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Trust Me, I Know Them: Assessing Interpersonal Bias in Surgery Residency Interviews

Recently, there has been an increased focus on the UME-GME transition process. In this interesting study, the authors analyze how prior knowledge of an applicant may bias the interview process. The University of Ottawa General Surgery residency recruitment process mirrors that followed by many US-based EM residency programs, which consists of a review of application data to generate a "file score," inviting the highest-scoring candidates for an interview, then generating an "interview score" based on a blinded, MMI-format interview. The authors consider 3 years of applicants and divide them into three groups - "home" applicants from their affiliated medical school, "known" applicants from other schools who had rotated with them, and "unknown" applicants. Given the fact that their interviewers are blinded (i.e. do not have access to candidate files or scores), they hypothesize that correlation between candidates' file scores and interview scores would indicate that pre-existing positive or negative sentiments toward an applicant were biasing the rating. Stated another way - if "home" candidates had greater linkage between file and interview scores compared to "unknown" candidates, this may indicate that the interviewers were incorporating some confounding data into the score (presumably, their prior knowledge of the candidate). The results reveal exactly that: Unknown candidates had the weakest correlation ($r=0.15$), known candidates had a stronger correlation ($r=0.36$) and home candidates had the highest ($r=0.55$). The authors conclude that familiarity with a candidate can affect even a blinded, "objective" interview. While the results are not surprising, the analytic framework presented may be very useful for programs to analyze their own recruitment efforts. A sample data set is also provided. These analyses can lead to important insights as programs attempt to improve diversity in their programs, or consider the effect of COVID on away rotations.

-NIkhil Goyal, MD

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Effect of Resident Physicians in a Supervisory Role on Efficiency in the Emergency Department

Kraut AS, Sheehy L, Schnapp BH, Patterson B. West J Emerg Med. 2020 Aug 24;21(5):1266-1269. PMID: 32970584

Patient length of stay (LOS) and emergency department (ED) throughput are important benchmarks in objectively measuring efficient care in the ED. Academic physicians must find the balance between resident education and clinical efficiency. Previous literature on the impact of learners on LOS and ED throughput have yielded mixed results. This study sought to examine the impact of a supervisory resident "pre-attending"(PAT) staffing model on ED throughput and LOS compared to a standard staffing model. In a standard staffing model, a patient is first evaluated by a resident or advanced practice provider (APP) who is directly supervised by an attending physician. With a supervisory PAT model, the APP staffs with a senior resident who is directly supervised by the attending. This model allows graduating residents to supervise patient care in a controlled environment and prepares them to be leaders of physician-APP teams.

Investigators conducted a retrospective observational study from a single university-affiliated community ED. This ED sees 18,000 patients annually. Patients presenting from July 1, 2017 to January 1, 2019, on days where a PAT resident may have been working were included in the study. PAT residents were third-year residents in a three-year residency program. LOS, the primary outcome, was measured as the difference between the time the patient was roomed and the time the patient was dispositioned (discharged, admitted, or transferred). A parametric proportional hazard model was used to analyze the LOS as a time to event outcome. Of the 26702 patient charts reviewed, only 7948 were included in this analysis. Charts were excluded if there was no room time documented, patients had a nonstandard disposition (i.e left against medical advice or left without being seen), or if they were seen on days when a PAT was not working. The adjusted mean LOS for the 4527 PAT encounters was 173 minutes. The adjusted mean LOS for the 3421 non-PAT encounters was 168 minutes. Although small, the PAT staffing model has a statistically significant effect on patient LOS.

While the increase in ED LOS in the PAT group was statistically significant, it is unclear if this increase is clinically significant. Previous studies have found consultation evaluations, imaging, and laboratory tests have a more significant impact on ED LOS. Given that this hospital had virtually no wait time and saw low acuity complaints like ear infections, the 3% increase in the overall LOS in the PAT model can likely be attributed to those factors. Moreover, this study may not be generalizable to larger academic centers or staffing models that have senior residents supervising junior residents. The primary outcome of this study was LOS, but other patient care outcomes may yield different results.

