



ACGME

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Graduate Medical Education

Meaning *in* Medicine:

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CONNECTIONS

2022 ACGME
ANNUAL EDUCATIONAL
CONFERENCE
VIRTUAL EXPERIENCE

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Abstracts

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2022 ACGME Annual Educational Conference

Marvin R. Dunn Poster Hall



Marvin R. Dunn, MD

The ACGME lost a beloved colleague and friend with the death of Dr. Marvin R. Dunn on July 30, 2003. Dr. Dunn, 71, was the ACGME's director of Review Committee activities, as well as a nationally-renowned figure in the medical community.

In 1998, the ACGME was fortunate to have Dr. Dunn join its staff. He brought vast experience, deep wisdom, an unflinching sense of humor and the capacity to see goodness in each of us. His concern for residents was unflinching. He was the country's best resident advocate. He is greatly missed.

As the ACGME developed its duty hours standards and moved to a competency-based method of evaluating residents, Dr. Dunn always kept the impact on the resident at the forefront.

He had a deep respect for the role of the Review Committees in strengthening the formation of residents, and kept the Review Committees and the ACGME on task to improve the quality of life for residents.

Colleagues and friends across the country contacted the ACGME with their own memories of Dr. Dunn. In their letters of condolence, he was remembered over and over again with phrases such as "a true advocate for excellence in medical education," "the most wonderful combination of wisdom and humor," "wise counsel and gentle style," and "truly one of the good people."

"During his distinguished career, Dr. Dunn, a native of Lubbock, Texas, and a board-certified pathologist, held a series of prominent positions. Before joining the ACGME, he served as the AMA's director of graduate medical education. Earlier in his career he served as vice president for health sciences and dean of the University of South Florida College of Medicine, dean of the University of Texas Medical School at San Antonio, acting dean and associate dean for academic affairs at the University of California at San Diego School of Medicine, and deputy director of the National Institutes of Health Bureau of Health Manpower.

Dr. Dunn was intimately involved in the ACGME's poster sessions from their inception, as both a judge and councilor. He took great delight in the innovative presentations that encompassed all areas of graduate medical education, and enthusiastically watched the development of best practices related to the competencies and duty hours requirements. The ACGME is honored to name this poster hall in his memory.

2022 ACGME Annual Educational Conference Poster Hall

Abstracts displayed in the 2022 ACGME Annual Educational Conference Poster Hall were selected from the 2022 Call for Abstracts. The abstracts represent research and innovations within graduate medical education.

Research Abstracts include completed studies or investigations, with measurable results, that offer new conclusions that contribute to GME research and practice.

Innovation Abstracts include completed programs, projects, or strategies, with measurable results, that share best practices and practical insights with the GME community.

POSTER # 34

Q and A PDF 

WATCH PRESENTATION

Opt-Out Versus Opt-In Therapy Sessions for Residents Increases Resident Use of Ongoing Therapy by 400%



POSTER # 35

Q and A PDF 

Can We Reduce Opioids Being Prescribed in the ED by Implementing an Alternatives to Opioid Program?



POSTER # 36

Q and A PDF 

USMLE Step 1 and Step 2 CK as Indicators of Resident Performance: A Systematic Review



**Content displayed here is as presented in the authors' submission to the 2022 Annual Educational Conference Call for Abstracts. Poster content of the abstract in this document may vary from the poster displayed in the virtual Poster Hall.*

2022 ACGME Annual Educational Conference

Poster # 1: Development and Validation of a Novel Instrument to Measure the Community Well-being of Residency Programs

Author(s): David Vermette, MD, MBA; Hayley Israel, MD; Juliann Reardon, MD; Shirley Zhen, MPH, MSN, PMHNP-BC; Donna Windish, MD, MPH; Marney White, PhD, MS

Institution(s): Yale School of Medicine; Yale School of Public Health

Abstract Type: Research-focused

Background

Physician burnout is an evolving healthcare crisis in the United States. Residents have higher rates of burnout than the general population, and they report worsening burnout as they progress through residency.[1-3] Community well-being impacts individuals' ability to "flourish and fulfill their potential,"[4] and resident physician well-being is likely influenced by the community in which they are immersed. Understanding what influences a residency program's community well-being may help identify areas for intervention. Measures for the construct of community well-being have been developed.[5] However, a measure has yet to be adapted to the residency program experience.

Objectives

To develop and validate a questionnaire to measure a residency program's community well-being with the goal to provide residency programs a means by which they can assess, longitudinally follow, and improve the well-being of their community, thereby improving the well-being of their residents.

Methods

An initial questionnaire to measure residency program community well-being (RCWB) was developed from literature review.[5-14] Items were pilot tested, and the questionnaire was reviewed by experts in the fields of residency education, survey design, and sociology. The finalized questionnaire was a 47-item instrument with higher scores indicating greater community well-being. US medical residents were recruited between March and July of 2021 through convenience and snowball sampling using social media, email listservs, and emails to residency program leaders. Data were analyzed with descriptive statistics, and exploratory factor analysis was performed with principal component analysis with varimax rotation to reduce the items and define subscales. Three previously validated and related scales were administered with the RCWB measure to examine criterion validity (the Professional Fulfillment Index,[15] Brief Inventory of Thriving,[16] and a single item measure of burnout).[17]

Results/Outcomes/Improvements

Of the 366 residents who opened the survey, 219 completed it (completion rate 60%). Most respondents were female (61%), 26-30 years of age (60%), and identified as white (68%). Five subscales emerged with 24 total items: Program Leadership, Structures, and Practices; Resident Interpersonal Relationships; Fairness of Assignments; Workload; Resident Mistreatment. Interitem reliability coefficients (Cronbach's alpha) for each subscale were 0.95, 0.92, 0.71, 0.62, and 0.82 respectively. The RCWB score positively correlated with professional fulfillment ($r = .57, p < .001$) and thriving ($r = .49, p < .001$) and inversely correlated with burnout ($r = -.46, p < .001$). The total RCWB scale score significantly differed based on number of hours worked in the prior week [<60 hours vs >60 hours: 133.5 (SD=17.0) vs 122.3 (SD=22.6), $p <$

.001], training year [PGY1 vs PGY2 or greater: 134.1 (SD=17.2) vs 126.2 (SD=21.3), $p < .05$], and specialty [medical vs surgical: 130.9 (SD=18.7) vs 119.2 (SD=24.7), $p < .05$].

Significance/Implications/Relevance

The RCWB measure demonstrates high internal consistency, as well as content and criterion validity. The RCWB components show that residency community well-being is primarily influenced by program leadership, interpersonal relationships, and structural factors. These analyses suggest that the RCWB is a valuable tool for measuring the subjective community well-being of residency programs. Using this scale within residency programs could identify areas for improvement and impact the well-being of the residency community and its individual residents. Further research is needed to establish RCWB normative values, to determine what factors contribute to higher or lower scores on the RCWB instrument, and to understand how organizational interventions can best improve residency program community well-being.

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2022 ACGME Annual Educational Conference

Poster # 2: Tuesdays Are Great for Teaching Tips: A Spaced Education Strategy for Faculty Development

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Institution(s): University of Florida COM- Jacksonville

Abstract Type: Innovation-focused

Background

Annual faculty development programs structured to improve knowledge, skills, and behaviors of faculty as educators is required by the Accreditation Council for Graduate Medical Education for teaching faculty. Difficulty in meeting this requirement is consistently reported in the literature due to competing faculty workload responsibilities. The COVID-19 pandemic has increased the challenge for faculty to attend sessions and while the use of virtual sessions has skyrocketed, so too has “Zoom fatigue.” Spaced education (SE) suggests that when information is presented and then repeated in small intervals (spacing effect) versus a bolus of information, knowledge, skills, and behaviors are more easily retained and available for use.

Objectives

We sought to develop an innovative faculty development program (Tuesday’s Teaching Tips [TTT]) disseminated via email utilizing spaced education as a strategy to reimagine delivering course content, first with evaluation and feedback as our topic and then a second program focusing on teaching under time constraints.

Methods

Building off of Pernar et al, who utilized SE with surgical interns to improve teaching skills with medical students by emailing weekly statements for a year, we developed a 14-week Evaluation and Feedback course and an 11-week Tight on Time course for faculty teaching residents and fellows across all specialties. Each course consisted of a foundational 15 minute micro-lecture (ML); tailored emailed SE statements using visuospatial triggers to assist with encoding and connection back to the MLs; requirement to “accept” emails for attendance; and a course evaluation with reflective statement. Faculty received CME and a certificate for course completion. Emailed evaluation and feedback statements were adapted from Pernar et al and the literature; Tight on Time statements were created utilizing the literature. Two physician experts in clinical teaching created the statements, which were reviewed by a doctoral educator who designed the visuospatial cues. Both programs were held in 2020.

Results/Outcomes/Improvements

Combining courses, 104 faculty across 16 specialties signed-up; 78 completed the first week of watching the ML; 38 completed the course in which they enrolled. Averaging evaluations, 99% rated the program good to excellent, 99% felt information gained would enhance patient care or medical education, 99% had moderate (21%) to high confidence (78%) in implementing changes in their teaching, nearly a third felt COVID-19 affected their ability to fully participate, and 100% reported wanting more TTT courses. Overwhelming majority of comments were positive: “was wonderful” “great format” “I appreciate that the tips are brief, and specific, making them easy to review and incorporate” “prompted me each week to think specifically about giving feedback...I was able to implement frequent ‘nuggets’...” “...quick pearls reinforced

teaching” “wonderful tool in the midst of COVID” “...one particular skill was the focus each week...gave me time to practice that skill and incorporate the next.”

Significance/Implications/Relevance

Faculty were very receptive to this teaching strategy, as it was designed to be easily accessible, eliminated the need to “go to a training,” was time efficient, and used simple strategies to practice in the clinical learning environment. Further, it utilized multiple learning approaches: spaced education, phonologic and visuospatial cues. Future directions should include evaluating the behavioral effects on faculty skills and the impact on learners. Tuesday’s Teaching Tips has broad applicability across all specialties and institutions to assist programs and faculty in meeting ACGME requirements for faculty development to improve teaching.

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Poster # 3: Tackling Impostor Syndrome Individually and Institutionally: A Longitudinal Impostor Syndrome Curriculum for Pediatric Residents

Author(s): Chloë Nunneley, MD; Daniel Zheng, MD, MHS; Ariel Winn, MD; Catherine Michelson, MD, MMSc

Institution(s): Boston Children's Hospital; Harvard Medical School; Children's Hospital of Philadelphia; Boston Medical Center; Boston University School of Medicine

Abstract Type: Innovation-focused

Background

Medical professionals may be particularly susceptible to “impostor syndrome” (IS), the inability to internalize successes that leads individuals to believe they are less qualified and intelligent than others know them to be.^{1–4} IS can manifest as chronic self-doubt, low self-esteem, and fear of both failure and success.¹ Although IS is associated with poor psychological (anxiety, depression, emotional exhaustion) and professional (job satisfaction, career advancement) outcomes, few studies have directly examined IS in medical trainees and even fewer have evaluated potential interventions.^{2,5–7} Explicitly addressing IS among trainees and faculty early in training is also critical to efforts around workforce diversity and representation because we know it has the potential to impact career striving and advancement to leadership positions.^{2,6}

Objectives

In a needs assessment sent to incoming interns in our large pediatric residency program from 2018-2020, greater than 88% endorsed feelings of impostor syndrome. Given this prevalence and as a secondary prevention strategy, we aimed to design a curriculum that would increase residents' awareness and understanding of IS and decrease the distress and anxiety associated with these common yet maladaptive thoughts. Further, we aimed to create a longitudinal curriculum that would allow for residents to move beyond a basic awareness of IS and toward a more nuanced understanding, including how IS may impact professional advancement and influence their workforce as a whole. We aimed to equip residents with actionable steps to combat IS individually, but also consider how IS is more broadly generated and perpetuated institutionally. This included incorporating how IS may interact with structural and societal biases (e.g. racism, sexism) and lead to under-representation in leadership.

