-Internship

*Allison Beaulieu, Sofia Tuttle, Rowan Kelner, Christine Raps, Robert Stephen, Susan Stroud*

**Background:** A learner-driven feedback model allows learners to take an active role in their growth and development. The model improves the quality and quantity of feedback received; however, it is unknown if it impacts performance.

**Objectives:** The purpose of this study is to assess the performance outcomes of a learner-driven evaluation model.

**Methods:** A retrospective observational study was employed to review 2441 evaluations from 141 medical students during a 4-week EM sub-internship at an academic center between 2021-2023. Learner-driven evaluations were completed by faculty and senior residents on a Likert scale (0-4). The relationship between number of evaluations and outcomes was analyzed using correlation and linear regression.

Subgroups were compared using a Welch paired t-test.

**Results:** Students received an average of 17 evaluations, evaluation score of 3.46, SAEM score of 81.2 and course grade of 3.47 (Table 1). There was a positive and statistically significant correlation between number of evaluations and evaluation score, number of evaluations and final course grade, and number of evaluations and SAEM test score (Figure 1). There was a statistically significant gender difference in the number of evaluations received, average evaluation score, and final course grade (Table 1). There was no statistically significant gender difference in SAEM score or in any outcome between DO and MD students. EM-bound vs non-EM bound students had a statistically significant difference between all outcomes.

**Table 1.** Descriptive statistics and analysis of fourth year medical students their EM sub-internship.

	Number of students	Number of evaluations		Evaluation score		SAEM score		Final course grade	
		mean	SD	mean	SD	mean	SD	mean	SD
<b>Identifies as</b>									
Male	83	16.2 ]	14.8-17.6	3.43 ]	3.38-3.48	80.7	79.3-82.1	3.41 ]	3.36-3.46
Female	58	18.9 ]	17.5-20.4	3.57 ]	3.51-3.63	81.9	80.3-83.5	3.55 ]	3.49-3.62
<b>Declared specialty</b>									
EM	108	18.8 ]	17.8-19.9	3.53 ]	3.48-3.57	82.4 ]	81.2-83.6	3.51 ]	3.47-3.56
Non-EM	33	12.3 ]	10.3-14.3	3.35 ]	3.28-3.42	77.1 ]	75.1-79.1	3.32 ]	3.26-3.39
<b>Degree</b>									
MD	134	17.1	16.8-18.3	3.50	3.46-3.54	81.3	80.8-82.5	3.48	3.44-3.53
DO	27	18.2	15.6-20.7	3.43	3.30-3.55	80.8	78.5-83.1	3.41	3.30-3.52
<b>Overall</b>	141	17.3	16.3-18.4	3.49	3.44-3.53	81.2	80.1-82.2	3.47	3.38-3.56

CI = confidence interval  
 \*p < 0.05 via Welch Two-Sample t-test  
 \*\*p < 0.001 via Welch Two-Sample t-test

**Conclusion:** This study identified a weakly positive correlation between number of evaluations and performance. In addition, important gender differences were noted. Further investigation is needed to explore these relationships while accounting for potential influencing factors. Limitations include inability to track evaluations distributed by students. In the future, learner-driven evaluations could be implemented to improve learner engagement and performance.

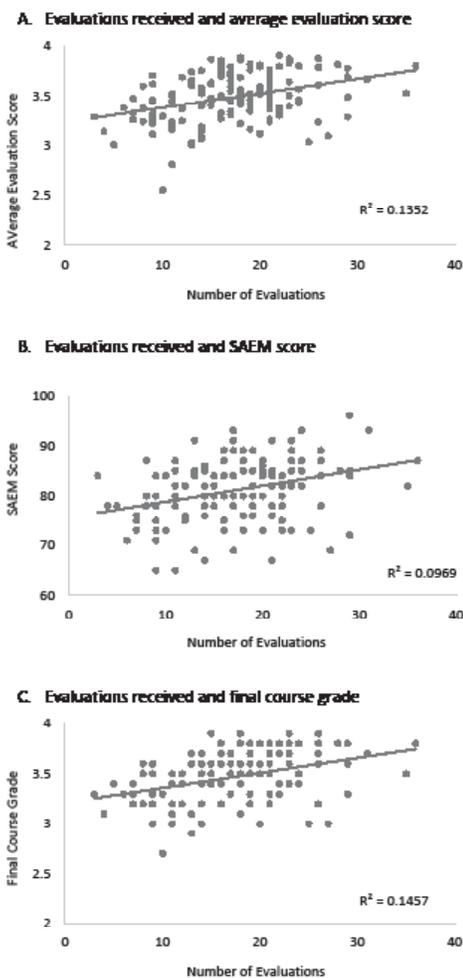
## 39 Moving Beyond Talking the Talk: Implementation of Student Competency Assessment in Social EM

Emily Craft, Andrew Golden

**Background:** EM has placed increasing value on educating trainees on the social determinants of health (SDH). Minimal data exist describing the assessment of trainees on this skill in the workplace.

**Objectives:** The goals of this project were: (1) determine EM faculty members' abilities to assess acting interns (AI) in identifying and mitigating SDH in the ED and (2) evaluate the frequency of entrustment ratings on this task in a cohort of AIs. We hypothesized faculty would have a high rate of being unable to assess AIs in this skill. When assessed, we hypothesized AIs would be rated with lower entrustment scores in this task.

**Methods:** We previously modified the National Clinical Assessment Tool (NCAT) in EM to include an item about the recognition and mitigation of SDH. Using a retrospective observational design, we examined each assessment for AIs by EM faculty at a single institution between June-October 2023. The number of NCATs completed without answering the SDH question and the frequency of ratings for this item were recorded. ANOVA and Tukey analyses evaluated for differences of AIs' mean scores on the SDH question and their Standardized Letter of Evaluation (SLOE) ranking as determined by our SLOE committee.



**Figure.** Linear regression models of number of evaluations received and course outcomes per student, including R<sup>2</sup> and R (correlation coefficient). **A.** Number of evaluations compared to average evaluation grade, R=0.37\*. **B.** Number of evaluations compared to SAEM grade, R=0.31\*. **C.** Number of evaluations compared to final course grade, R=0.38\*. \*P-value <0.001.