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An “Asynchronous” Curriculum: Learner Perspectives in the Time of COVID-19

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while on shift in the ED. The clinical content of on shift EBM questions by EM residents has not been previously described.

Objective: Using the American Board of EM (ABEM) 2019 Model of Clinical Practice of EM, describe EM resident on shift EBM questions.

Methods: This IRB approved study was conducted by a PGY 1-4 EM residency. Residents are required to complete logs of on-shift EBM activity in the program’s procedure software system New Innovations™ (NI). The logs are a convenience sample, with an N of 3-5 per 28 day EM rotation. The logs include a patient description, clinical question, search strategy, information found, and subsequent application. Logs were coded to clinical content areas of the 2019 ABEM Model. The Model provided acuity definitions. ABEM special populations (pediatrics and geriatrics) were identified.

Results: From June 2013 until May 2020, 10,455 discrete completed logs were identified in NI. Table 1 demonstrates log proportion for each of the 20 ABEM content areas. Table 2 contains the most common specific sub-categories. “Emergent conditions” (N=7,770) were most commonly searched ABEM acuity, followed by “lower acuity” (N=5,341) and “critical” (N=5,192). Note, not all conditions have ABEM acuity codes, and some have multiple. Special populations were the source of on shift questions in logs 10.16% (N=1,061) for pediatrics and 8.05% (N=841) for geriatrics.

Conclusions: In this single site cohort “Procedures and Skills” were the most common source of on shift questions for EM residents, perhaps representing just in time training. Trauma was the most common sub-category and, along with toxicology, has a large content outline. Time on shift may have impacted acuity dispersal. Programmatic understanding of resident on shift EBM questions could serve to identify educational gaps and opportunities.

Table 1. EBM log assignments to the 2019 ABEM model of clinical practice.

ABEM Content Area	Number of Logs	Proportion of Total
1. Signs, Symptoms and Presentations	892	8.54%
2. Abdominal and GI Disorders	878	8.41%
3. Cardiovascular Disorders	991	9.49%
4. Cutaneous Disorders	263	2.52%
5. Endocrine, Metabolic, & Nutritional Disorders	292	2.8%
6. Environmental Disorders	142	1.36%
7. Head, Ear, Eye, Nose, Throat Disorders	559	5.35%
8. Hematologic & Oncologic Disorders	244	2.34%
9. Immune System Disorders	252	2.41%
10. Systemic Infection Disorders	472	4.52%
11. Musculoskeletal Disorders (Non-Traumatic)	303	2.90%
12. Nervous System Disorders	801	7.67%
13. Obstetrics and Gynecology	356	3.41%
14. Psychobehavioral Disorders	143	1.37%
15. Renal and Urogenital Disorders	375	3.59%
16. Thoracic-Respiratory Disorders	737	7.06%
17. Toxicologic Disorders	748	7.17%
18. Traumatic Disorders	861	8.24%
19. Procedures and Skills Integral to Practice of EM	1110	10.63%
20. Other Core Competencies to Practice of EM	25	0.24%
Totals	10,445	100%

Table 2. Most common ABEM model of sub-categorical identified in EBM logs.

Rank	ABEM Sub-Category	Number of Logs	Proportion of Total
1	18.1 Trauma	812	7.77%
2	17.1 Drugs and Chemical Classes	749	7.17%
3	1.3 General	527	5.05%
4	19.4 Diagnostic and Therapeutic Procedures	500	4.79%
5	3.5 Diseases of the Myocardium, Acquired	316	3.03%
6	16.4 Obstructive/Restrictive Lung Disease	268	2.57%
7	1.2 Pain	266	2.55%
8	3.3 Disorders of Circulation	263	2.52%
9	2.9 Large Bowel	251	2.40%
10	3.4 Disturbances of Cardiac Rhythm	239	2.29%
11	7.4 Oropharynx/Throat	223	2.13%
12	10.6 Viral	220	2.11%
13	13.3 Complications of Pregnancy	218	2.09%
14	19.5 Ultrasound	182	1.74%
15	16.6 Pulmonary Embolism/Infarct	176	1.69%
16	4.4 Infections	168	1.61%
17	16.7 Pulmonary Infections	164	1.57%
18	2.7 Stomach	163	1.56%
19	19.2 Resuscitation	162	1.55%
20	9.2 Hypersensitivity	159	1.52%
20	19.3 Anesthesia & Acute Pain Management	159	1.52%

7 An “Asynchronous” Curriculum: Learner Perspectives in the Time of COVID-19

Emily Wilkins, MD; Semhar Tesfai, MD; Alejandro Palma, MD; Adriana Segura Olson, MD, MA.Ed

Learning Objectives: To understand the EM resident perception of a newly introduced asynchronous curriculum during the COVID-19 pandemic and assess the effects of the curricular modification on convenience, retention of information, work/life balance, enjoyability, and overall preference for didactic format.

Background: Didactic education in EM residencies has been impacted by the advent of asynchronous learning (AL) and recently by a shift towards remote, web-based conference education due to COVID-19. Although studies demonstrate the efficacy of AL, few have focused on resident reaction to curricular modification and none have looked at resident reaction during the COVID-19 era. We implemented an asynchronous curriculum in the Spring of 2020 that replaced 20% of weekly didactics with one-hour’s worth of online resources. After each module, resident-submitted learning points are reviewed in conference through gamification.

Objectives: This study aimed to evaluate resident perception of a newly introduced asynchronous curriculum. We hypothesized that a combination of didactic conference and AL is more valuable to learners than didactic conference alone, and that in the COVID-19 era of remote weekly conferences, AL is increasingly valuable to the learner.