Methods

As transitions are known to amplify IS, 3 hour-long sessions were designed to target the transition from medical student to physician (new interns), intern to supervisor (new juniors), and resident to fellow/attending (new seniors). Residents, chief residents, and program leaders outlined the curriculum's specific objectives, which informed the educational strategies chosen. These were further informed by self-determination theory and therapeutic strategies recommended to address IS, including normalization of impostor feelings and reframing of maladaptive thought processes.⁵

Each session followed a similar format, including a pre-session survey, evidence-based didactic, and spaces for sharing common experiences; the second and third sessions also incorporated reflective writing exercises. Sessions concluded with the recitation of a verbal contract, first in the form of group affirmations followed by statements of self-actualization. Sessions were evaluated via an anonymous survey.

Results/Outcomes/Improvements

The first session was piloted in 2018 and assessed for acceptability and value prior to curricular expansion. From 2018-2020, 113/150 interns (75%) completed a post-session survey and rated the session as highly useful, with a mean of 9.3 (SD 1.3) on a scale of 1 (not useful) to 10 (invaluable). 95% (107/113) of respondents “definitely” (66%) or “most likely” (28%) wanted IS discussed in a longitudinal curriculum. In 2019 and 2020, objectives were assessed: a majority reported improvement in their understanding of (90% “much better” or “better”) and feelings associated with IS (89% “better/relieved”).

Junior and senior sessions were introduced in 2021; 23/40 (58%) and 31/40 (78%) residents completed surveys, respectively. Although sessions were rated less useful (means 7.9±2.6 and 6.7±1.4) and impactful on IS feelings (65% and 67% positive), the majority of juniors (79%) and seniors (80%) felt the longitudinal curriculum was “definitely” or “most likely” valuable to their training.

Significance/Implications/Relevance

A novel longitudinal curriculum introduced pediatric trainees to IS, highlighted its commonality, and provided evidence of its impacts and action steps to mitigate its effects on an individual and institutional level. The first session was particularly well received and found to be valuable to participants, with a large majority reporting positive changes in their understanding of and feelings associated with IS. The subsequent sessions were perceived as less valuable to respondents, though a majority still felt better/relieved about their IS feelings as a result of the sessions. This decline may be due to residents’ existing awareness of IS from the first session, but also may be due to later sessions focusing more on the broader (rather than individual) impact of IS. However, this content is lacking from existing residency curricula and important when considering the implications of IS on the diversity of our workforce.

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Poster # 4: Learning from Mistakes: Pediatric Residents' Attitudes Toward and Responses to Peer Errors

Author(s): Chloë Nunneley, MD; Beth Harper, MD; Elizabeth Pingree, MD; Carolyn Marcus, MD

Institution(s): Boston Children's Hospital; Harvard Medical School

Abstract Type: Research-focused

Background

Medical errors are common and can significantly impact both the patient and medical professionals involved. While the healthcare system has appropriately shifted from blaming individuals to focusing on the systems that allow errors to occur, physicians often still feel personally responsible and can experience significant distress, guilt, self-doubt, and frustration when their actions contribute to an error.^{1,2} Studies have shown that physicians want to be informed about their errors and receive feedback on them in order to learn from these events and garner the support of their colleagues.^{3,4} Further, feedback can result in increased error reporting as well as individual behavior change.^{5,6} However, errors may be intercepted and corrected by other medical professionals, improving patient care but leaving a physician unaware of their involvement and vulnerable to repeating the same mistake.

Objectives

A survey of 400 attending physicians revealed that the majority wanted their peers to disclose errors to them so that they would not repeat the same mistake. However, they expected their peers to take this approach more than they would themselves.⁷ It is unknown if similar behaviors and beliefs are held by resident trainees. Therefore, we aimed to assess pediatric residents' attitudes toward and responses to errors made by their peers and determine if these are related to characteristics of the error (including severity and classification as a 'near miss'), individual characteristics (gender, year of training), or the program's culture (i.e., the perceived psychological safety of resident teams). We also sought to identify the barriers and facilitators to notifying peers of errors.

Methods

We developed an anonymous survey that included hypothetical scenarios in which a resident makes a cognitive error. Respondents were asked to rate the importance of their peer being aware of the error on a 5-point Likert scale, as well as identify the actions they would take if they discovered the error. Respondents answered the same questions imagining they had made the error themselves. Errors associated with no (near-miss), minor, or moderate harm to patients were included. To determine if responses vary according to individual or institutional factors, select demographic questions (gender and post-graduate year [PGY]) and a validated psychological safety scale were included. After piloting and cognitive interviews with residents and content experts, the survey was distributed via Qualtrics software to four residency training programs of varying size and geographic location.

Results/Outcomes/Improvements

The survey was completed by 244/350 residents (70%) from 4 pediatric residency programs. Overall, respondents reported that it was very important for residents to be notified of their errors (mean 4.4/5, SD 0.78), which increased with error severity ($r=0.259$, $p<0.001$) and when errors were not near misses ($p<0.001$). Residents reported increased efforts to notify peers as error severity increased ($r=0.224$, $p<0.001$) and if errors were not near misses ($p<0.001$). For all error types, respondents rated the importance of notification higher when they committed an error and wanted their peers to take greater effort to notify them. Males tended to notify peers more than females ($p=0.004$); responses did not differ by PGY or by psychological safety ratings.

Facilitators of notification included perceiving an error as a learning opportunity and a resident's own desire to be notified. Barriers included being unsure an error occurred, resident unavailability, and an error being a near miss.

Significance/Implications/Relevance

The vast majority of pediatric residents believe it is very important that residents are made aware of errors that they have made, particularly if the error reaches a patient or if the error is severe. Residents felt it was even more important to be notified if they made the error and expected their peers to put in more effort to notify them than they would themselves. Near misses were perceived as less important for notification and associated with a lower likelihood of notification. This is problematic, as near misses comprise the majority of errors and are the most psychologically safe mistakes from which residents can learn. Residency programs should consider utilizing near misses as teaching opportunities and normalizing the discussion of these lower-stakes errors to facilitate individual and system learning. Further, as resident unavailability was an important barrier to notification, avenues to discuss errors outside of a resident's typical rotation should be explored.

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Poster # 5: The Department of Veterans Affairs and Academic Programs in Graduate Medical Education: Partnerships Worth Keeping

Author(s): Michael Kashner, PhD, JD, MPH; Paul Greenberg, MD, MPH; Marjorie Bowman, MD, MPA

Institution(s): Department of Veterans Affairs

Abstract Type: Research-focused

Background

Since 1946, the Department of Veterans Affairs includes education of health professionals as one of its three statutory missions, along with research and clinical care. VA's commitment to GME culminated in 2000 when 33% of all residents (and fellows) in accredited GME programs rotated through a VA medical center. Since 2000, VA expanded that commitment and maintained its 33% share despite substantial growth in the number of accredited GME positions. By 2020, over 47,500 residents, plus 26,500 medical students, rotated each year through a VA medical center (1). However, the literature reports concerns over federal support for GME (2-4) and raises questions if veterans are benefiting from VA's commitment to GME, and if residents and fellows are acquiring greater clinical skills and more medical knowledge after their VA clinical experience.

Objectives

Our purpose is to determine if the value of care that physician residents (and fellows) engaged in supervised outpatient care contributed to clinical workload that was sufficient to cover the cost of their salary, fringe benefits, and supervision. We also assess whether these same residents saw an increase to their productivity during the time they were engaged in VA patient care. Increasing productivity is viewed as a necessary condition for residents to acquire knowledge and gain skills towards becoming independent clinicians.

Methods

We applied generalized linear mixed models to VA's encounter-level electronic health records from 2005 through 2018. Total Relative Value Units produced by production unit was regressed on the number of residents, physicians by specialty, physician assistants, nurse practitioners, nurses, and other professions assigned to that production unit. Production units were defined by service date, facility, and clinics aggregated into one of nine specialty groups. Resident productivity equals the contribution to workload residents make per day net of supervision as a percent of the contribution VA staff physicians with no supervision responsibilities make to clinical care during the same workday. Resident efficiency was the net contribution to workload a dollar invested in resident salary and fringe benefits would yield calculated as the proportion of workload that same dollar would yield had it been invested in staff physician salaries and fringe benefits.

Results/Outcomes/Improvements

Resident productivity compared to attending physician productivity ranged from 21% (Emergency Medicine) to 94% (Specialty Care), with primary care at 57% and psychiatry at 61%. Resident annual salary and fringe benefits as a percent of physician staff earnings range from 25% (specialty care) to 34% (primary care). Resident efficiency ranged from 0.6 (Emergency Medicine) to 3.8 (Specialty Care), with primary care residents computed at 1.7 and

psychiatry residents at 1.9. High efficiency for specialty care relative to primary care was the result of their higher productivity and lower salary differential.

Resident productivity increased during the year, with percentage increases of 3%/yr (emergency medicine) to 40%/yr (specialty care), with primary care at 13%/yr and psychiatry at 3%/yr.

Significance/Implications/Relevance

These data suggest both VA and their academic affiliate education institutions sponsoring GME programs have benefited from this long-standing partnership. On the other hand, its higher efficiency ratings from both productivity and salary differentials mean hospitals will more likely favor the profitable specialty care fellow than the less efficient primary care and psychiatry resident.

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Poster # 6: The impact of electronic handoff tool on sign-out practices in an internal medicine residency program

Author(s): Fahad Alkhalfan, MD; Yuting Huang, MD, PhD; Harim Kim, MD; Yazan Alzedaneen, MD; Zarah Haleem, MD; Meng Zhou, MD, PhD; Aseem Sood, MD; Robert Chow, MD, MBA, MACP

Institution(s): University of Maryland Medical Center Midtown Hospital; Sinai Hospital

Abstract Type: Innovation-focused

Background

With the implementation of common duty hour requirements by the Accreditation Council of Graduate Medical Education (ACGME), residents have experienced shorter work shifts and more frequent shift changes. With regular shift changes, the potential exists for miscommunication between healthcare providers, resulting in suboptimal care and harm to patients. The lack of a standardized handoff regimen has been a concern in a community-based internal medicine residency program and prompted the development of a new handoff tool.

Objectives

The aim of this study is to evaluate the impact of a new handoff tool by objectively measuring handoff quality and assessing residents' perceptions of their handoff experiences. The new handoff tool consists of three smart phrases that correlate with the main components of a hand-off (Summary, Action List and Situational Awareness), resulting in a template for each section of the hand-off. The tool, which guides the resident through the different components of a handoff in a structured format, also auto-populates key patient demographic features, including age, sex, code status, and allergies.

Methods

Internal medicine residents working on an inpatient medical ward service completed a clinical evaluation exercise (CEX) questionnaire and an anonymous survey on handoff quality and experiences prior to implementation of the new handoff tool, two weeks after implementation, and 6 weeks after implementation. The CEX questionnaire, an assessment of handoff quality, was completed for each hand-off. A higher CEX score correlates with a better handoff. Finally, the average duration of handoff was compared between baseline and six weeks.

Results/Outcomes/Improvements

When compared to baseline, there was a statistically significant increase in CEX score at 6 weeks (Baseline: 5.3 ± 1.1 ; 6 weeks: 6.9 ± 0.7 ; $p=0.0018$). Although handoffs took longer to carry out after implementing the tool (an increase from 18 ± 7.4 minutes at baseline to 22.8 ± 8.2 minutes at 6 weeks, $p > 0.05$), the percentage of residents who felt that they spent the right amount of time signing out increased from 52% to 75%. Additionally, the residents reported a subjective improvement in the handoff process. For example, the proportion of residents who reported that they were almost never contacted by the on-call team for additional information after they had signed out increased from 13% at baseline to 75% at 6 weeks.

Significance/Implications/Relevance

Our study demonstrated that standardizing the format of handoff can improve its efficiency and accuracy. The improvement in handoff quality is likely related to the implementation of a structured template tool that minimizes omission and prioritizes important clinical information. As a result, we were able to offer residents a standardized method for signing out that provides a uniform structure in which the necessary medical information can be communicated in an efficient and predictable manner. The tool was easily incorporated into our electronic health record system (Epic) and can be further customized, depending on the clinical setting. However, further studies are warranted to understand whether implementing a new hand-off tool translates to an improvement in clinical outcomes.

