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## Title

The Impact of On Shift Evidence Based Medicine Activity on Patient Care

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emergency physicians by 2030.

**Objectives:** To survey graduating EM residents on their perceptions of the EM job market and its effect on their desire to pursue fellowship training. Methods: We surveyed senior residents (PGY2 and above) at three- and four-year EM residency programs in the greater NYC area. Paper surveys were mailed out to each of the programs with a return envelope; a virtual link to complete the survey was also made available. Surveys were distributed from August 2021 to November 2021 to 22 EM residency programs (695 residents). Participation was voluntary and anonymous. The only demographic information gathered was program name and PGY level.

**Results:** A total of 412 senior residents from the 22 EM residency programs completed the survey. Of the 412 seniors, 183 were PGY2s, 174 were PGY3s, and 55 were PGY4s and 5s (we included responses from residents in combined EM/IM programs). Survey questions and results are summarized in Table 1. Compared to colleagues in previous years, graduating EM residents anticipated broadening their job search. 58% of those considering fellowship after residency stated that their interest in fellowship has increased due to anticipated challenges in the job market (difficulty securing a full-time attending position).

**Conclusions:** The majority of senior residents expressed concern about the current and future EM job market. How and where EM graduates apply for jobs may be impacted as a result. These data may prove valuable to residency programs, institutions, physician groups, and EM-bound medical students.

Question	Response		
		Yes	No
Are you planning on starting to look for a job	231(56%)	181(44%)	
earlier than your colleagues have in previous years?			
Do you anticipate having a more difficult time than your	325(79%)	87(21%)	
colleagues from previous years finding a job when you graduate			
Do you anticipate needing to apply for a job in a different region	262(64%)	150(36%)	
than you were interested in initially?			
Do you anticipate needing to apply for a job at more institutions	357(87%)	55(13%)	
than your colleagues from previous years?			
In your opinion, will the job openings for ED academic jobs be i	365(89%)	47(11%)	
In your opinion, will the job openings for ED non-academic/com	357(87%)	55(13%)	
jobs be impacted?			
Do you anticipate making less money on your initial EM contract	304(74%)	108(26%)	
than what you perceived would have been your salary?			
Are you considering a fellowship after residency?	245(59%)	167(41%)	
If yes to above question, has your interest in a fellowship	Increased	Decreased	No Impact
changed due to the anticipated post-graduation job market?	141(58%)	6(2%)	98(40%)

Data are reported as number of responses (%).

#### 5 Self-Compassion Predicts Intolerance of Uncertainty: A New Construct to Prepare Students for Clinical Uncertainty

Maria Poluch, Dimitrios Papanagnou, Jordan Feingold-Link, Jared Kilpatrick, Deborah Ziring, Nethra Ankam

Learning Objectives: Managing uncertainty represents

a significant source of stress for clinicians and trainees. Selfcompassion is a strategy to help individuals cope with stress. The objective of this study is to determine the relationship between intolerance of uncertainty and self-compassion in medical students.

**Background:** For clinicians, higher scores on the Intolerance of Uncertainty Scale (IUS) have been linked with failure to comply with evidence-based guidelines and higher likelihood of burnout. In contrast, higher self-compassion scores are correlated with decreased stress and burnout. A negative correlation between self-compassion and intolerance of uncertainty has been demonstrated in college students and general population. This relationship has not been examined in medical students and provides a possible curricular aim for addressing stress as they transition to clinical learning environments during clerkships.

**Objectives:** The goal of our study is to determine if there is a correlation between intolerance of uncertainty and self-compassion in medical students.

**Methods:** Third-year medical students (n=273) completed the IUS short version and the Self-Compassion Short Form (SCSF) through an online survey. Data was deidentified and a linear regression analysis was conducted to predict IUS based on SCSF. Pearson correlation was also calculated.

**Results:** Response rate was 95% (259/273). IUS and SCSF scores were treated as continuous variables and analyzed parametrically. Mean scores for IUS and SCSF in medical students did not differ from previously reported means (p=0.14 and p=0.43 respectively). A significant regression equation was found (F(1,256) = 48.372, p<0.0001) with an R2 of 0.159. Pearson correlation was calculated at r = 0.399 (moderate effect size).

**Conclusion:** A significant negative correlation was found between intolerance of uncertainty and self-compassion (p<0.0001). While findings suggest that self-compassion predicts intolerance of uncertainty, future studies should examine its implications on the role of curriculum in preparing learners for clinical uncertainty.