Graduated responsibilities are mandated by the ACGME in all residencies. This PAT model entrusts residents with more roles as they progress through residency. "75% of participating residents felt more prepared to function as an attending because of their PAT experience, while 66% agree they learned things in the PAT role that they would not have otherwise." The downside of the increase in LOS is likely out-weighted by benefit to resident training and education. Although this was a small, single centered study, its results may serve as a stepping stone for programs looking to implement a resident supervisory PAT staffing model.

-Cindy Amilcar, MD (MedEd Fellow)

Learning Through Listening: A Scoping Review of Podcast Use in Medical Education

Kelly JM, Perseghin A, Dow AW, Trivedi SP, Rodman A, Berk J.Acad Med. 2022 Jul 1;97(7):1079-1085. PMID: 34935729

Medical education podcasts are an evolving form of digital education. In this study the authors describe the current application, supporting evidence and impact of podcasts in medical education. In June 2020, the authors conducted a systematic PubMed and EMBASE search for literature on medical podcasts. They defined these as *"podcasts whose primary focus is learning for physicians and physicians-in-training"*. Sixty-two unique peer-reviewed published articles met inclusion criteria. They used Kirkpatrick's levels to evaluate the effect of podcasting as curricula.

They found the following: the acceptability of podcasts has increased over time. In emergency medicine, they are the most used form of asynchronous learning. Residents have more readily adopted podcasts as a form of education than practicing physicians. They choose podcast topics relevant to their recent clinical encounters, and content matched their level and specialty. The ideal length of a podcast is unknown. Barriers to podcast use are - inconsistent production schedules, pay-for-service model, external distractions, lack of time, length, difficulty with navigation, and concerns about credibility. Learners valued flexibility, autonomy, and convenience. Podcasts are non-inferior to traditional educational resources for knowledge retention. The use of interpolated questions to increase active learning, showed significantly higher retention several weeks after. Podcasts induced change in practice, with highest reported change occurring among emergency medicine physicians. None of the studies reported any evidence of system, care delivery, or patient outcomes attributed to podcast interventions.

Based on current evidence, podcasts are non-inferior to traditional educational resources, and may be an important tool in implementing most current evidence-based practices in emergency medicine´s formal curriculum. Despite lack of uniformly accepted optimal use, we should strive to implement credible well-structured podcasts at least as an adjunct to traditional learning in residency, as they offer flexibility and autonomy to the learner without compromising the knowledge retention.

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Managing Difficult Conversations: An Essential Communication Skill for All Professionals and Leaders

Prober CG, Grousbeck HI, Meehan WF 3rd.Acad Med. 2022 Jul 1;97(7):973-976.PMID: 35767404

Difficult conversations and encounters transcend all professions and work environments. Learning how to manage these difficult conversations is an acquired skill that is important to develop for all professionals and future leaders. Difficult conversations are often perceived as confrontational and can be anxiety provoking. They are often avoided due to uncomfortable feelings surrounding them and can potentially lead to escalating negative consequences when avoided. Regardless of the profession,

profession, poor communication during these encounters can worsen issues being addressed. In healthcare, these conversations are frequently met. To increase the stakes of an already difficult interaction, these conversations usually involve conveying the magnitude of serious medical problems, including life altering information, to patients and their loved ones.

This course, Managing Difficult Conversations, developed 15 years ago at Stanford University, aimed to facilitate the practice of managing difficult conversations through role play in a safe environment. Specifically, this was a course for graduate level students that focused on improving interactions during a difficult conversation through case studies, role playing, and feedback from guest experts. During these cases students practice handling difficult conversations in a safe, supportive, and low stakes environment and received real time feedback from colleagues and guest experts who were intimately familiar with the simulated case. The course also discusses and outlines the stages of difficult conversations and certain guiding principles that one can utilize during these encounters. The 7 of 12 most guiding principles that had the greatest resonance with the students overs the years include: be nonjudgmental, do not mislead, do not mistake vagueness with compassion, offer hope and comfort, be calm and calming, be an active listener, pauses are your friend.

