Title

Use of Preferred Learning Styles in an Emergency Medicine Residency Academic Remediation Program

Authors

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Repeat participants were excluded from analysis. Students t-test was employed to assess for significance.

Results: 51 participants were included in the analysis. The average pre-test score was between poor or average (2.83). After completing the escape room and debrief session, the post test score significantly increased to between average and above average (3.9) (p=0.0015). Anecdotal feedback indicated all ubiquitously enjoyed the escape room format as compared to traditional lecture across training levels.

Conclusions: Escape rooms can be formatted for various toxicology concepts for undergraduate and graduate medical education and can generate substantial shifts in perceived content mastery across various levels of training.

65 Emergency Medicine Resident Scheduling: A Survey of Processes and Satisfaction

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Background: EM resident scheduling practices are important contributors to resident wellness while also placing time and financial demands on residency program leadership. Very little literature exists describing EM resident scheduling platforms.

Objective: We sought to summarize current EM residency scheduling practices.

Methods: We conducted a cross-sectional, convenience sample survey of EM residency programs in the summer of 2023 using Qualtrics. Subjects were recruited via two emails to the CORD listserv. Questions were piloted with program directors whose data were not included in analysis, with edits made for clarity based on feedback. We collected information on manual versus automated resident scheduling practices and resident and scheduler satisfaction. We examined relationships between resident and scheduler satisfaction using Spearman correlations. Relationships between satisfaction and scheduling software and characteristics were examined using Mann-Whitney U tests. Survey questions without answers were coded as "Unknown."

Results: We received 19 survey responses, representing all geographic regions. Two programs (11%) reported scheduling manually. ShiftAdmin was the most popularly reported scheduling software (53%). Resident and scheduler satisfaction were modestly correlated (Spearman Rho = 0.38). Compared to the other software-based scheduling platforms and automated scheduling, manual scheduling had the lowest resident satisfaction score. Programs with <30 residents reported the highest levels of satisfaction. None of these relationships reached the threshold for statistical significance. Common dissatisfiers with software-based scheduling included cost, suboptimal automation algorithms, and steep learning curves that new chief residents encounter annually.

Conclusions: Although satisfaction with manual scheduling was low, dissatisfiers with automated scheduling highlight a dire need for improvement in existing technologies.

Table 1. Relationships of schedule platforms and characteristics with resident and scheduler satisfaction.

	Resident Satisfaction mean (median)	P-Value	Scheduler Satisfaction mean (median)	P-Value
Overall				
Study Sample (n = 19)	3.2 (3)	-	3.4 (3)	-
Scheduling Platform				
Manual (n = 2)	2.5 (2.5)	reference	3 (3)	reference
MedRez (n = 2)	3.5 (3.5)	0.67	3 (3)	0.99
MetrixAid (n = 1)	4 (4)	0.99	4 (4)	0.99
Qgenda (n = 3)	3 (3)	0.99	2.3 (3)	0.99
ShiftAdmin (n = 10)	3.3 (3)	0.73	3.7 (3.5)	0.82
Qgenda/ShiftAdmin (n = 1)	4 (4)	0.99	4 (4)	0.99
Scheduling Format				
Manual (n = 2)	2.5 (2.5)	reference	3 (3)	reference
Automated (n = 7)	3.3 (3)	0.76	3.4 (4)	0.99
Combination (n = 9)	3.2 (3)	0.71	3.2 (3)	0.99
Unknown (n = 1)	5 (5)	0.67	5 (5)	0.99
Scheduling Practice Length				
< 2 years (n = 4)	2.8 (3)	reference	2.8 (3)	reference
2 – 4 years (n = 7)	3.7 (4)	0.28	3.3 (3)	0.63
4 – 6 years (n = 3)	3.3 (4)	0.58	3.3 (3)	0.69
>6 years (n = 5)	3 (3)	0.79	4 (4)	0.20
Number of Residents				
≤ 30 (n = 4)	4 (4)	reference	3.75 (3.5)	reference
> 30 (n = 10)	3.4 (3.5)	0.25	3.2 (3)	0.50
Unknown (n = 5)	2.4 (2)	-	3.4 (3)	-

P-Values from Mann-Whitney U tests with manual scheduling, scheduling practice length < 2 years, and programs with ≤ 30 residents as the references.

66 Use of Preferred Learning Styles in an Emergency Medicine Residency Academic Remediation Program

Anthony Sielicki, Dylan Krause, Jessica Parsons Claire Abramoff, Deborah Pierce

Background: Many trainees encounter difficulties with the acquisition of fundamental knowledge or skills necessary to practice independently. The ACGME requires remediation plans that are tailored to the individual needs of the struggling learner. Few resources are given to help generate these required tailored plans.

Objectives: We aimed to examine the effectiveness of Kolb Preferred Learning Styles in the development of learning plans for EM residents on academic remediation. We predicted that it would be more effective in preparing residents for success on the In-Training Exam (ITE) compared to education-as-usual.

Methods: This is a prospective study at an academic, urban hospital. Residents who scored less than the 30th percentile on the ITE were placed on academic remediation. All took the Kolb Learning Styles Inventory V. 3.1 to discover their preferred learning style. A learning contract was generated using activities that fit with their style. Their ITE scores in the following year were compared to their initial ITE score.

Results: 14 residents in the 2020-2021 academic years

were included in the control group. 10 residents in the 2021-2022 academic years were included in the experimental group. There were no significant differences in the mean percentile on their initial ITE (control 18.1, experimental 13.8, p=0.09). There was significant improvement in the experimental group compared to control group using a one-tailed t-test (control 13.4, experimental 27, p=0.047).

