

## UC Irvine

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### Title

A Report on Physician Wellness during the Transition from Community EM Physicians to Faculty in a New Residency Training Program

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### 35 A Comparison Between In-Person and Video Conference Lectures on Medical Student Ultrasound Education

Alina Mitina, Alyssa Auerbach, Angela Cirilli, Ellen Kurkowski, Connie Yu, Conor Davenport, David Beckett

**Background:** Increasing priority has been placed on teaching point of care ultrasound (POCUS) while in medical school. Meanwhile, education has generally been shifting to virtual platforms. Despite some return to in-person learning, it is worthwhile to evaluate the efficacy of virtual learning, which may increase access to ultrasound education.

**Objectives:** Evaluate if virtual ultrasound lectures deliver information as effectively and increase learner confidence similarly to in-person lectures.

**Methods:** This cohort study anonymously surveyed medical students from three universities to analyze learner confidence and information retention from both in-person and videoconference lectures about the extended focused assessment of trauma (eFAST) exam. Both 30-minute lectures were given live, with a 10 minute demonstration on a model, and pre- and post-lecture surveys. Neither had hands-on training.

**Results:** 117 learners were included (38 in-person, 79 virtual). A two-tailed T-test assuming unequal variances indicated significant improvement in percentage correct between pre- and post-tests ( $p < .001$ ), (32.2% in-person and 36.9% virtual). There was no significant difference between the intervention groups' pre- or post-test scores ( $p = .23$  and  $p = .40$ , respectively), indicating both interventions had similar knowledge baseline and gain. Both groups showed an improvement in confidence following the sessions (mean improvement of 1.7 points in-person, 1.8 virtual) which was not significantly different between the groups ( $p < .01$ ).

**Conclusions:** There was no demonstrated significant difference in learned information or learner confidence between in-person and virtual didactics, indicating students may attain the same content and confidence through both modalities. This study is limited due to non-paired surveys, making it difficult to analyze individual learners. Future work may include repetition with paired surveys, other ultrasound content, and general medical education.

### 36 A Report on Physician Wellness during the Transition from Community EM Physicians to Faculty in a New Residency Training Program

Robyn Hoelle, Hannah Mishkin, Thomas Bentley, John DiFebo, Joseph Roesch

**Background:** Physician wellness continues to be an important focus, especially in EM. New residency training

sites include community hospitals with new graduate medical education (GME) infrastructure. How does transitioning from a community hospital to a teaching site effect physician wellness? This paper reports demographics and self-perceptions of community physicians who are transitioning to faculty at a new teaching site. We report new faculty member's emotional exhaustion (EE), depersonalization (D) and personal accomplishment (PA) scores throughout the transition.

**Objectives:** EM physicians who transition from community doctors to faculty in a residency training program will show trends toward improved wellness using the Maslach Burnout Inventory™ (MBI).

**Methods:** DESIGN: This study is a retrospective observational study. SETTING: Community hospital where GME programs started three years prior to a new EM program beginning. PARTICIPANTS: EM physicians transitioning from community doctors to faculty in a new residency program took the MBI and a survey about their perceptions of the transitions the month before the residents arrived (Y0), one year later (Y1) and two years later (Y2).

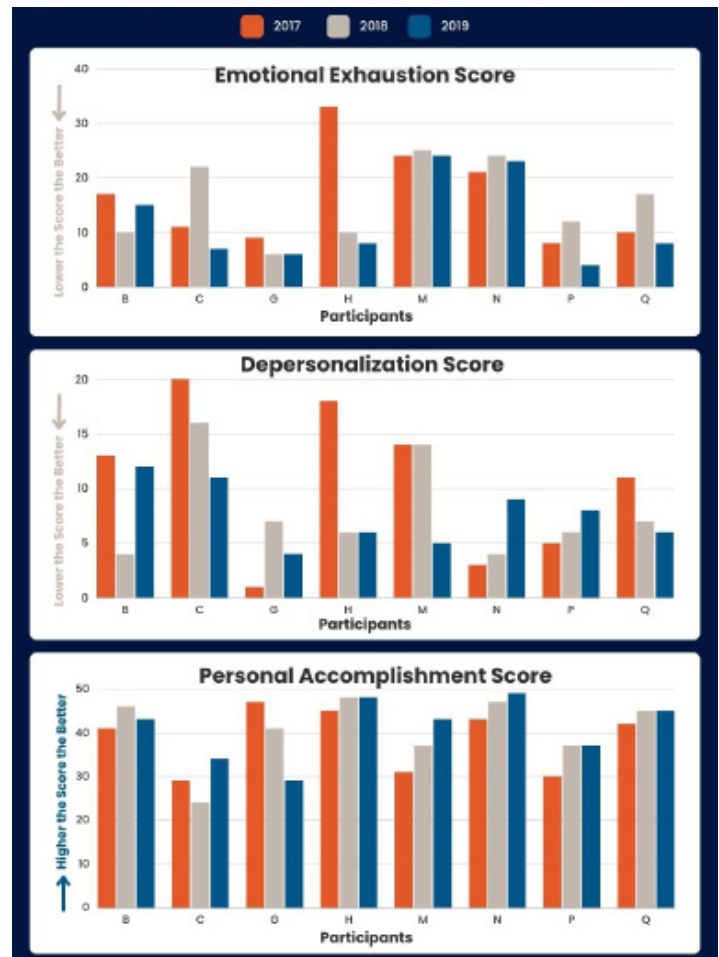


Figure. Maslach Burnout Inventory™ trends for the first three years of transition.

**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.

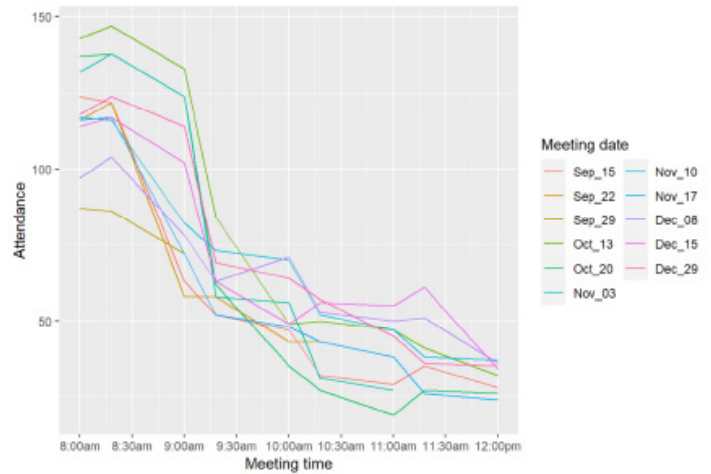


Figure 1. Participation throughout event.

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.