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Poster # 7: Establishing Longitudinal Formative Feedback for Family Medicine Residents

Author(s): Velyn Wu, MD; Sarah Slysofski, BAS; Thomas Chamberlain, MD; Bernie Amaro; Jacob Schreiber, MA

Institution(s): University of Florida College of Medicine; University of Southern California Keck School of Medicine

Abstract Type: Research-focused

Background

Workplace assessments provide residents with information to help them improve their performance, steer learning towards desired outcomes(1) and support more consistent education outcomes(2). Systems used to provide feedback to residents should reinforce an improvement model of learning(2). Areas needing attention in workplace-based assessment include development of strategies to ensure that they are successful and sustainable and for implementing formative assessment in the workplace(1). The use of frequent, low stakes formative feedback that can be used to create summative feedback should be emphasized(2). Interventions that address resident, faculty and institutional obstacles(3-5) to implementing an effective feedback system include targeting their beliefs by addressing advantages and disadvantages of the system, setting clear expectations prior to implementation(6) and avoiding a system that appears oriented towards detecting and punishing incompetent individuals(2).

Objectives

To conduct resident and faculty development on giving, receiving, and using feedback and implement a formative feedback process to improve feedback provided to family medicine residents regarding their work in caring for patients in the continuity clinic setting. Primary outcomes include descriptions of the barriers that exist to requesting and/or completing feedback forms and what system factors result in increased form completion. Secondary outcomes examined the effect of providing formative feedback on residents' perceptions and/or use of feedback and whether residents responded better to feedback for improvement when given in a formative framework.

Methods

A mixed methods longitudinal study was conducted at a university-based urban family medicine residency program at the primary ambulatory practice site. Participants included 27 residents and 12 faculty.

During the academic year 2020-2021, participants attended three development sessions on feedback and a cloud-based formative feedback process using New Innovations as the management system was implemented. Participants completed surveys regarding the first two development sessions. Initially, residents were responsible for requesting feedback from supervising faculty and a field note assessment form was used. This process was revised to pre-determined resident-faculty pairings and a two-item formative assessment form based on focus group opinions on the initial feedback process halfway through the academic year. The focus group data was also used to inform a final development session for the participants. The revised process was evaluated with pre- and post-implementation surveys.

Results/Outcomes/Improvements

Overall, participants agreed that development sessions increased their knowledge about feedback and their comfort with the feedback process. For the initial feedback process, 61% of residents requested feedback at least once and faculty completed 86.3% of the requests. For the revised feedback process, faculty completed 84.6% of the 169 resident-faculty feedback pairings. After the revised feedback process, participants agreed that feedback was given timely, verbally and highlighted areas of good practice and suggested improvement.

Focus groups revealed unanimous support for the use of the cloud-based management system and a shared perception that residents requested feedback based on resident perceptions of faculty. Residents wanted more verbal feedback, believed that feedback was most important for interns and did not want the program to mandate them to request feedback. Faculty wanted to give timely feedback and focus on improvement.

Significance/Implications/Relevance

This study showed that our residents value feedback but have internal barriers preventing them from seeking it; perceptions of faculty and a preference to receive affirmative feedback. They preferred verbal, timely and specific feedback to incorporate into subsequent patient encounters and to maintain autonomy and not be required to ask for feedback. Faculty are motivated to give timely, relevant, and specific feedback for growth, regardless of the process in place to give it. For faculty, the main barrier is providing feedback in a timely manner. Resident and faculty development, the management system and the feedback form used were not factors affecting the implementation of the feedback process.

Other programs that are planning to implement an effective longitudinal, formative feedback process could modify their processes to fit the level of readiness of residents to seek, receive and use feedback with the goal to move the culture towards developing motivated, life-long learners.

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Poster # 8: We Can't Teach What We Don't Know: Empowering IM Residents with a Lifestyle Curriculum to Benefit Both Physicians and Patients

Author(s): Delaram Moazami, MD, FACP; Sofia Chaudhry, MD; Patrick De Deyne, MPT, MSc, PhD; Daniel Goldsmith, MD, FACP

Institution(s): Capital Health System

Abstract Type: Innovation-focused

Background

The leading causes of morbidity and mortality are currently chronic diseases, caused primarily by poor lifestyle choices. Despite this, basic lifestyle improvement techniques are not optimized to the extent they could in many practices; one reason for this being lack of training on how to provide it. To address this, we designed a Lifestyle Medicine curriculum delivered through didactic sessions in which all residents are educated about the evidence-based recommendations for a healthy lifestyle and guided on how to apply those recommendations in the setting of an underserved population. Residents apply this knowledge by scheduling patients with the most common chronic diseases in our community, diabetes, HTN, and obesity for a healthy lifestyle counseling encounter.

Objectives

1. Empowering residents with practical tools that provide healthy lifestyle advice to patients
2. Implementing Lifestyle Medicine to underserved communities
3. Increasing the wellbeing and healthy lifestyle habits in Residents.

Methods

Residents facilitated discussions with EMR templates designed to guide taking a thorough nutrition and exercise history. They assessed patient's readiness for behavioral changes and discussed goals of wellbeing, and used the colored zones system and plate illustrations to demonstrate foods' healthfulness and optimal portion sizes. Patients learned to read nutrition labels, count calories, eat healthy on a budget, practice intermittent fasting and were encouraged to cook at home by sharing recipes. Most innovatively, they prescribed exercise to emphasize the significance of physical activity on health. To quantify the effects of lifestyle changes, patients were gifted equipment relevant to their diagnoses including glucometers, test strips, BP monitors, and scales, funded through a grant. Because this project occurred during the COVID pandemic, self-monitoring at home was particularly essential. Patients were scheduled for monthly appointments to discuss their achievements.

Results/Outcomes/Improvements

The questionnaire results from our residents showed that they identify patients in need of lifestyle modification (57% always, 35% usually). Additionally, most residents felt confident counseling their patients (52% always, 38% usually) and 97% felt that primary care physicians should do the counselling. After completing the Lifestyle Medicine program, more than 60% of residents kept the healthy plate illustration in mind when prepping their own meals and 63% said that they are mindful of the color zones, 30% increased their amount of exercise, 53% paid more attention to food labels, 66% opted for healthier cooking habits, 57% decreased the intake of calorie-laden drinks, and 50% said that they make healthier choices while eating out. More importantly, the results from the patient cohort (n=812) showed that Hb1AC, BMI, Weight,

BP_{sys}, and BP_{diast} were all significantly reduced (using paired samples t-test and $p < 0.05$) from baseline as a result of implementing Lifestyle Medicine.

Significance/Implications/Relevance

We show that implementation of this curriculum, patients benefited because their doctors were equipped with meaningful ways of imparting healthy lifestyle counselling in addition residents also enhanced their own well-being and adopted healthier habits.

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Poster # 9: Addressing physician shortage in medically underserved rural and tribal communities through residency program collaboration

Author(s): Natasha Bray, DO, MEd; Douglas Nolan, DO; Ashton Clayborn, DO, MS; Daniel Molina, MD

Institution(s): Oklahoma State University Center for Health Sciences; Cherokee Nation; Choctaw Nation Health Services; Chickasaw Nation Department of Health

Abstract Type: Innovation-focused

Background

Oklahoma faces a physician shortage and ranks 42nd in the nation for number of primary care providers per capita. This deficit is greater in rural versus urban communities. Indian Health Services Oklahoma City service area has a physician vacancy rate of 22%. This physician shortage directly affects patients through longer wait times and increased travel distance to receive primary care services. This results in a greater health, financial and environmental burden. Though rural populations, including those living within tribal reservations, would benefit by additional physicians, recruiting to these communities is challenging. According to AAMC, 55.5% of physicians who completed residency training between 2010-2019 are practicing in the state where they completed training and the majority practice within 100 miles of their training program. States with physician shortages need to increase training opportunities within underserved communities to ensure an adequate physician workforce.

Objectives

This study reports recent data from three tribally affiliated rural family medicine residency programs and physician retention in medically underserved areas/populations (MUA/Ps) and tribal health care systems.

Methods

Oklahoma State University and Osteopathic Medical Education Consortium of Oklahoma (OMECO) have established rural Family Medicine residency programs in partnership with sovereign tribal nations - Cherokee Nation (2007), Choctaw Nation (2012) and Chickasaw Nation (2018). All three residency programs are in MUA/P and have HPSA scores ranging from 14-19. The residency programs each have a unique curriculum, but all share an emphasis on addressing the healthcare disparities facing Native American citizens living in rural communities. The three programs utilize the tribal health care centers for their continuity care clinics and complete at minimum of 24 of 36 months of clinical rotations within their respective tribal healthcare facilities. Living and working immersed in these communities allow residents to not only develop cultural competence in the care of Native American patients but to view themselves as part of these thriving communities.

Results/Outcomes/Improvements

As of September 2021, the residency programs have graduated 54 family physicians. 5 residents are either in a fellowship or transitioning their practice location and are excluded from the data analysis. 78% (38/49) of the physicians are in practice in the state of Oklahoma. 80% (39/49) of the physicians are practicing in MUA/P with 51% (25/49) working in either Tribal Healthcare systems or Indian Health Services (IHS). According to American (AAMC), 25.5% of physicians who completed training between 2010 and 2019 are practicing in medically

underserved communities. Of the graduates working within the Tribal Healthcare/IHS system, ten physicians work for the Cherokee Nation, ten physicians work for the Choctaw Nation, two physicians for the Chickasaw Nation, and one physician each for the Muscogee (Creek) Nation, Osage Nation and the IHS facility in Claremore, Oklahoma.

Significance/Implications/Relevance

Training residents in a rural community and tribal healthcare system produces culturally sensitive, caring, competent Family Practice Physicians that will elect to practice in rural or medically underserved areas. This represents an important strategy to address the health and healthcare disparities and inequities that effect our medically underserved areas and populations.

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Poster # 10: A Resident Well-Being Program Reduced Burnout and Improved Worklife Satisfaction: Results from a Mixed-Methods Outcomes Evaluation

Author(s): Diane Maloney-Krichmar, MS, PhD; Asha Thomas, MD, FACP, FACE; Chris D'Adamo, PhD; Diane Maloney-Krichmar, MS, PhD

Institution(s): Sinai Hospital of Baltimore, Inc.; University of Maryland School of Medicine

Abstract Type: Research-focused

Background

Physician burnout is a longstanding problem (1). In 2016, the ACGME partnered with the American Association of Medical Colleges (AAMC) and the National Academy of Medicine (NAM) to co-chair the Action Collaborative on Clinical Well-Being to promote physician well-being and resilience. These national organizations drew attention to the high rates of burnout, depression, and elevated risks of suicide among resident physicians. Within a year, the ACGME revised its Common Program Requirements Section VI to specifically focus on addressing physician well-being. The revisions called on all ACGME-accredited training programs to create clinical and educational environments focused on respect and accountability for physician well-being (2). The COVID-19 pandemic has created even greater concern for resident burnout and depression. In response to the ACGME's call to action, a "Resident Well-Being Program" was implemented and evaluated at a community hospital in Baltimore, MD.

Objectives

As the problem of physician burnout has become more recognized and documented, the resources, tool kits and suggestions for how to address the problem have grown. The objective of the well-being program was to implement and evaluate specific strategies, as initially identified by our residents, that promoted greater well-being and engagement as assessed in a mixed-methods outcomes evaluation consisting of validated quantitative metrics and qualitative analysis. The Resident Well-Being program was developed in 2019 by a multi-disciplinary team consisting of Graduate Medical Education leadership, faculty physicians, and residents. The program consisted of a wide variety of offerings aimed at reducing physician burnout and enhancing wellbeing. Well-being programming included increased opportunities for social activities, initiation of book/journal clubs, meditation and yoga classes, end of block dinners, and regularly scheduled breakfasts/dinners with the residency program leadership.

Methods

A mixed-methods outcomes evaluation was performed with data collection occurring at the end of both 2019 and 2020. Validated quantitative measures utilized in the outcomes evaluation were the Maslach Burnout Inventory (MBI) and the Areas of Worklife Survey (AWS). The MBI consists of Emotional Exhaustion, Depersonalization, and Low Personal Accomplishment domains. The AWS consists of Workload, Control, Reward, Community, Fairness, and Values domains. Qualitative data that were collected included questions on barriers to wellbeing and sources of enjoyment in the work environment. In 2020, residents were asked how COVID affected them. Quantitative outcomes were compared in 2019 and 2020 with unpaired t-tests. Multivariate linear regression models were also constructed that included year, gender, department, years of experience, and participation in the Resident Well-Being program. Qualitative data were subjected to thematic analysis.