#### The Impact of On Shift Evidence Based Medicine Activity on Patient Care

Jeffrey Brown, Jacob Albers, Ajay Varadhan, Estelle Cervantes, Kashyap Kaul, Shreyas Kudrimoti, Philip Shobba, William A. Spinosi, Joseph B. Zackary, Bryan Kane

**Learning Objectives:** This project seeks to describe how on shift EBM activity by EM residents impacts clinical patient care.

**Background:** Evidence Based Medicine (EBM) skills allow EM providers to obtain and apply new information

while on shift in the ED. The impact of using EBM on shift to patient care has not previously been described.

**Objective:** This project seeks to describe how EBM activity by EM residents impacts clinical patient care.

**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 InnovationsTM. 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. Using qualitative methodology described by MacQueen (CAM 1998), a codebook was created to analyze resident free text to the prompt: "Based on your research, would you have done anything differently". The coding framework is shown in Table One. Results are analyzed descriptively.

**Results:** From June 2013 to May 2020, 11,145 discrete logs were identified. Of these, 571 were excluded (298 incomplete and 273 duplicate), leaving 10,574 logs for analysis. These logs were completed by 137 residents, of which 46 were female (34%). The 10 most utilized log codes (97.5%) are in Table One. The remaining 29 codes were 2.5% of the dataset. A total of 1977 (18.7%) logs affirmed that

Table 1. Qualitative analysis of resident reported application of
EBM to individual patients while on shift.

Code	Meaning	Total (%)	PGY 1 (%)	PGY 2 (%)	PGY 3 (%)	PGY 4 (%)
	The care of this patient was not influenced by what was looked up PLUS the care of future patients may be influenced by what was looked up PLUS the possible change in future care is based on evidence					
	OR	3343	880	877	679	907
231	The care of this patient was not influenced by what was looked up but learned something based on evidence that may be applied in the future	(31.6)	(26.3)	(26.2)	(20.3)	(27.1)
	on examples on evidence that may be applied in the lottere			. ,	. ,	
	A clinical question was asked without reference to a patient and some useful					
	information based on evidence was learned for possible future use					
	The care of this patient may have been influenced by what was looked up PLUS the					
	care of future patients may be influenced by what was looked up PLUS the possible change in present and future care is based on evidence	2263	450	522	512	779
331	OR	(21.4)	(19.9)	(23.1)	(22.6)	(34.4)
	Evidence was found, but there was no indication of whether what was looked up	(21.4)	(19.9)	(25.1)	(22.0)	(34.4)
	influenced the care of this patient or will influence the care of future patients					
	The care of this patient was not influenced by what was looked up PLUS the care of future patients will not be influenced by what was looked up PLUS this decision to not					
	change care was based on evidence	1319	278	311	298	432
221	OR What was looked up confirmed what was already being done PLUS the care of future	(21.4)	(21.1)	(23.6)	(22.6)	(32.8)
	patients will not be influenced by what was looked up PLUS this decision to not					
	change is based on research					
	The care of this patient was not influenced by what was looked up PLUS the care of	1062	348	249	202	263
211	future patients will be influenced by what was looked up PLUS this future change in	(10.0)	(32.8)	(23.4)	(19.0)	(24.8)
	care is based on evidence The care of this patient was influenced by what was looked up PLUS the care of future			. ,	. ,	1 /
131	patients may be influenced by what was looked up PLUS this change in care is based	1047	246	221	230	350
101	on evidence	(10.0)	(23.5)	(21.1)	(22.0)	(33.4)
	The care of this patient may have been influenced by what was looked up PLUS the	443	134	114	82	113
311	care of future patients will be influenced by what was looked up PLUS the change in future care is based on evidence	(4.2)	(30.2)	(25.7)	(18.5)	(25.5)
	Tuture care is based on evidence The care of this patient was influenced by what was looked up PLUS the care of future		. ,			. ,
111	patients will be influenced by what was looked up PLUS this change in care is based	392	97	92	92	111
	on evidence	(3.7)	(24.7)	(23.5)	(23.5)	(28.3)
	The care of the present patient was influenced by outside influences (e.g., an					
431	attending physician made the decision, treatment was deferred to a specialist, the	265	57	67	59	82
431	most efficacious treatment method was not able to be provided) PLUS the care of future patients may be influenced by what was looked up PLUS the possible change in	(2.5)	(21.5)	(25.3)	(22.3)	(30.9)
	future care is based off of evidence					
	The care of this patient was not influenced by what was looked up PLUS the care of					
	future patients will not be influenced by what was looked up PLUS found					
	contradictory evidence OR					
	UK The care of this patient was not influenced by what was looked up PLUS the care of					
	future patients will not be influenced by what was looked up PLUS the evidence found	97	21	22	20	34
227	was outdated	(0.9)	(21.6)	(22.7)	(20.6)	(35.1)
	OR	()	1/	·/	(/	,,
	The care of this patient was not influenced by what was looked up PLUS the care of					
	future patients will not be influenced by what was looked up PLUS the evidence found was insufficient/low quality and was not strong enough to change the decision on					
	how to treat the current or future patients					
411	The care of the present patient was influenced by outside influences (e.g., an					
	attending physician made the decision, treatment was deferred to a specialist, the	80	23	22	12	23
	most efficacious treatment method was not able to be provided) PLUS the care of	(0.8)	(28.8)	(27.5)	(15.0)	(28.8)
	future patients will be influenced by what was looked up PLUS the change in future	(0.0)	(20.0)	(2.12)	(10.0)	(20.0)
	care is based off of evidence The aspects of evidence acquisition and application included scenarios not articulated	262	E 2	69	61	01
Other	in the above categories.	263	53	68	61	81
		(2.5)	(20.2)	(25.9)	(23.2)	(30.8)

