Title

Measures of Clinical Performance and Communication Skills of EM Residents on Simulated Resuscitations are not Correlated

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management in the emergency department. There was an increase in comfort levels of all 5 areas tested. Additionally there was an increase in knowledge base on all 6 questions tested. Overall feedback was that the students appreciated and enjoyed these lectures.

Conclusions: Lectures dedicated to acute pain management improved both knowledge base and comfort level for medical students, filling a gap in current medical education.
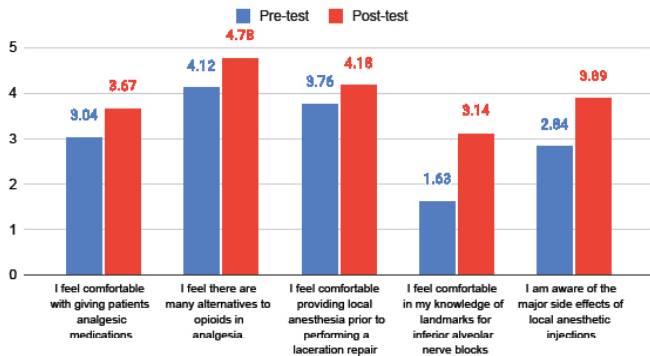

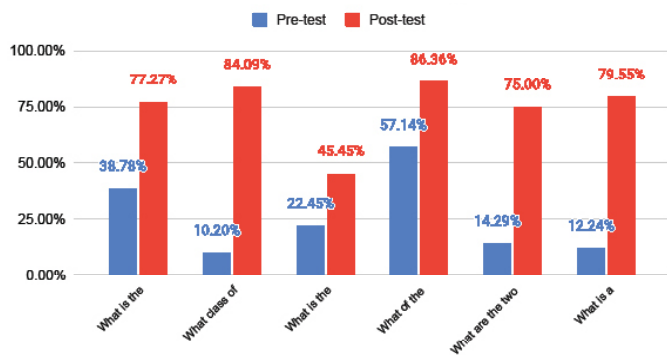**Figure 1.** Pre- and post- intervention comfort assessment.

Figure 2. Pre- and post-intervention knowledge assessment.

43 The Impact of a Social Media Campaign on Applications for an Emergency Medicine Acting Internship

Shagun Berry, Lauren McCafferty, Andrew Golden

Background: Applications to EM residencies have been decreasing. We designed a social media (SM) campaign to highlight our education programs in an attempt to increase our acting internship (AI) applicant pool.

Objectives: The objectives were to (1) evaluate the association of a SM campaign to changes in the number and demographics of applicants to our EM AI and electives, and (2) evaluate for temporal trends in applications related to SM posts. We hypothesized our SM campaign would increase the number of applicants to our AI and electives from an increasingly diverse geographic range.

Methods: A 5-video SM campaign was created in March 2023 to highlight our institution's AI experience. Data was collected from the Visiting Student Learning Opportunities on the number of applicants, total applications to the AI and all clinical electives for the 2022 (control) and 2023 (intervention) cycles. Chi-squared analysis was performed for categorical data. Student's t-test was performed for continuous variables. Temporal trends were analyzed as a cumulative frequency graph relative to the dates of publication for the posts.

Results: There were non-significant increases in the number of applicants for the AI (18%, 60 vs 71; $X2(1, N=6529)=1.78$, $p=0.18$) and all clinical electives (25%, 69 vs 86; $X2(1, N=6529)=3.16$, $p=0.08$). There were also increases in the number of applications for the AI (30%, 131 vs 171) and all clinical electives (53%, 166 vs 254). The geographic distribution of applicants ($X2(1, N=131)=0.42$, $p=0.51$) and composition of MD- vs DO-applicants ($X2(1, N=131)=0.66$, $p=0.42$) to the AI did not change. Temporal relationships between cumulative number of all applicants and timing of SM posts are seen in Figure 1.

Conclusion: Our SM campaign was associated with an increase in the number of applicants and applications to the AI and electives, although this was not statistically significant. Figure 1. Graph of cumulative applications with video launches.
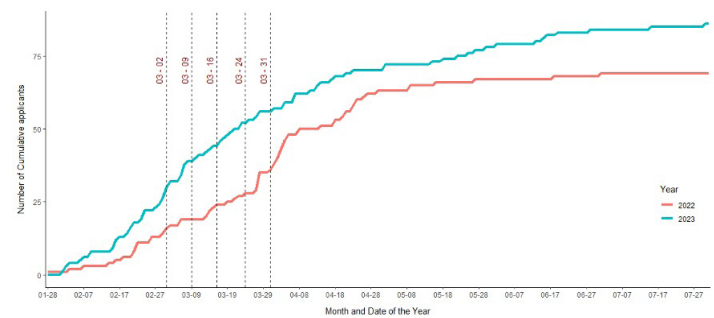
Figure 1. Cummulative applications with video launches.

44 Measures of Clinical Performance and Communication Skills of EM Residents on Simulated Resuscitations are not Correlated

Bryan Kane, Jeremiah Ojha, Diane Begany, Matthew Cook, Nicole Elliot, Michael Nguyen

Background: Prior publications evaluated multi-source feedback (MSF) and communication of EM residents managing a high-fidelity simulation (sim) case.

Objective: This project seeks to determine if a correlation exists between clinical performance and communication.