Results/Outcomes/Improvements

A total of 78 residents participated in the outcomes evaluation. Participating residents spanned all GME programs at the institution (Internal Medicine, OB/GYN, Ophthalmology, Pediatrics, Physical Medicine and Rehabilitation, and Surgery). There were statistically-significant improvements from 2019 to 2020 in Emotional Exhaustion (2.77 to 2.33, $p=0.01$), Depersonalization (1.65 to 1.22, $p=0.003$), Personal Accomplishment (4.67 to 4.86, $p=0.05$), Control (3.18 to 3.41, $p=0.03$), and Reward (3.30 to 3.65, $p=0.01$). In year 2020, factors that were consistently associated with improved domains of burnout and worklife satisfaction in multivariate regression modeling were female gender, greater number of years of practice, and participation in Resident Well-Being programming. Themes that emerged in qualitative analysis included high levels of collegiality with coworkers, long hours interfering with work-life balance, and appreciation for and desire for more well-being programming.

Significance/Implications/Relevance

A Resident Well-Being Program was feasible, well-accepted, and associated with improvements in resident burnout and worklife satisfaction. Interestingly, the improvement in these parameters from 2019 to 2020 were noted despite the dramatic increase in stress noted among physicians during the COVID pandemic. Participation in the Resident Well-Being program was associated with reduced burnout and improved worklife balance in multivariate regression analysis. The results also suggest that special attention may be warranted for males and residents with fewer years of experience, as they may experience more burnout and lower worklife satisfaction. The improved outcomes and desire for more wellbeing program have led to the continuation of the Resident Well-Being Program at this institution and this may represent a pathway to reduced burnout and improved worklife satisfaction for residency programs at other institutions.

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- (2) ACGME Common Program Requirements, VI.C, p. 43.

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Poster # 11: Learner Perceptions of a Remote Neurology Journal Club Curriculum: Comparing Traditional and Flipped Formats

Author(s): Katherine Fu, MD; Holly Wilhalme, MS; Adrienne Keener, MD

Institution(s): UCLA

Abstract Type: Research-focused

Background

The traditional journal club format often has one trainee presenting the article with discussion and questions encouraged among attendees, while faculty provide commentary. In contrast, one previously studied flipped journal club in an emergency medicine residency program involved residents of different postgraduate year (PGY) levels reading different sections of the article and leading the discussion of each section in small groups, while faculty rotate to contribute to the discussion (1). This format has demonstrated potential in achieving educational objectives while being favored by residents and faculty.

Objectives

We aimed to adapt this previously studied flipped journal club format to a neurology residency program via a remote platform and to assess learner perceptions of such a curriculum, which alternated between traditional and flipped formats. We hypothesized that the flipped format would be preferred in regards to resident preparation and engagement in discussion.

Methods

In a pre-curriculum survey, we assessed the personal goals of neurology residents for the journal club curriculum and, for residents who had been in the residency the year prior, their satisfaction with the pre-existing journal club curriculum. The curriculum was implemented in 2020-2021 with monthly journal club sessions, alternating between traditional and flipped journal club formats using a Zoom platform. The post-curriculum survey compared residents' preferences for the traditional and flipped formats using composite measures of journal club preparedness, perceptions of achieving journal club objectives, interaction and engagement during journal club, and overall satisfaction, calculating the mean and 95% confidence interval for the composite satisfaction with the flipped format.

Results/Outcomes/Improvements

19/28 (68%) of residents in the neurology residency program completed the pre-curriculum survey and 12/28 (43%) of residents completed the post-curriculum survey. When assessing composite satisfaction with the flipped format, it was preferred in regards to journal club preparedness (mean = 1.5 out of 2, 95% CI= 0.993, 1.916), achieving objectives met through journal club (mean = 3.0 out of 5, 95% CI = 1.761, 4.239), interaction and engagement during journal club (mean = 3.9 out of 5, 95% CI = 3.207, 4.611), and overall satisfaction (mean = 1.5 out of 2, 95% CI= 0.904, 2.006).

Significance/Implications/Relevance

The flipped journal club format is one that is feasible to implement in a remote learning environment at a neurology residency program and was the preferred format in regards to journal club preparedness, residents' interaction and engagement during journal club, perceptions of achieving journal club objectives, and overall satisfaction.

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Poster # 12: Results of an Interprofessional E-Learning Module for Obesity Bias in Family Medicine Clerkship Students

Author(s): Jessica Koran-Scholl, PhD; Birgit Khandalavala, MD

Institution(s): University of Nebraska Medical Center

Abstract Type: Innovation-focused

Background

An E-Learning module on obesity bias was developed which includes a video-based patient scenario and five clinical vignettes with interprofessional clinical staff representing a robust Patient Centered Medical Home (PCMH) model. The module utilizes validated materials and highlights interactions a patient with obesity might encounter while at a primary care appointment. Since its creation, this e-learning module has been used in the education of medical students and family medicine residents. Pre- and post surveys have been developed to evaluate the effectiveness of this teaching tool. Results will highlight the utility of this learning modality with family medicine clerkship students.

Objectives

1. Describe the steps needed to build and disseminate an e-learning module for use in medical education.
2. Explore how an e-learning modality can be utilized for the dissemination of education about explicit and implicit obesity bias to medical students remotely while they complete rural family medicine rotations.
3. Discuss lessons learned and the authors will provide a template for the development of e-learning projects to meet your programs educational goals.

Methods

Approximately 120 third year medical students will complete 8-week rural family medicine rotation (clerkships) during the 2021-2022 academic year. During their rotations, a focused 2 hour educational didactic on obesity and obesity bias will be presented via zoom. Each cohort will complete the Interprofessional obesity bias E-learning module as a part of this educational session. Pre and post didactic survey dissemination will be completed with each clerkship cohort. Survey questions assess the students comfort and understanding of their own potential for bias when working with patients with obesity. Additionally we assess the usefulness of the E-Learning module to provide opportunities for self reflection and mitigation strategies for obesity bias in the clinical setting.

Results/Outcomes/Improvements

All Family Medicine clerkship students for the 2021-2022 academic year will complete the e-learning obesity bias module. This module will be assigned as part of a larger workshop on obesity education. Analysis from pre and post-surveys is currently underway. We anticipate that results will show the e-learning module effectively demonstrates (based on survey outcomes) the ways in which implicit and explicit obesity bias can occur in a simulated patient centered medical home (PCMH) clinic visit. Additionally, we postulate that residents will feel more comfortable and confident in their ability to interact with patients with obesity as well as identify and mitigate obesity bias in themselves and others after completing the e-learning module.

Significance/Implications/Relevance

Obesity bias is widely prevalent and can impact patient health outcomes. Recognition of obesity bias, and of implicit bias in particular, is deficient in medical students and residents. Recognition of this bias, and targeted mitigation is essential to counter the potential for adverse effects. A significant void in education material for understanding implicit bias in obesity is evident. Creating novel educational eLearning modules that address implicit bias provides an opportunity for self-directed learning, reflection and better understanding of core concepts and bias mitigation.

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Poster # 13: A Day Late and a Dollar Short: A Job-Demands Study of the Relationship Between Resident Debt and Burnout

Author(s): Sarah Meadows, EdD, FACEHP, CHCP; Abraham Nussbaum, MD, MTS

Institution(s): Denver Health Hospital and Authority

Abstract Type: Research-focused

Background

Residency training has been well documented as the physician career stage when burnout is often highest. Also common among residents is financial indebtedness, a demand that has been evaluated for its relationship to burnout in different ways among diverse resident populations. Various burnout assessment tools and versions with different scoring methods have been used. Financial indebtedness has been assessed with questions gauging amount of either educational or household debt, anticipated debt upon completion of residency, and level of concern related to debt. As a result, findings are mixed across studies that focus on the relationship between resident burnout and debt. The job demands-resources model suggests a confluence of high job demands and insufficient job or personal resources is associated with burnout. Increased understanding of the burnout-debt relationship will help resident stakeholders identify resources necessary to address the debt demand.

Objectives

The purpose of this study was to analyze the effects of financial debt on prevalence of burnout in physician residents across clinical specialties and post-graduate years. This study built upon previous research by looking beyond just educational debt to reveal a more comprehensive debt picture and how it correlated to burnout among residents in different specialty areas and years in their training programs.

Methods

Residents were recruited from two Colorado institutions who sponsored residency programs in nine clinical specialties spanning five program years: anesthesiology, emergency medicine, family medicine, general surgery, internal medicine, pediatrics, psychiatry, obstetrics and gynecology, and radiology. A 70% sample was drawn from this population (438/625) using disproportionate stratified sampling. An online survey was administered to assess burnout with two single-item questions adapted from the Maslach Burnout Inventory, and to assess financial debt level and perceived financial situation strain. A correlational research design was employed to inform the association between variables, direction of variable relationships, and strength of the association. Spearman's rank-order correlation was used to measure the correlation between each single-item measure of burnout (emotional exhaustion and depersonalization) with each independent variable to produce four correlation statistics.

Results/Outcomes/Improvements

Completed surveys were received from 54.1% (237/438) of residents sampled. High burnout was observed in 37.6% (89/237) of the sample related to emotional exhaustion, and 33.3% (79/237) related to depersonalization. The most common debt amount was more than \$300,000 (35.9%, 85/237). Just under half of respondents somewhat or strongly agreed their financial situations were a serious strain (47.7%, 113/237). Debt level and perceived strain resulting from financial situations of residents surveyed had strong correlations to burnout: statistically

significant positive correlations were found between emotional exhaustion and household debt ($r(235) = .129, p = .046$) and between emotional exhaustion and financial strain ($r(235) = .231, p = .000$). Statistically significant positive correlations were also uncovered between depersonalization and household debt ($r(235) = .155, p = .017$) and between depersonalization and financial strain ($r(235) = .207, p = .001$).

Significance/Implications/Relevance

It is necessary for research to focus on uncovering variables related to burnout so that both reactive and preventative measures can be employed at an individual, program, institution, and systems level. This study demonstrated that resident financial debt is a variable that physician residency stakeholders must address. Its relationship to burnout suggests attention to reducing the debt demand and increasing the debt resources could positively impact residents' experience in their programs and optimize their care of patients during residency.

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Poster # 14: Factors Associated with Psychological Distress and Burnout in Trainees at an Urban Tertiary Care Hospital during the COVID-19 Surge

Author(s): Saadia Akhtar, MD; Robert Pietrzak, PhD, MPH; Michelle Tong, MS; Jordan Feingold, MD; Steven Southwick, MD; Adriana Feder, MD; Lauren Peccoralo, MD, MPH; Jonathan Ripp, MD, MPH; Michael Leitman, MD

Institution(s): Icahn School of Medicine at Mount Sinai; Yale School of Medicine

Abstract Type: Research-focused

Background

Graduate medical education (GME) trainees have higher rates of burnout compared with their age-matched peers outside the field of medicine. (1) The COVID-19 pandemic placed an additional and unparalleled strain on these trainees, calling on them to not only care for critically ill patients infected with a novel and lethal virus, but also requiring them to upend standard educational trajectories and pause specialty training opportunities. (2) While prior research has examined COVID-related distress and burnout during the pandemic in some GME specialties, none have evaluated these symptoms across many frontline specialties. The Mount Sinai Health System in New York City, which trains one of the largest cohorts of GME trainees, was at the epicenter of the US COVID-19 pandemic in Spring 2020, and served as a high-acuity study site to explore the impact of COVID on trainees.

Objectives

To identify the prevalence of and factors associated with psychological distress and burnout in trainees across many frontline specialties at an urban tertiary care hospital in NYC at two timepoints: during and after the initial 2020 COVID-19 pandemic surge.

Methods

Data were analyzed from a prospective cohort study of 183 trainees working in frontline specialties at the Mount Sinai Hospital in NYC and surveyed during the initial 2020 COVID-19 pandemic surge (April-May 2020; T1) and again 7 months later (T2). A web-based survey was administered to assess psychological distress (pandemic-related post-traumatic stress disorder (PTSD), major depressive disorder (MDD), and generalized anxiety disorder (GAD)) symptoms and burnout, occupational and personal exposures to COVID-19, coping strategies, and psychosocial characteristics. McNemar's tests were conducted to compare the prevalence of distress and burnout over time and multivariable logistic regression analyses were conducted to identify T1 determinants of T2 psychological distress and burnout.