evidence researched will change their future practices. Of those, 392 (3.7%) explicitly stated their research influenced care while the patient was in the ED.

**Conclusions:** In this single site cohort, residents were able to successfully link EBM activity to individual patients using the program's procedure recording software. In almost one fifth of this convenience sample, residents described how the activity changed their individual clinical practice of EM, with one in 27 changing patient care in real time. Logging EBM activity appears to generate ACGME outcomes data.

change	in furtu	re patient care.					
Code	Count (% of total logs)	Examples					
211	1062 (10.0)	I'm going to stop prescribing cough medication with codeine since the evidence doesn't seem to support its use and we're in the midst of an opioid epidemic. It's over the counter cough medicine all the way. If we're going to use a placebo, that will be my placebo of choice.	In the future, I will give fentanyl if patient does not get relief with, or cannot have, nitroglycerin.				
311	443 (4.2)	At the start of my Peds EM month, I was unsure of which to use for acute pain. APAP or ibuprofen. Parents would ask me, and I was unsure. Now I feel more confident in what I want to use for pain relief in the peds population. Ibuprofen is now my go- to for pain relief as long as there are no obvious contraindications. It was what I will tell parents to use at home. I am less inclined to give prescriptions for acetaminophen with codeine.	Based on criteria for severe CAP, I will now use steroids as part of my treatment plan or at least have a conversation with admitting team about adding on steroids. This Cochrane study showed great benefits of steroids with little side effects (hyperglycemia). Now the study only speaks about severe CAP. I would like to see study on non-severe CAP or hospital/vent associated pneumonia which we see commonly as well. I would assume it would help just as much for HCAP.				
111	392 (3.7)	We were planning to treat the patient with a fluoroquinolone to cover enteric organisms, but after looking on PEPID we decided to add the recommended IM <u>00</u> before he was discharged. In the future with this demographic of patient I would use the same regimen.	When I was literally pressed for time in order to help save a man's life, I relied Lexicomp™ to give me reliable dosing I TPA for thrombolysis of a massive PE. I would not do anything different in the future - Lexicomp <sup>™</sup> was quick and reliable.				
411	80 (0.8)	It is unacceptable that neurologists in a certified stroke center are going based on outdated guidelines. In etrospect 1 should have challenged them further to push TPA. In the future I will review literature timelier to advocate the best options for patient.	No benefit of anti-virals. I brought up these articles but was unable to conv the attending. I would not use anti-vir in future cases.				
1977 (1	8.7% of tota	I) of EBM logs indicated evidence acquisit	ion that will influence future patient				
care.							

**Table 2.** Resident reported application of EBM leading to achange in furture patient care.

#### 7 The Leaky Pipeline in Emergency Medicine: Understanding Factors Pushing Women Away and Informing Interventions

Nicole Klekowski, Sarah Balgord, Rosemarie Diaz, Alex Farthing, Sylvia Escolero, Koryanne DeCloux, John Burkhardt, Mahshid Abir, Adrianne Haggins, Laura Hopson

**Learning Objectives:** Understand the environmental factors which influence selection of Emergency Medicine as a specialty by women medical students.

**Background:** Women represent 28.3% of EM physicians. There is now gender parity in US medical