Conclusions: Individualized learning contracts with activities fitting the Kolb Preferred Learning Style yielded a higher percentile improvement on the ITE when compared to educational activities-as-usual in the prior academic year. This supports the ACGME requirement for individualized learning plans and should be considered for more widespread use.
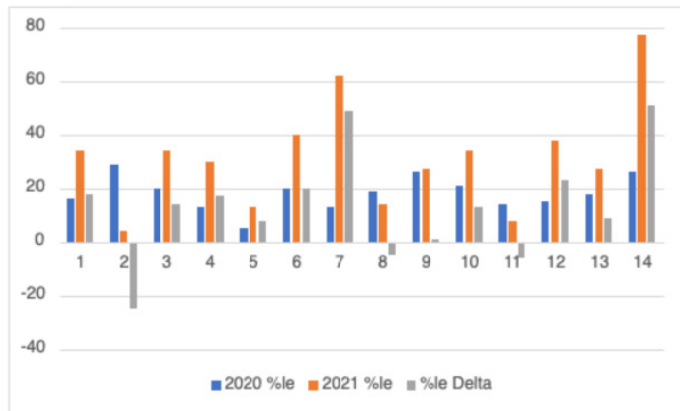

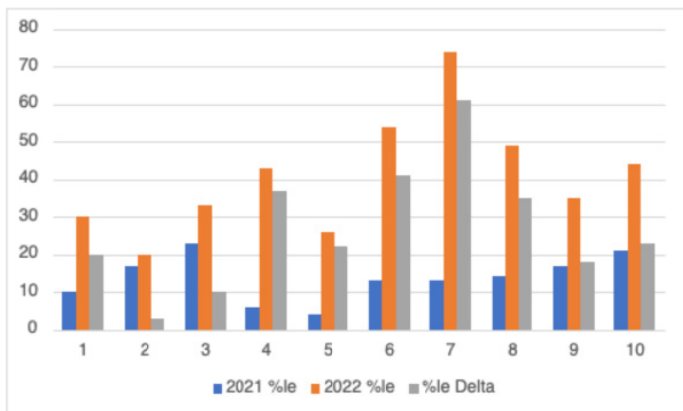**Figure 1.** Academic yers 2020-2021 ITE scores.

Figure 2. Academic years 2021-2022 ITE score.

67 Informed Consent Practices in an Academic Department of Emergency Medicine

Sarah Russell, Nancy Jacobson, Jamie Aranda, Matthew Chinn, Ashley Pavlic, Kathleen Williams, Mary Lewis, Morgan Wilbanks, Ronny Otero

Background: Sparse literature exists on informed consent (IC) practices in adult emergency departments (ED). In one study, half of patients undergoing lumbar puncture had IC documented. In simulation, EM residents obtained adequate IC, but performed poorly on assessing capacity.

Objectives: We aim to assess current IC practices for residents and faculty in the Department of Emergency Medicine (EM). It was hypothesized that practices would be highly varied.

Methods: This is a cross sectional survey study of EM faculty, residents, and advanced practice providers (APPs) at a single site in an academic ED. Respondents indicated their IC practices for common procedures, the time taken for IC, and their comfort level with assessing capacity and obtaining IC. Responses were compared using the fisher's exact test and t-test.

Results: 84 responses were received, representing a response rate of 68.9%. 69.1% (n=58) were EM faculty, 23.8% (n=20) were EM residents, and 7.1% (n=6) were APPs. Practices for obtaining IC were variable. Most reported taking 6-10 minutes to obtain written consent (53.6%; n=45) but only 1-5 minutes to obtain verbal consent (96.3%; n=79). 75.9% (n=63) reported being somewhat or extremely comfortable assessing capacity. However, practices for assessing capacity varied. The most common barriers to IC were the paper form (33.1%; n=46) and on shift bandwidth (51.1%; n=71). There were significant differences between residents and faculty due to a greater proportion of faculty reporting the paper form as a barrier (p=.002) and a greater proportion of residents reporting knowledge of process as a barrier (p= .03). There were no other significant differences between resident and academic faculty responses.

Conclusion: In a single, academic ED, practices for IC and assessing capacity are variable. Future quality improvement efforts are necessary to evaluate the effectiveness of education interventions and systems.
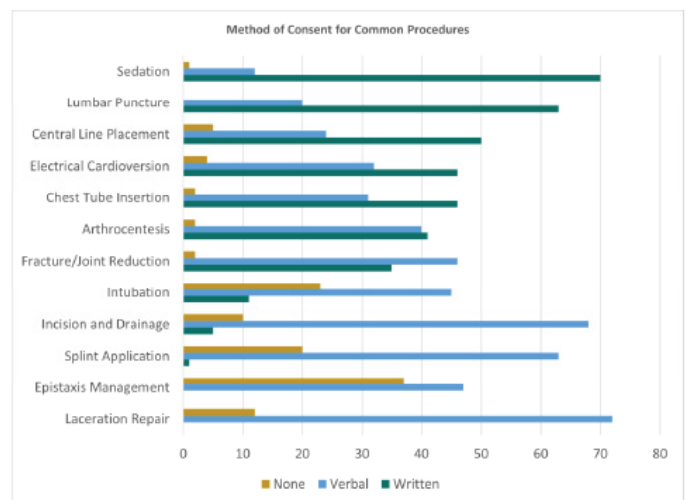

Figure 1. IC practices for common procedures.