Results/Outcomes/Improvements

From T1 to T2, the prevalence of psychological distress increased from 16.3% to 27.2% ($p=0.001$); the prevalence of burnout increased, albeit not significantly, from 32.6% to 39.3% ($p=0.072$). For distress at T2, after adjustment for baseline distress (odds ratio [OR]=10.96, 95%CI=3.90-30.79), greater COVID-19-related stressors (OR=2.72, 95%CI=1.54-4.82) were positively associated with this outcome, while greater team camaraderie (OR=0.42, 95%CI=0.18-0.98), emotional support from loved ones (OR=0.45, 95%CI=0.26-0.80) and dispositional curiosity (OR=0.62, 95%CI=0.41-0.94) were negatively associated. For burnout at T2, after adjustment for baseline burnout (odds ratio [OR]=10.02, 95%CI=4.51-22.26), greater work-related concerns (i.e., prioritizing health of one COVID-19 patient over another; OR=1.60,

95%CI=1.07-2.41) were positively associated with this outcome, while greater perceived instrumental support (OR=0.65, 95%CI=0.51-0.83) was negatively associated.

Significance/Implications/Relevance

Using a survey of trainees across multiple frontline specialties, we evaluated the prevalence of and factors associated with psychological distress and burnout at two timepoints during and after the COVID-19 pandemic surge. While largely uncontrollable factors such as COVID-19-related stressors and work-related concerns increased risk for these adverse outcomes, more controllable, systems- and individual-level factors, such as team camaraderie, emotional and instrumental support, and dispositional curiosity, were protective. These findings suggest that interventions targeting (1) cohesive and supportive team dynamics and (2) increased time away from work to spend with loved ones or to form new, meaningful relationships, may help mitigate risk for psychological distress and burnout in trainees during both “standard” medical training and times of crisis.

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Poster # 15: Streamlining Scholarly Activity Tracking for Graduate Medical Education Annual Reporting

Author(s): Carol Thrush, EdD; Molly Gathright, MD; Beatrice Boateng, PhD

Institution(s): University of Arkansas for Medical Sciences; UAMS

Abstract Type: Innovation-focused

Background

Academic health care settings need scholarly activity summary data for external accreditation reporting (e.g., ACGME, LCME), while internal leaders such as deans and department chairs typically desire such information for administrative purposes. Unfortunately, the timelines for such needs are often not aligned, resulting in redundant tracking and human resource inefficiencies. The logistics of collecting and accurately reporting scholarly activity for academic programs can also be challenging, particularly for large, research-intensive programs with substantial faculty rosters. The motivation for this project arose from a desire to improve annual scholarly activity tracking tasks and processes. Benefits of research networking systems and institutional digital repositories to facilitate research collaborations have been described (1-3), but to our knowledge efforts to harness these resources to help GME programs address scholarly activity tracking has not been previously reported.

Objectives

The goal of this project was to provide institutional support to streamline scholarly activity tracking for our residency and fellowship programs. Our sponsoring institution is based at a mid-size research-intensive academic health center with 64 ACGME-accredited programs, and more than 670 core faculty and additional non-core faculty dedicated to GME training, with approximately 700 trainees annually. This goal was envisioned and facilitated by collaboration between GME staff and institutional leaders affiliated with our Clinical Translational Science Award (CTSA), the availability of research networking software sponsored by the CTSA program--Profiles Research Networking Software (Profiles), and a fortuitous strategic improvement goal set by institutional leaders.

Methods

We leveraged three key institutional processes to facilitate the project goals: 1) The presence and active usage of an open-source research networking platform, Profiles. Profiles was designed to help researchers easily connect and collaborate, particularly among CTSA institutions (4-6). Profiles was first implemented at our institution in 2015-16 and serves as a public, online directory similar to "Linked-In" type programs and featuring individual faculty pages showcasing their interests, specialties, publications, and grants; 2) An institutional strategic planning goal, promoted by the Provost and Department Chairs, requesting faculty to update and verify their Profiles pages by the end of the academic year 2020-21; and 3) Collaboration between GME and institutional leadership to export and format Profiles scholarly activity data (publications/grants) for 2020-21, which the DIO then provided to residency and fellowship program directors (PDs) and program coordinators (PCs).

Results/Outcomes/Improvements

The data exported from Profiles resulted in an Excel file populated with 2,437 publication citations and 879 grants for all College of Medicine faculty members for the 2020-21 academic year. These results were shared with program directors and coordinators in late July 2021 and were formatted with each row representing an individual faculty member's name, and columns representing grants and citations with PMID numbers, grouped by department. Feedback from program coordinators and program directors has been overwhelmingly positive. Representative quotes from PDs/PCs were received such as: "This makes my work so much easier in trying to collate all the necessary information that I struggle to get from individual faculty members in a timely manner;" "A HUGE thank you for sending this. It provides some really helpful information without having to peruse 25 CVs that are 50 pages each;" and "This helps make this part of updating WebADS so much more efficient and reliable."

Significance/Implications/Relevance

Extracting and sharing faculty scholarly activity data from our institution's research networking software, combined with strategic planning goals, and institutional collaboration resulted in multiple benefits and efficiencies. A minor limitation of this approach was the Profiles platform which auto-populates faculty citation data from PubMed-indexed publications; thus, errors can occur for authors with common names (e.g., David Smith), and non-PMID publications are not automatically captured. These limitations were mitigated by strategic planning goals for faculty to verify their Profiles page. Another limitation was the lack of detail needed for other required ADS tracking (e.g., conference presentation counts, committees, QI involvement). However, building on the success of this effort, next year we anticipate collaborating with our faculty evaluation leaders to further streamline harvesting all ADS scholarly activity needed from faculty annual reports.

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Poster # 16: Quantifying For-Profit Outcomes in GME: A Multispecialty Analysis of Certifying Exam Pass Rates in For-Profit Affiliated Residency Programs

Author(s): Jared Lassner; James Ahn, MD; Shannon Martin, MD; Paul Kukulski, MD

Institution(s): University of Chicago Pritzker School of Medicine; University of Chicago Medical Center

Abstract Type: Research-focused

Background

Previous studies have found that for-profit and nonprofit hospitals differ across several measurable factors, possibly due to different incentive structures at these institutions(1-5). Despite these potential differences and a growing presence of for-profit hospitals in graduate medical education (GME), no study has ever quantified for-profit affiliated residency program prevalence or examined if a difference in educational outcomes exists between residencies affiliated with for-profit and nonprofit institutions.

Objectives

We sought to further understand for-profit involvement in Internal Medicine (IM), General Surgery (GS), and Pediatrics GME by quantifying the change in for-profit affiliated residency programs from 2001-2021 and comparing board certifying exam pass rates between residencies affiliated with for-profit and nonprofit hospitals.

Methods

We used public ACGME and Medicare data to quantify for-profit prevalence in IM, GS, and Pediatrics GME from 2001-2021. We used public 2017-2019 American Board of Surgeons (ABS) surgery qualifying exam (QE) (n=242 programs, 3,453 examinees) and certifying exam (CE) (n=242 programs, 3,109 examinees) pass rate data, 2018-2020 American Board of Internal Medicine (ABIM) (n=465 programs, 23,922 examinees) pass rate data, and 2018-2020 American Board of Pediatrics (ABP) (n=202 programs, 9,819 examinees) pass rate data to create univariate linear regression models to determine the relationship between several program characteristics of interest, including profit status, and pass rate within each specialty and across the three specialties combined. These analyses were repeated using multivariate regression models which included all significant variables identified by the univariate regressions to determine if a relationship exists between board certifying exam pass rate and profit status.

Results/Outcomes/Improvements

We found that the proportion of for-profit affiliated residencies increased by 301.9% (6/222 to 37/341) in GS, 212% (18/345 to 95/583) in IM, and 53% (4/184 to 7/209) in Pediatrics from 2001-2021. There were significantly lower pass rates in for-profit affiliated programs in IM ($p<.05$), Pediatrics ($p<.05$), GS QE ($p<.05$), and the three specialties combined ($p<.05$). This relationship only remained significant in Pediatrics ($p<.05$) after controlling for other program factors.

Significance/Implications/Relevance

There have been various studies on how Step 1 and Step 2 CK scores correlate with resident performance, but these studies were specialty-specific and varied significantly by performance measurement. This systematic review is the first to our knowledge considering the use of Step 1 and Step 2 CK as predictors of multivariate resident performance across all ACGME accredited specialties. The results of this study have merit and should be contemplated in the context of the decision to make Step 1 a pass/fail examination. Considering the immense weight placed on medical students' USMLE Step 1 and Step 2 CK success, the fact that only 92 eligible studies of varying capacity and result have been performed over the three-decade lifetime of these tests is questionable at best. Further studies are imperative to discern the utility of Step 1 and Step 2 CK as predictors of resident performance and as tools for resident recruitment and selection.

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Poster # 17: Development of an Evidence-Based Compendium of Institutional Graduate Medical Education Leadership Competencies (GMELCs)

Author(s): Margaret Hadinger, EdD, MS; Brigham Willis, MD, MEd; Jacqueline Levesque, AEd; Kathryn Andolsek, MD, MPH; Sharon Hall, MSM; Karen Broquet, MD, MHPE

Institution(s): Lehigh Valley Health Network, Department of Education; University of California – Riverside School of Medicine; University of Houston – College of Medicine; Duke University - School of Medicine; Charleston Area Medical Center; Southern Illinois University

Abstract Type: Innovation-focused

Background

Graduate Medical Education (GME) leaders are critical to meeting the challenges and future imperatives at the nexus of medical education and clinical practice. Given health care's complexity and level of rapid change it is essential that leadership competencies in health care be explicitly delineated and cultivated. A competency approach identifies the skills, attitudes, and behaviors needed for success in any role, including leadership. Competency frameworks have been designed in education broadly and more recently in medical education with the transition to competency-based assessment and the use of milestones. To address this need, in 2004, the Association of American Medical College (AAMC) Group on Residency Affairs (GRA) developed the first set of Core Competencies for Institutional Leaders/Designated Institutional Officials (DIOs). The GMELCs were revised in 2008 and again in 2015.

Objectives

The purpose of the GMELCs was to:

1. Define the essential characteristics/attributes required for individual success in GME leadership roles.
2. Describe the expected measure able or observable outcomes that contribute to superior performance.
3. Form a basis for identifying and developing the next generation of leaders.

This poster will:

- 1) Describe the GMELC model.
- 2) Describe the process undertaken to develop the GMELCs.
- 3) Suggest current and future uses of the GMELCs.

Methods

The GRA Leadership Competency Task Force searched the literature in medical education as well as that of other professions, evaluated existing tools and frameworks, surveyed GRA membership, and conducted stakeholder interviews and focus groups. This work culminated in the Institutional GME Leadership Competencies (GMELCs). With each revision the focus of the GMELCs became less on discrete job responsibilities and more on the emerging leadership characteristics necessary for success in GME leadership roles, as well as to recognize that institutional leadership incorporates varying job titles and levels. Each revision of the GMELCs was developed in conjunction with the AAMC GME Leadership Development Course.

Results/Outcomes/Improvements

The GMELCs prioritize competency in leadership. The framework includes four Domains. The first three Domains (Foundational Attributes, Leadership Capabilities and Knowledge and Skills) contain multiple broad competency areas, and each competency area is further delineated into key components describing specific observable behaviors or work products. Competencies and associated sub competencies are written as observable behaviors or work products. An accompanying Assessment Toolbox includes self- assessment and multi- rater tools for all domains and competencies was also developed. The fourth Domain (Entrustable Professional Activities) outlines essential institutional GME activities and are presented as outcomes that are achieved through the personal integration of the other three Domains and through the work of teams.