Methods: A cross-sectional survey was administered online to residents of a 3-year EM program. The survey assessed how residents perceive in-person vs. remote didactics with and without AL. Questions addressed convenience, retention of information, work/life balance, enjoyability, overall preference, and whether residents would like the asynchronous curriculum to continue. Responses

were reported on a 5-point Likert scale.

Results: 32/48 (67%) residents participated. 100% would like the asynchronous curriculum to continue. 84.4% prefer in-person conference with AL to all in-person conference; 90.1% prefer remote conference with AL to all remote conference. Regardless of the modality, residents found that adding AL made didactics more convenient, better for retention of learning, better for work/life balance, and more enjoyable.

Conclusions: EM residents perceive asynchronous learning as a valuable addition to their didactic curriculum and find it even more preferable in the COVID-19 era of remote learning.

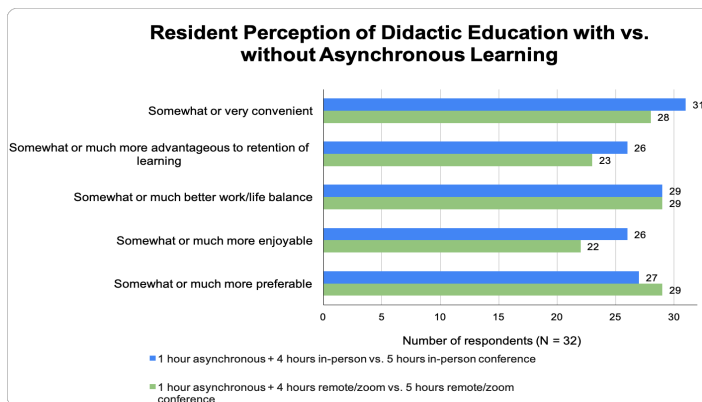


Figure.

8 Analyzing the Effect of Interview Time and Day on Emergency Medicine Residency Interview Scores

Alanna O’Connell, DO; Sean Greco, MS 2; Peter Tomaselli, MD; Megan Stobart-Gallagher, DO; Robin Naples, MD; Dimitrios Papanagnou, MD

Learning Objectives: To analyze whether interview date or time has an effect on residency interview score for applicants to Emergency Medicine residency programs.

Background: The residency interview is essential to successfully match to a residency program. There are many confounding factors to the match success. To date, no studies have examined the association between timing of interview and interview score.

Objectives: The authors sought to retrospectively analyze interview data over the past 3 years to determine if month of interview and time of day influence overall interview score. We hypothesize that overall interview score would not be affected by date of interview or time of day.

Methods: Data from a 3-year EM residency program in an urban academic medical center was examined. Interview data for 3 full interview cycles was reviewed. Interview raw scores, interview date, and time were analyzed. Time of day was created into 2 categorical variables: morning and afternoon. Data points were grouped according to date and

time, with subsequent interview scores recorded adjacently. A regression analysis of the data points was then performed.

Results: There was no statistically-significant difference between date of interview or timing of interview on candidate’s overall interview score. Findings correlate with similar studies in graduate medical education.

Conclusions: Our findings suggest that time of interview during the application season, as well as time of day, do not have a relationship with overall interview score. Findings should reassure applicants that a particular interview slot will not put them at a disadvantage in the match process. Future studies should include interview scoring rubrics from several other programs to ascertain the generalizability of our findings.

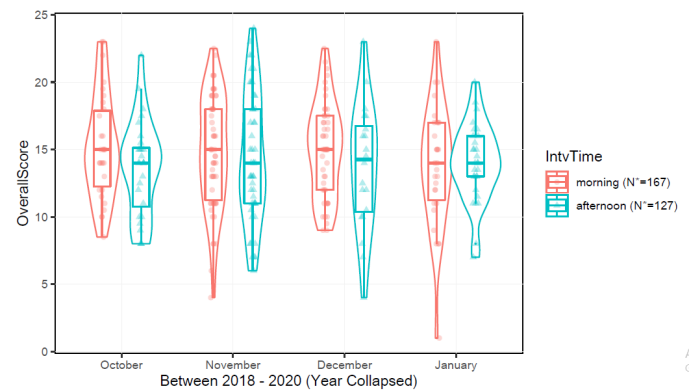


Figure 1. Displaying data from 2018-2020 (with years collapsed) interview scores and the months/times of day applicants were interviewed.

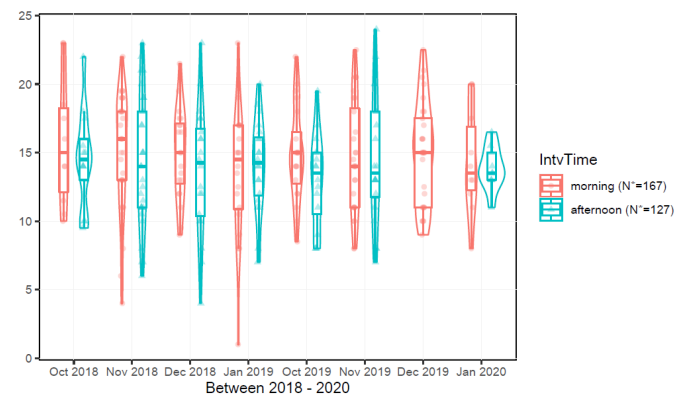


Figure 2. Displaying data from 2018-2020 (individual years) interview scores and the months/times of days applicants were interviewed.

9 Assessment of Horizontal Violence Towards Emergency Medicine Residents in a Single Academic Emergency Department

Ashley Jacobson, MD; Neha Raukar, MD, MS; Lisa Schlitzkus, MD; James Colletti, MD

Learning Objectives: The objective of this study was to