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elective were discussed in the group debrief. A post-elective survey was sent to all participants to assess their perceptions of the elective experience. Impact/Effectiveness: Over 20 projects were completed including: educational infographics for the community, design of a lung ultrasound protocol for a local ED, broadcasting of a commercial for a local cable station, a pandemic simulation case series, and development of frequently asked questions regarding Covid-19 for pregnant patients. In the post-rotation evaluation, 12/13 (92.3%) participants answered the question “How satisfied are you with the Population Health elective?” with either “Very Satisfied” or “Satisfied.” This elective rotation, although designed out of necessity, turned out to be one of the most productive elective experiences to date at our institution and could be adopted by other institutions needing to work while maintaining social distancing.

43 Resuscitation Leadership Training for Emergency Medicine Residents

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Learning Objectives:

Emergency medicine residents must learn to lead teams in high-acuity dynamic situations, but most do not undergo formal leadership training. We developed a simulation course to teach leadership and communication skills using resuscitation scenarios and the tenets of crisis resource management.

Abstract:

Introduction: The ability to lead and communicate effectively with team members in dynamic, high-stress situations is expected of graduating EM residents. Nevertheless, most residents do not undergo formal leadership training, instead learning these skills by observing senior residents and attendings before being thrust into the team leader role themselves.

Educational Objectives: We seek to develop a training course to teach leadership and communication skills to junior residents. The goal of this curriculum is to facilitate the transition from junior to senior resident by improving team skills that are often difficult to teach but imperative to the growth of emergency medicine physicians.

Curricular Design: We developed a curriculum called Resuscitation Leadership Training, using high-fidelity simulation and the tenets of crisis resource management to improve the leadership skills of junior EM residents, specifically with critical care scenarios. We used the TeamSTEPPS framework to teach leadership and teamwork, using a combination of didactic learning, simulation cases, and deliberate practice to hone these skills. We intentionally created simulation cases that involved critically ill patients, as these require the leading senior resident or attending to coordinate with a larger medical team in dynamic situations. We anticipated that participation would specifically improve residents’ comfort in leading resuscitations and their

ability to communicate effectively with their team. We also anticipated that after completing this curriculum, residents would feel more comfortable with the medical management of similar critical patient cases.

Impact: This curriculum was well received by residents and considered highly effective. Survey data of participating residents showed statistically significant improvements in their self-perception of leadership and communication skills, as well as comfort in managing patients with the presentations they were tasked with.

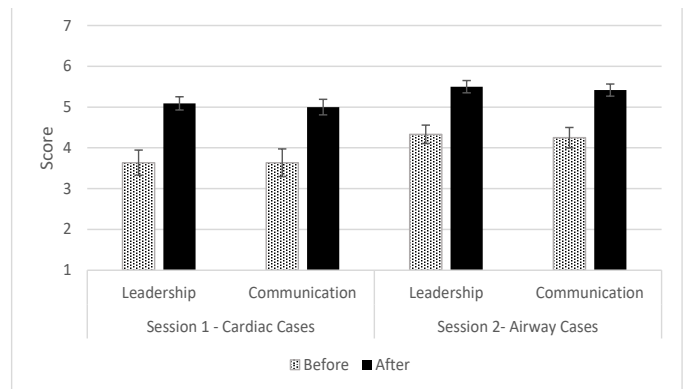


Figure 1. Leadership and communication survey results from both sessions. Residents were asked after each session to rate how ready they felt to lead a resuscitation before and after completing the course, where 1 = not at all ready and 7 = very ready; the mean scores and standard errors are listed here under “Leadership.” Residents were also asked after each session to rate how effective their communication skills were before and after completing RLT, where 1 = not at all effective and 7 = very effective; the mean scores and standard errors are listed for each session under “Communication.”

Table 1. Case-specific survey results.

Case		Mean Comfort Score	Standard Error	Standard Deviation	95% Confidence Interval	t-score (p-value)
STEMI	before	4.55	0.31	1.04	3.85 - 5.24	6.53 (p<0.01)
	after	5.82	0.23	0.75	5.31 - 6.32	
PE	before	4.36	0.41	1.36	3.45 - 5.28	5.16 (p<0.01)
	after	5.82	0.30	0.98	5.16 - 6.48	
WCT	before	3.55	0.25	0.82	2.99 - 4.10	8.03 (p<0.01)
	after	5.36	0.28	0.92	4.74 - 5.98	
Flash	before	4.82	0.35	1.17	4.03 - 5.60	4.08 (p<0.01)
	after	5.86	0.27	0.90	5.26 - 6.47	
Shock	before	5.50	0.19	0.67	5.07 - 5.93	5.74 (p<0.01)
	after	6.25	0.18	0.62	5.86 - 6.64	
Asthma	before	3.83	0.24	0.83	3.30 - 4.36	9.95 (p<0.01)
	after	5.33	0.14	0.49	5.02 - 5.65	
ICH	before	4.50	0.23	0.80	3.99 - 5.01	7.00 (p<0.01)
	after	5.67	0.14	0.49	5.35 - 5.98	
ARDS	before	3.58	0.29	1.00	2.95 - 4.22	6.09 (p<0.01)
	after	5.17	0.17	0.58	4.80 - 5.53	

Residents were asked to rate their comfort managing each case before and after completing RLT, where 1 = not comfortable and 7 = comfortable. The mean scores for each response are recorded with the standard errors, standard deviations. The t-scores were calculated using paired samples t-tests with significance assumed at a 95% confidence interval.

STEMI, St-elevation myocardial infarction; PE, pulmonary embolism; WCT, wide complex tachycardia; Flash, flash pulmonary edema; Shock, septic shock; asthma, asthma exacerbation; ICH, intracranial hemorrhage; ARDS, acute respiratory syndrome.