Significance/Implications/Relevance

The GMELCs - developed and utilized by a broad cohort of GME leaders - are a novel and needed resource. They have strong face validity for new and veteran GME leaders. Their flexibility allows for multi-level application. They can be integrated into recruitment, assessment, professional development, and succession planning. They can be used to acclimate new DIOs, to provide clarity regarding duties and expectations, and to develop enhanced job descriptions for GME leaders. The GMELCs and the accompanying toolkit can be used for self-assessment and self-learning, and to assess performance of GME leaders and to provide formative developmental feedback. They can additionally be applied to team performance. Organizationally, they can be deconstructed into subsets for focused reviews and QI and to advocate for additional resources. The GMELCs now serve as the framework for GRA Leadership Professional Development activities, including its GME Leadership Course and Annual Meetings.

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Poster # 18: Reinventing Our CCC Process while Still Holistically Reviewing All Residents

Author(s): Melanie Haydu, AA; Saba Hasan, MD, FACP

Institution(s): Capital Health Regional Medical Center

Abstract Type: Innovation-focused

Background

The ACGME describes the Clinical Competence Committee's (CCC) purpose as "reviews all resident evaluations semi-annually, prepares and ensures the reporting of Milestones evaluations...and advises the Program Director regarding resident progress, including promotion, remediation, and dismissal." (CCC Guidebook, 2nd ed., pg. 2)

We are a 53-resident categorical program in a community setting. Each resident is individually discussed in weekly CCC meetings held in September-December and March-June each academic year. After receiving a complement increase from 39 to 60 residents, the program has been tasked with coming up with innovative ways to be able to holistically review each resident in detail, while still being respectful of faculty's time.

Objectives

Our program developed a 2-page CCC summary document to project at our weekly CCC meetings with all resident review information included. This document reflects all resident information compiled through our online residency management software, New Innovations (NI), but in a more condensed, easily readable format. This allows the CCC to focus on pertinent information regarding a resident's progression in the program without showing a lengthy document with reports pulled from submitted evaluations.

Methods

Advisors are sent a composite of information on their advisees exported from NI including a lengthy evaluation report with aggregate milestone data from mapped evals, all attending/peer comments, standardized scores, procedures, scholarly activity, and learning plan goals. Information is reviewed in detail and condensed into a more easily digestible CCC meeting form. This includes all above information but instead of a 30 page document, it is shown in a 2-page format. Following review of reports, faculty enters notable positive and constructive comments from the eval report, strengths and opportunities for the minutes, performance on each milestone (meets/does not meet expectations), board eligibility/ability to enter autonomous practice (if applicable), and concerns/action plans (if applicable). During discussions, the form is projected to the CCC, highlights are discussed, and faculty then moves to the milestones. A minimum of 4 residents are discussed per 1-hour meeting.

Results/Outcomes/Improvements

Using the CCC meeting form assists advisors and CCC members to move through reviews without getting distracted by a long report-type document, allowing focus on less important information. The fillable form allows CCC to review important resident progression information in detail, while still allowing advisors to fully review a resident and add pertinent details for discussion. Since the implementation of the form, faculty has expressed improved satisfaction with the CCC meeting process, and have been able to fully review more residents in a 1-hour meeting than previous years, given the program's increased complement. The exported NI

document is no longer projected at meetings, so faculty is tasked with coming with full knowledge of what was reported. Advisors are also asked to be prepared to explain milestones ratings using the Milestones 2.0 supplemental guide; because of the condensed projected form for the meeting, CCC has additional time to discuss each milestone in detail.

Significance/Implications/Relevance

In using the new CCC meeting form for semi-annual resident reviews, the CCC is able to fully discuss every resident in a shorter amount of time. Completing the form encourages faculty to fully understand and review each of their advisees, which will also allow them to identify struggling residents earlier so they can be placed on an action plan for improvement. For these residents, it is the program's aim to help guide them through challenging times with the goal of graduating a competent, board-eligible and autonomous physician.

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Poster # 19: Do I Belong Here? Exploring UIM Trainees' Sense of Belonging in Academic Medicine after Participation in the LEAD Program

Author(s): Lahia Yemane, MD; Carmin Powell, MD; Jeffrey Edwards, MD; Takudzwa Shumba, MD; Al'ai Alvarez, MD; Belinda Bandstra, MD; Michelle Brooks, C-TAGME; Cati Brown-Johnson, PhD; Wendy Caceras, MD; Tamara Dunn, MD; Carrie Johnson, MBA; Felipe Perez, MD; Travis Re

Institution(s): Stanford School of Medicine; Boston Children's Hospital

Abstract Type: Innovation-focused

Background

Across decades, there have been no significant increases in the number of underrepresented in medicine (UIM) residents, fellows, or faculty in academic medicine and especially in leadership positions. Literature on the barriers to inclusion and retention have highlighted: (1) culture: dealing with bias and racism (2) lack of representation, leading to isolation and the minority tax and (3) lack of mentorship, which can all affect sense of belonging and professional identity formation. We developed the Leadership Education in Advancing Diversity (LEAD) Program to address these barriers through a 10-month longitudinal curriculum for residents and fellows across GME that provides leadership training and mentorship in creating scholarly works around diversity, equity, and inclusion (DEI) topics.

Objectives

The purpose of this study was to explore how participation in the LEAD Program impacted UIM residents and fellows' sense of belonging, professional identity formation and perceptions on pursuing a career in academic medicine, future leadership roles, and future DEI work.

Methods

We conducted an IRB-approved qualitative study with semi-structured individual interviews. Those eligible to participate had completed the LEAD Program as a resident or fellow in one of the first 4 cohorts (2017-2021) and identified as UIM defined by the AAMC. Interviews were conducted virtually, audio-recorded and transcribed verbatim for review. A brief post-survey was done to collect demographic information. Data were analyzed by two authors using modified grounded theory, with themes identified through constant comparative approach. Member checking was done to ensure trustworthiness of the themes.

Results/Outcomes/Improvements

14 interviews were conducted. Themes included: (1) Culture: LEAD creates a diverse community centered on shared DEI values. (2) Mentorship: LEAD mentors are considered vital as they create a longitudinal, trusting relationship and provide support and sponsorship. (3) Allies: Having allies participate in LEAD brings hope to them that they are not fighting alone for culture change. (4) Representation: LEAD deepened their sense of personal and professional identity as UIM and appreciation for their unique contributions as a physician due to their personal identity. (5) Sense of belonging in academic medicine: LEAD increases sense of belonging in academic medicine through validation of UIM trainees and demonstrating institutional value and commitment to DEI. (6) Perception on academic medicine careers: LEAD increases understanding of how to navigate careers in academic medicine by highlighting the different pathways possible, especially how one integrates DEI into academia.

Significance/Implications/Relevance

There are persistent structural barriers to the inclusion and retention of UIM residents and fellows as future faculty and leaders in academic medicine. This study provides further insights into the professional identity formation of UIM residents and fellows. The LEAD Program can serve as a model that can be adapted at other institutions' GME programs to support UIM trainees' sense of belonging, professional identity formation and perceptions on pursuing careers in academic medicine and leadership roles.

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Poster # 20: Impact of COVID-19 Pandemic on the Compliance of Electronic Medical Records (EMR) I-PASS Based Handover in ACGME-I Residency Program

Author(s): Fatima Al-khori, MD; Mohamed Alhajjaji, MD; Abeir Mohamed, MD; Ohood Alomari, MD; Amira Mustafa, FAAP, MD; Abubakr Imam, CHCQM, FAAP, MD; Manasik Hassan, MD, CABP

Institution(s): Sidra Medicine; Hamad Medical Corporation

Abstract Type: Innovation-focused

Background

COVID-19 Pandemic caused an unprecedented disruption in medical education and healthcare systems worldwide. EMR I-PASS based handover was a remarkable tool to overcome face to face handoff during the pandemic, however, this in itself lead to other challenges; how to provide an effective and yet comprehensive tool for this handover that might require focused user training.

Objectives

We aimed at constant monitoring every 3 months for the I-PASS EMR handover process with a goal of achieving > 60% completion of the elements in the American Academy of Pediatrics (AAP) guidance for written handover.

Methods

A cross sectional intervention study among the pediatric training program at Sidra Medicine started in June 2019 using screening surveys for the patients' medical records. It included multiple phases starting from PDSA cycle1 (transfer from non-electronic to EMR handover) then PDSA cycle 2 (EMR during COVID-19). All the records were screened using the 15 elements of AAP guidance for written handover.

Results/Outcomes/Improvements

Multiple phases achieved in PDSA cycle 1, phase-1: Screening the non-EMR handover for patients using AAP guidance and hands-on training on I-PASS. Phase-2: Safe transitioning to I-PASS EMR handover for all patients over one month. Phase-3: post-implementation evaluation: 100% transfer of pediatric inpatients' written handover from non-electronic method to electronic over 2 months period. The average compliance of AAP's 15 elements of handover in phase 1 was 56% subsequently improved to 65%. In phase 2, the average completion of the elements dropped down to 53% as new trainees joined the program, which improved after refreshment courses of hands-on training to 73% and 70%. In PDSA cycle 2 average completion dropped to 43% due to the following identified factors; COVID-19 pandemic, new trainees, and new implemented pandemic on-call system. Four elements were deficient across the whole project: diet, vital signs, activity, and code status with average of 20%, 10%, 3% and 3% respectively.

Significance/Implications/Relevance

The pandemic affected the healthcare system globally and its consequences was reflected on the training program. Many factors affected this project: Initially team work, excellent communication at all levels, and the continuous support from informatics education center and IT services led to initial success. However, the consistent monitoring of the EMR handover during pandemic showed regression in previous achieved percentages of completion and

compliance. Our project shows that implanting EMR handover using I-PASS can be achieved safely over 2 month-period with appropriate planning and follow up monitoring. It represents an excellent and safe tool to decrease human error in the hospital setting and ensure patients safety, however, the pandemic had a huge effect on the compliance, and this mandates future plans to include additional training for juniors and newly joined trainees using different methods, such as electronic learning modules with frequent courses and reminders.

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Poster # 21: New Insights into Best Practices for DIOs of Single and Small Site Sponsoring Institutions

Author(s): Walter Mills, MD, MMM; Wendy Barr, MD; David Araujo, MD; Francis Chu, MD

Institution(s): Natividad Medical Center; Lawrence Family Medicine Residency Program; Ventura Family Medicine Residency Program; Kaiser San Jose Family Medicine Residency Program

Abstract Type: Innovation-focused

Background

The Next Accreditation System (NAS), now nearly a decade since implementation started, has required new knowledge, skills, and attitudes for Designated Institutional Officials (DIOs) who lead Sponsoring Institutions' (SIs) GME programs. ACGME has categorized SIs as either multi or single/small sponsors (SSIs). Nearly 300 of the 800+ SIs are single/small. To meet the physician workforce needs in underserved areas with the largest opportunity for mitigating health care disparities, it is predicted that there will be a significant increase in the number SSIs. There is little research or guidance specific to best practices for SSI DIOs of existing or developing SSIs. Going forward such insight and guidelines are needed to support the predicted growth and success of SSIs. This will become increasingly important to the ACGME mission and reaching the goals outlined in SI2025 and beyond.

Objectives

To engage DIOs of SSIs inventorying current structure and practices, gaps and opportunities to improve given current experience and strategies to successfully lead their SSIs to comply with ACGME requirements and beyond, ie, seek institutional excellence.

Methods

The California Residency Network (CRN~75 Residencies) sponsored by the California Academy of Family Physicians issued a surveymonkey to its members. Program Directors (PDs) for Family Medicine Residencies and DIOs of California SSIs Program Directors (PDs) for Family Medicine Residencies and DIOs of SSIs were surveyed re: 1) The structure of GME operations including the support for the DIO role, ie, FTE and staff support. What would be the "ideal" structure to best meet ACGME requirements , needs of the organization and residency program 2) Whether the PDs also functioned as the DIO or were separate positions 3) The relationship of the DIO with the C-suite (CEO, COO, CFO, CNO) , CMO, MEC, QI, governing board 4) what changes would they recommend for their SI to improve their effectiveness as DIO 5) What recommendations for DIO role have emerged as result of CLER Site Visits and 10 Year Self Study 6) Their suggested innovations and improvements for ACGME to support their DIO roles

Results/Outcomes/Improvements

1)15 DIOs and Family Medicine Residency Program Directors in the California Residency Network (~75 Residencies) sponsored by the California Academy of Family Physicians responded

2)38.5% of DIOs were also the PD; 53% had a GME department separate from the Residency operations; 46% had no specifically identified GME coordinator

3) Suggested “ideal structure” included having a dedicated GME coordinator to support CLER programming, GMEC function, ADS, oversight and support of residency program; 0.1-0.2 FTE for the DIO “to do well” depending on details and what other programs and responsibilities the DIO role has for the institution.