Feedback from the students enrolled in the course emphasized that the single most impactful part of the class was actively role playing in these simulated scenarios. Lack of experience during these situations can lead to increased anxiety and escalating negative consequences for all parties involved. Just like any difficult situation in medicine, performing HPIs, life-saving medical procedures, breaking bad news to families, practice makes perfect. Simulating healthcare professionals managing difficult conversations in a safe and constructive environment can lead to improved skills when leading these conversations. Through continued practice, the goal is to improve the ability of healthcare professionals to convey necessary information with empathy, effectiveness, clarity, and professionalism when managing difficult conversations.

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Quarterly **M**edical **E**ducation **UP**date

Gender differences in emergency medicine standardized letters of evaluation

The existence of gender bias in the narrative of Letters of Recommendation (LOR) is recognized across multiple medical specialties. Emergency Medicine (EM) programs place great emphasis on the Standardized Letter of Evaluation (SLOE); hence the objective of this study was to evaluate the influence of gender on the 7 Qualifications for EM (7QEM) questions, Global Assessment (GA), and anticipated rank list (RL) position. The authors did a cross-sectional study of 4952 SLOEs (2103 unique applicants, 61.65 male vs 38.4% female as self-identified) that met inclusion criteria from applicants to 3 EM programs that represented ~ 2/3 of all EM applicants from the 2019-2020 interview season. The 7QEM questions, GA, and anticipated RL position were all assigned point values and analyzed for variability as related to gender. The effect of gender on the 7QEM items and any association to the GA and anticipated RL position was also evaluated. Overall, the 7QEM, GA, and anticipated RL scores were higher for female applicants. The "ability to communicate a caring nature to patients" was a significant predictor of the GA for female applicants but not for males. When looking at the relationship between the 7QEM scores and anticipated RL position, "commitment to EM" was not a significant predictor of placement for males but was for females. In their discussion, the authors speculated as to the reasons for these differences but caution that their study design was able to find association but not causation. Generally, the authors did find that gender influenced multiple areas of the SLOE and suggest that: 1) Program leadership be aware of this when evaluating SLOEs, 2) additional studies be done to assess the underlying reasons for these differences, and 3) further studies examine how other factors such as race/ethnicity or type of degree (MD vs DO) influence SLOE ratings.

-Amy Stubbs, MD

Quantifying For-Profit Outcomes in GME: A Multispecialty Analysis of Board Certifying Examination Pass Rates in For-Profit Affiliated Residency Programs

Over the past 20, years there has been a proliferation of for-profit hospitals in the United States and a huge increase in the proprotion of for-profit affiliated residency programs. The proportion has increased 400% in internal medicine (IM), 334% in general surgery (GS), and 23% in pediatrics. There is a body of literature examining the differences in for-profit vs. non-profit institutions in patient oucomes, spending and services. There is a lack of understanding, however, as to how the different systems may impact GME. The authors of this study used board examination pass rates as a measure to assess the education quality at GME programs. They chose this outcome because previous studies have used ABMS pass rates as a measure to quanitify educational outcomes: these previous studies have analyzed factors such as community vs. academic and program location to assess board pass rates. Using program level data provided by member boards (of note, ABEM declined to share EM data), they found that bivariate regression demonstrated for-profit affiliation is associated with lower board examination pass rates among combined IM, GS, and pediatrics residency programs. When controlling for the number of examinees in the 3-year testing period, year of accreditation, program type, and program location using multiple regression, they found that for-profit affiliation remained associated with a lower board pass rate only in pediatrics (p=0.006). The authors do note that there is association, not causation. For example, it is possible the pediatrics programs at for-profit affiliated programs attracted residents who do not perform as well on standardized tests.

While this study has multiple limitations, it starts an evidence-based conversation as to the effect of for-profit affiliations in GME.

-Samuel D. Luber, MD, MPH