Methods: This planned secondary analysis of an IRB approved database enrolled EM residents from a PGY 1-4 residency. Both sims were toxic ingestions: an adult ACLS case conducted in the sim lab and a PALS case conducted in-situ in a pediatric ED. MSF feedback was generated using a Queens Simulation Assessment Tool (QSAT) specific to the case from self-evaluation, a junior resident, an EMS provider (adult), a nurse (2 peds) and two EM faculty. In both sims communication to a consulting toxicologist and admitting intensivist were measured using the 5C's model. The summed QSAT and 5C scores were correlated using Pearson's correlation coefficient with Fisher's z transformation; interpreted as weak (<0.3), moderate (0.3-0.7) and strong (>0.7). Significance was set at 0.05. Positive correlation indicates synchronous movement of scores.

Results: In the adult sim, 32 residents were enrolled (Table 1). There was a moderate positive correlation between attending QSAT and intensivist 5C scores [r=0.332, 95% CI (-0.032, 0.618)], the remaining correlation comparisons were weak, and all were without statistical significance. In the ped sims, 34 residents were enrolled. Those correlations, presented in Table 2, were all weak and without significance.

Table 1. Correlation of QSAT and 5C's score in all residents for adult simulations.

QSAT Metric	5C's Metric	n*	Standard Correlation Coefficient (r)[a]	Fisher's z Transformed Coefficient (zr) (95% CI)[b]	p-value[c]
Average (All Raters)	Average (Toxicologist & Intensivist)	30	0.249	0.254 (-0.122, 0.559)	0.1865
Average (Attendings Only)	Average (Toxicologist & Intensivist)	30	0.026	0.026 (-0.338, 0.383)	0.8933
Average (Attendings Only)	Toxicologist Only	32	0.135	0.136 (-0.224, 0.462)	0.4639
Average (Attendings Only)	Intensivist Only	30	0.332	0.345 (-0.032, 0.618)	0.0728

*4 assessments were missing either the Tox or Int 5C's score, therefore the average score is also missing, which changes the n depending upon the correlation pairing;
[a]Pearson correlation coefficient
[b]Fisher's z transformed Pearson correlation coefficient;
[c]p-value corresponds to the Fisher's z transformed correlation coefficient and 95% CI

Table 2. Correlation of QSAT and 5C's score in all residents for pediatric simulations.

QSAT Metric	5C's Metric	n*	Sample Correlation Coefficient (r)[a]	Fisher's z Transformed Coefficient (zr) (95% CI)[b]	p-value[c]
Average (All Raters)	Average (Toxicologist & Intensivist)	31	0.059	0.059 (-0.302, 0.405)	0.7554
Average (Attendings Only)	Average (Toxicologist & Intensivist)	31	0.041	0.041 (-0.318, 0.390)	0.8275
Average (Attendings Only)	Toxicologist Only	32	0.224	0.228 (-0.135, 0.531)	0.2194
Average (Attendings Only)	Intensivist Only	34	-0.158	-0.159 (-0.471, 0.190)	0.3752

*4 assessments were missing either the Tox or Int 5C's score, therefore the average score is also missing, which changes the n depending upon the correlation pairing;
[a]Pearson correlation coefficient
[b]Fisher's z transformed Pearson correlation coefficient;
[c]p-value corresponds to the Fisher's z transformed correlation coefficient and 95% CI

Conclusions: Based on this single site cohort, there does not appear to be a correlation between clinical performance and communication skill among EM residents on sim cases. This negative finding could be influenced by the sample size, though use of the Fisher's z transformation was an attempt to control for type two error. If correct, this suggests that residency programs should ensure that clinical and communication skills are measured independently.

45 Time Isn't Your FoCUS, Do Cardiac POCUS!

Austin Barnett, William Hunnicutt, Phillip Barnett, Mirinda Gormley, John Eicken

Background: Point-of-care ultrasound (POCUS) is a powerful diagnostic tool which can improve quality and efficiency of care. Clinicians often cite time as a limitation to performing a focused cardiac ultrasound (FoCUS) exam.

Objectives: The primary outcome of this study was to determine the amount of time to complete a quality FoCUS exam. Secondary outcomes evaluated time differences between different training levels.

Methods: Data came from six EDs within Prisma Health from July 1, 2019 - June 30, 2022. Groups included were EM residents (PGY1-PGY3), EM ultrasound (US) fellows, US fellowship-trained EM attendings, and EM attendings credentialed in US. An equal number of exams were randomly selected and reviewed from each group. Exams must have been performed for clinical purposes and received an image quality rating of 3 (average), 4 (good), or 5 (excellent) to be eligible. All patients were age 18 years or older. Time of acquisition was defined as the time difference between the first and final image clips (clips = 6 seconds). Chi-square, T-tests, analysis of variance, and linear regression were performed to evaluate the data obtained in the study.

Results: Of 600 exams, 34% had 3 views and 55.5% had 4 views. The majority of studies (78.9%) had quality ratings of 4 or 5. Attendings had a higher proportion of exams with a quality rating of 5, while residents had more exams with quality ratings of 3 and 4. The average time for all groups to complete a FoCUS was 3.4 minutes. Further analysis shows that residents took on average 3.8 minutes and attendings took 3.1 minutes. On average, PGY1s took 4.6 minutes, PGY2s took 4.0 minutes, and PGY3s took 2.8 minutes (p = <0.0001).

Conclusions: Our study shows it takes EM physicians on average 3.4 minutes to complete a quality FoCUS exam and residents took only 45 seconds longer compared to attendings. Our findings suggest that time should not be a limitation to perform a FoCUS exam on patients who present to the ED.