4) DIOs often felt under-appreciated, not acknowledged by C-suite; 53% were on MEC; 30% of DIOs had similar role and authority as other chief officers eg, chief academic officer as part of C-suite and/or CMO, Chief Quality Officer, CIO; recommended ACGME design recommendations for DIO time requirements; need to be member of institutional leadership

Significance/Implications/Relevance

Using a survey for DIOs and PDs of SSIs we identified common themes, concerns, and recommended best practices. Larger national surveys beyond the California are recommended, however given this pilot survey’s findings, major themes likely to improve the Sponsoring Institution requirements seem to be: 1) establish minimum FTE for SSI DIOs and GME coordinators 2) stronger language on including SSI DIOs as “chief academic officers” who are legitimate members of the C-Suite and/or Medical Executive Committee; 3) recognition of the DIO role by governing boards and other SSI key stakeholders 4) consider merits and risks of separating the DIO role from the PD to ensure adequate support for the PD and better comply with the growing SSI requirements, and to avoid potential conflicts of interest (eg, ACGME now expects the DIO to review the PD’s Annual ADS program report prior to submission). 5) Increased ACGME support for DIO professional development including networking with other SSI DIOs

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Poster # 22: The Well-Being of Women Physicians of Color: Burnout, Career Satisfaction and Mental Health

Author(s): Deena McRae, MD; Deborah Deas, MD, MPH; Lupe Alonz-Diaz, MPA; Kathy Barton

Institution(s): UC Irvine School of Medicine; UC Riverside School of Medicine; Physicians for a Healthy California

Abstract Type: Research-focused

Background

A collaboration was established among the California Medical Association Foundation (now the Physicians for a Healthy California), the Network of Ethnic Physician Organizations, University of California Health, and Stanford University School of Medicine. Because there is limited research to inform the development of interventions tailored to women physicians of color, this study was initiated.

Endeavors to support women physicians of color are crucial, especially for patients from marginalized populations. Studies have linked racial and ethnic concordance between patients and their physicians to greater satisfaction of care (Cooper et al., 2003). Research also suggests that physicians of color are more likely to pursue careers in primary care and practice in underserved communities (Walker et al., 2012). Despite their critical role, women physicians of color may be disproportionately impacted by burnout, adversely affecting their mental health and increasing the risk for attrition.

Objectives

With support from The Physicians Foundation, this research was made possible. Through a quantitative survey and qualitative focus groups, the study aimed to identify the prevalence of burnout among women physicians of color and potential predictors of burnout. The findings will be used to develop intervention programs and policy recommendations for health care organizations, with a focus on reducing burnout, improving career satisfaction, bolstering mental health, and establishing equity for women physicians of color.

Methods

In September 2018, an online anonymous 63-item survey was completed by 829 women physicians practicing in California in order to quantitatively investigate the predictors of burnout for this group. Survey participants were asked about their demographic characteristics, symptoms and drivers of burnout, as well as exploratory questions about their work experiences, home lives and mental health. The data was analyzed using advanced multivariate approaches. There were also focus group discussions to achieve a deeper understanding of the work and life experiences of women physicians of color as they related to burnout, career satisfaction, and mental health. A total of 21 women physicians of color participated in four focus group sessions that were conducted in geographically dispersed regions of California.

Results/Outcomes/Improvements

For all women physicians, regardless of race, identified risk factors for burnout were: weekly on-call responsibilities, low professional fulfillment, dependent family members, dissatisfaction with work-life integration, primary care, private practice, low perceived workplace diversity and inclusion. For women physicians of color, additional risk factors were: experiences of discrimination, low perceived value at work, competency being questioned by colleagues and

patients. In the focus groups, the narratives shed light on the high prevalence of microaggressions and macroaggressions. Whether it be unconscious bias manifesting through mistaking a physician for a support staff member, or outright discrimination by patients and colleagues, the experiences were universal. The participants also described being excluded from leadership opportunities and vertical career growth, as well as having their competency questioned, potentially leading to disengagement and feelings of isolation.

Significance/Implications/Relevance

This study takes a crucial step toward shedding light on potential organizational changes that could improve burnout, career, and mental health outcomes among women physicians of color, particularly as they relate to work and family settings. The findings point to the need for greater investment in developing programmatic and policy solutions that effectively drive systemic changes, encompassing both physician well-being and equity. Specific recommendations are provided by this group in our white paper. Regular monitoring, tracking, and accountability on the part of health care organization leaders are required in order to produce meaningful change for this valued group.

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Poster # 23: Rural Residency Training to Address Rural Health Disparities: Outcomes of the HRSA Rural Residency Planning and Development Grant Program

Author(s): Judith Pauwels, MD; Emily Hawes, PharmD, BCPS, CPP; Erin Fraher, PhD, MPP; Cristen Page, MD, MPH; Lauren Tomola, MSLS

Institution(s): University of Washington School of Medicine, WWAMI Family Medicine Network; The University of North Carolina at Chapel Hill

Abstract Type: Innovation-focused

Background

Health disparities between rural and urban America have been well-documented. Although drivers of these disparities are multifaceted, a key determinant of poorer health in rural populations is lower access to timely quality healthcare. One proven strategy for addressing the rural-urban mortality gap is increasing physician supply in rural communities. Evidence for a residency program-based strategy to boost rural physician supply is strong.¹⁻³ As a result, both HRSA and ACGME have adopted strategic policies and resources to support development of rurally-located GME programs. The HRSA Rural Residency Planning and Development (RRPD) program has completed two years across three grant cycles, now with 46 grantees in Family Medicine (n=35), Internal Medicine (n=4), Psychiatry (n=6), and General Surgery (n=1). The Technical Assistance Center developed a model to propel grantees through the stages of development, and to help inform effective initiatives and address barriers for development.⁴

Objectives

- Describe the rural residency program development of the HRSA RRPD grantees, including anticipated vs actual “milestones” and timelines for progress.
- Identify the critical opportunities and barriers unique to rural environments as identified by the RRPD grantees for creating programs that will meet rural physician workforce needs.
- Compare and contrast the unique challenges in rural program development across different specialties.

Methods

The RRPD Technical Assistance Center, comprised of content experts who have helped launch over 100 rural residencies, is funded by HRSA to support and track the grantees of the RRPD program, now with its third cohort, in the specialties of family medicine, internal medicine, general surgery, and psychiatry. A roadmap for program development across six domains was developed and published, with detailed goals and objectives by stage of development. Grantee progress has been tracked quarterly through a tracking tool and rating scale related to those objectives, also noting key barriers and short-term objectives over time. The Center has now accumulated two years of progress tracking data on the Year One cohort, and another year on the Year Two cohort. Quarterly and summative results are now available demonstrating trajectories and timelines by initial stage of development, including overall measures as well as specific barriers related to the stages.

Results/Outcomes/Improvements

Data obtained during quarterly assessments was analyzed and tracked. Program readiness scores by demonstrated measurable program development over time with variability related to initial stage of readiness at entry and local factors. Select grantee achievements include ACGME accreditation of 20 programs (283 resident positions); 12 rural programs successfully recruiting residents (94 positions); Cohort 1 mean readiness scores increased from 33% (10/19) to 72% (5/21); Cohort 2 mean scores increased from 34% (10/20) to 55% (5/21). Assessments also identified barriers and evolution of key objectives over time. Despite differences between specialties, grantees shared common challenges including financial planning (94 mentions), faculty recruitment and retention (91), and curricular design (20). Actions to resolve challenges included individual in-depth consultations; monthly webinars; development of a toolkit of resources; and a peer-support network among grantees.

Significance/Implications/Relevance

Development of new GME programs in rural communities will impact the health of those populations directly through provision of clinical services, recruitment of residency graduates, and retention of faculty who stay in those locations, and indirectly in other ways. Demonstrating successful pathways for development of these programs is essential, including validating objectives to achieve program readiness, identifying assets and barriers that are most critical to success, and clarifying both financial and accreditation issues that demand ongoing attention from federal and state systems and the ACGME. This data provides specific results that identify those barriers and opportunities across multiple specialties, including tools and strategies to enhance success, and supports validation of a "roadmap" framework for rural program development in the future. This work seeks to strengthen the rural residency-to-workforce pipeline for rural communities in the United States.

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Poster # 24: Opioid Prescribing Variability Among All Emergency Medicine, Internal Medicine, and Family Medicine Graduates from 2014-2018

Author(s): Jesse Rafel, MD, MRes; Marina Marin, MS; Nivedha Satyamoorthi, BE; Sally Santen, MD, PhD; Sean Hogan, PhD; Kenji Yamazaki, PhD; Eric Holmboe, MD; Judee Richardson, PhD

Institution(s): NYU Grossman School of Medicine; Institute for Innovations in Medical Education; Virginia Commonwealth University; ACGME; AMA

Abstract Type: Research-focused

Background

Overdoses involving prescription opioids have led to nearly 250,000 deaths from 1999 to 2019, with rates quadrupling over two decades. Although prescribing rates are now decreasing, they remain at high levels from two decades ago with substantial geographic variation.[1] While multiple systems factors drive overuse, individual provider knowledge gaps and attitudes are key contributors, and substantial inter-provider variability exists. Early career physicians may be particularly at risk for low quality care, with studies showing higher mortality compared to more experienced physicians.[2] Certain habits developed during residency training – such as conservative care – follow physicians into unsupervised practice,[3] but it is unclear if this holds for opioid prescribing.

Objectives

To assess variability in opioid prescribing to elderly patients among recent graduates from US emergency medicine (EM), family medicine (FM), and internal medicine (IM) residency programs, and to assess the relative contribution of trainees vs. residency programs on subsequent prescribing variability during unsupervised practice.

Methods

Three retrospective cohorts of residency graduates from 2014-2018 were identified using ACGME-supplied National Provider Identification (NPI) numbers from EM (n = 8,975 residency graduates), FM (n = 17,463), and IM (n = 36,167). In addition, a de-identified program number was provided for each provider. Finally, this data was linked to the 2018 Medicare Part D public use file, which provides provider-level summaries of prescribing to Medicare Part D beneficiaries, representing over 10,730,000 beneficiaries across the three retrospective cohorts. Descriptive statistics were performed using R studio. Opioid claim rate was defined as the percentage of all claims that were opioids; opioid days per claim was defined as the number of days supply per each opioid claim.

Results/Outcomes/Improvements

Overall Medicare Part D claims varied substantially by specialty, with EM physicians submitting a median of 124 claims (IQR 68-199), FM physicians 980 claims (IQR 375-2516), and IM physicians 250 claims (IQR 115-507). Median opioid claim rate was 16% for EM (IQR 12-21%) with a median of 3 days per claim (IQR 3-4); 3% for FM (IQR 2-6%) with 22 days per claim (IQR 16-26); and 3% for IM (IQR 0-6%) with 11 days per claim (IQR 6-23). Analysis at the program level demonstrated similar central values as the provider level analysis, with diminished but clinically significant variability in prescribing between graduates from different programs.

Significance/Implications/Relevance

This work provides preliminary evidence across three large specialties of substantial provider- and program-level variation in opioid prescribing frequency and duration. The etiology of these differences is unclear but may reflect regional or training differences. This essential work is a first step for linking education to patient care outcomes. Ongoing work will incorporate multilevel regression that accounts for beneficiary risk factors to ascertain the relative importance of programs and providers on prescribing patterns. Future work will explore the relationship between deficiencies in ACGME milestone ratings just prior to graduation – particularly in areas relating to low-value prescribing – and opioid prescribing metrics in early practice.

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Poster # 25: Resident Involvement During the Initial Management of Trauma Patients Reduces Mortality

Author(s): Mohamed Elkahly, MD; Vinson Vong, MD; Bhani Chawla-Kondal, MD; Lexie Finer, MS; Napatkamon Ayutyanont, PhD; Nicholas Sheets, MD; Tommy Kim, MD; Ahmed Mahmoud, MD; David Plurad, MD

Institution(s): Riverside Community Hospital/UC Riverside; HCA Healthcare; HCA Healthcare Graduate Medical Education Far West Division

Abstract Type: Research-focused

Background

Trauma patient outcomes are dependent upon initial resuscitation. As graduate medical education programs continue to expand, residents are becoming increasingly more involved in the resuscitation and management of trauma patients. Literature on the effect of introducing residents into the care of the trauma patient population has revealed variable effect on patient outcomes. 1- 6

Objectives

The purpose of this study was to examine the mortality difference and other outcome measures amongst trauma patients with residents involved in the initial management versus those that were managed by attending physicians only without resident involvement.

Methods

Data on 2,644 trauma patients that were admitted to our level I trauma center between July 1st, 2018 and June 30th, 2020 was collected retrospectively. Chi-square, Fisher's tests were used to analyze the outcomes, diagnostics, and interventions using the presence of residents in the initial care of patients as an independent variable. Linear and logistic regression were used to estimate adjusted outcomes, controlling for age, gender, race, Injury Severity Score (ISS) and Charlson Comorbidity Index (CCI).

Results/Outcomes/Improvements

No statistically significant difference was found in mortality between groups with and without resident involvement in the unadjusted data set. However, after adjusting the patient population data for age, sex, race, ISS and CCI, there was a statistically significant mortality benefit shown in the resident-present group (OR, 0.67 [95% CI, 0.45-0.98]). There was also a statistically significant increase in the utilization of medical resources in the resident-present group, including: administration of medications and fluids, performance of certain diagnostic imaging and procedures, ICU admissions and overall lengths of stay.

Significance/Implications/Relevance

Involvement of residents in the initial management of our trauma patient population correlated to decrease in overall mortality and no effect on morbidity. These findings contribute to the growing body of literature that characterizes the positive effect of resident physicians on patient outcomes.

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Poster # 26: A National Survey of the Role of House Staff Association in Graduate Medical Education, Improving the Learning Environment in Teaching Institutions

Author(s): Sugeetha Nithiananthan, MD; Sarah Makadsi, MD; Jeffrey Flynn, PhD; Abdulghani Sankari, MD, PhD; Vijay Mittal, MD

Institution(s): Ascension Providence Hospital

Abstract Type: Research-focused

Background

Residents and Fellows spend several years in postgraduate medical training. Several different factors impact the quality of their training and education. Wellness, diversity, equality, inclusivity, as well as social and financial support significantly affect the quality of Resident and Fellow education. For this reason, many postgraduate medical training institutions have created House Staff Associations (HSA) to serve as an advocate/voice for Residents and Fellows to discuss these factors and ultimately improve the learning environment at their teaching institution.

Objectives

The objective of this study is to compare House Staff involvement with Graduate Medical Education (GME) in institutions with and without HSA's. This comparison will provide insight regarding the impact HSA's have on the learning environment in teaching institutions.

Methods

A questionnaire consisting of 18 questions regarding House Staff involvement with GME in wellness, diversity, equality, inclusivity, social and financial support was sent out to 700 Designated Institutional Officials (DIO). Institutions with less than or equal to 2 ACGME accredited programs were excluded from the study. Demographics and outcomes data were compared using standard statistical methodology.

Results/Outcomes/Improvements

108 DIOs responded. 78(72%) institutions had HSA's, and 30(28%) institutions did not. Most were community hospitals(n=70,64.8%) compared to university hospitals(n=38,35.2%). The average number of House Staff in an institution was 300±324, ranging between 15-1492. 76%(n=59) of institutions with HSA's had House Staff discuss issues related to duty hours compared to 3%(n=1) without(p<0.0001). 31%(n=24) of institutions with HSA's had House Staff discuss educational allowances for books/devices compared to 3%(n=1) of institutions without HSA's(p=0.0018). Most institutions with HSA's(60%,n=47) provided career planning support to House Staff compared to those without HSA's(27%,n=8)(p=0.0024). Institutions with HSA's provided more legal support(53%,n=13) compared to institutions without HSA's(13%,n=4)(p=0.002). Institutions with HSA's(19%,n=15) had greater House Staff involvement in arranging housing/hotel accommodations during the COVID-19 pandemic, opposed to those without(3%,n=1)(p=0.0383).

Significance/Implications/Relevance

Postgraduate medical training institutions with HSAs were noted to have significantly more Resident and Fellow involvement with GME discussing issues regarding wellness, diversity, equality, social and financial support than institutions without an HSA. A significant difference was even seen in House Staff support/involvement during the COVID-19 pandemic. The

learning environment greatly impacts the quality of Resident and Fellow education. HSA's provide Residents and Fellows a platform to discuss issues to improve their learning environment. Based on these findings, further research needs to be conducted regarding the impact HSAs have on Resident and Fellow training and wellness.

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Poster # 27: Amazing & Awesome: Incorporating Positive Case-Based Discussion in Emergency Medicine Residency Curriculum to Improve Learning and Team Morale

Author(s): Jessica Smith, MD; Al'ai Alvarez, MD

Institution(s): Stanford Health Care

Abstract Type: Innovation-focused

Background

Focusing on morbidity and mortality (M&M) negatively impacts physician wellness. While M&M has long been part of residency training, fewer programs dedicate time to highlight above-and-beyond patient care delivery. With this learning gap identified, the Amazing and Awesome (A&A) didactic series provides a solution. While Saves-of-the-Month awards recognize exemplary care, A&A provides a deeper inspection of the cases. Literature review of other residency programs with A&A built into their curriculum focused on reframing the culture of medicine from Safety-I thinking (reacting to errors) to Safety-II thinking (learning from resilient systems and successful interventions). Programs also include learning from high-performance teams and the concept of positive deviance (identifying thriving individuals under challenging environments and what makes them successful). Currently, there is no data available to assess its perceived value by residents in their education or its impact on morale.

Objectives

- Discuss and analyze cases with exemplary team performance using root cause analysis and case reflection.
- Demonstrate the importance of clinical learning opportunities from successful cases in medical education (Safety-II Thinking).
- Value positive clinical cases to boost personal and team morale and wellness.

Methods

At our Emergency Medicine residency program, we incorporated a monthly 30-minute session into our didactic curriculum. Two residents are featured to present the Amazing and Awesome case chosen as a "Save of the Month," focusing on the contributions of the entire healthcare team-physicians, nurses, techs, pharmacist, consultants, etc. Each resident describes the case, highlighting key concepts, critical actions by the care team, and other contributing systems processes that led to the "Save" or above-and-beyond clinical performance. The resident shares the framework as clinical pearls for colleagues to apply in similar challenging clinical scenarios. After six total sessions, a survey was administered to residents to evaluate their perceived value of the Amazing and Awesome didactic series toward their residency education.

Results/Outcomes/Improvements

Respondents: 26/60 residents at one academic residency program completed the survey. Unanimously, 100% of respondents reported that the Amazing and Awesome didactic series was a valuable addition to their residency curriculum. Additionally, 96% of respondents favored incorporating this didactic series into a formal part of the residency curriculum. Comments from the survey consistently highlighted 1) high value placed on learning from co-residents' clinical thought processes in terms of medically or logistically complex cases, and 2) the curriculum boosted residency morale through celebrating the successes of peers and the medical team.

Amazing and Awesome didactic series also provided a great way to learn Quality and Patient Safety concepts.

Significance/Implications/Relevance

The survey results highlight the value of the Amazing and Awesome didactic series in Graduate Medical Education through case-based peer learning and reflection. Amazing and Awesome didactic series also has been shown to boost team morale and resident wellness. These results present the opportunity to incorporate similar didactic curricula into residency programs across numerous specialties to teach Quality and Patient Safety concepts using positive deviant cases instead of incidents of medical harm. During the challenging era of the COVID-19 pandemic, incorporating the Amazing and Awesome didactic series into the Emergency Medicine Residency curriculum provided a much-needed component of positivity and celebration. Amazing and Awesome didactic series has gained a valued, formal spot in our didactic curriculum. Our residency program plans to formalize its content in our residents' conference curriculum.

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Poster # 28: Diversity Curricula in Graduate Medical Education: A Needs Assessment

Author(s): Arlene Chung, MD, MACM, FACEP; Joanna Akinlosotu, MD; Annemarie Cardell, MD; Smruti Desai, DO, MPH, MA; Ridhima Ghei, MD; Evelyn Porter, MD, MS; Chinwe Ogedegbe, MD, MPH

Institution(s): Maimonides Medical Center; Hackensack University Medical Center; University of California, San Francisco

Abstract Type: Research-focused

Background

Diversity can include race, ethnicity, gender, age, sexual orientation, religion, political beliefs, education, physical abilities and disabilities, culture, socioeconomic background, language and military service.^{1,2,3} Lack of diversity in healthcare has been associated with communication breakdown, limited perspectives, lack of role models, lack of future diversity, implicit bias in patient care, and increased healthcare disparities. Increasing diversity can improve patient outcomes. Educational curricula encompassing topics of diversity can improve cultural competency, which is the ability of healthcare providers to meet the unique social, cultural, and linguistic needs of their patients. However, there is little published literature that describes the impact of educational curricula for resident physicians focused on diversity, inclusivity, equity, bias, or discrimination in medical education and healthcare.

Objectives

The primary objective of this study was to review the published literature in order to describe the impact of educational curricula for resident physicians of all specialties focused on diversity, inclusivity, equity, bias, or discrimination in medical education and healthcare. We specifically examined these studies for any evidence of educational outcomes as determined by the Kirkpatrick Model. Our goal was to provide a review of the literature that will inform a general needs assessment for future diversity and inclusion curricula in graduate medical education.

Methods

We applied a published approach to conducting systematic reviews of the medical education literature.⁴ We performed a PubMed search of the literature published prior to August 12, 2021. We applied the medical subject heading (MeSH term) “graduate medical education” to the following search terms: diversity, inclusion, health equity, inequity, antiracism, racism, cultural competency, critical race theory, implicit bias, and microaggressions. References were reviewed to identify any additional studies that may have been missed. Studies were included for final analysis if they described a specific curricular intervention and assessment of their learners. Educational outcomes described in each study were characterized using the Kirkpatrick Model.

Results/Outcomes/Improvements

Our initial search yielded 336 studies. Abstracts were reviewed for relevance and 25 studies were included in our final analysis. Publication dates ranged from 2000 to 2021, with 60% (n=15) of these studies having been published since 2017. Internal Medicine (n=10) residents were the most studied, followed by Family Medicine (n=6), Emergency Medicine (n=3), and General Surgery (n=3) residents. The number of learners participating in each curriculum ranged from 10-181 and the majority were from either a single program (n=14) or multiple programs within a single institution (n=7). Educational methods ranged from online modules to

single workshops to multi-year longitudinal curricula. The majority of studies reported only Kirkpatrick level 1 or 2 outcomes (n=18). A few reported level 3 outcomes using simulation or direct observation (n=5). One study included patient satisfaction surveys, a measure of impact on patient outcomes due to the curricular intervention.

Significance/Implications/Relevance

Despite the recognized importance of promoting diversity, inclusion, and equity in medical education and healthcare, our study revealed that the published literature on curricular interventions still requires work. We found that most specialties have few to no published studies on this important topic. It is possible that many curricula are still in the early stages of development, which would be consistent with the exponential growth in the number of studies we have seen thus far. Like many other curricular interventions, the aspirational goal of positively affecting patient care remains elusive for most studies but we were inspired to find that a few reported impacts on behavior and one on patient experience. We hope that the results of our review will help to inform future curriculum development efforts across all specialties to provide education about inclusivity, equity, bias, and discrimination in medical education and health care.

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Poster # 29: A Pilot Longitudinal Diversity, Equity, and Inclusion (DEI) Curriculum: Resident Experiences and Attitudes towards Implicit Biases and Microaggressions

Author(s): Nancy DeSousa, PhD, MPH; Kristen Solomon, MD; Preethi Rajan, MD; Dona Buchter, MD; Roshan George, MD; Brianna Glover, MD

Institution(s): Emory University School of Medicine

Abstract Type: Innovation-focused

Background

Implicit bias training (IBT) and training on recognizing and addressing microaggressions should be a critical part of residency curricula, as programs work to recruit and retain a diverse workforce that reflects the patients they serve. Its importance is magnified by the ACGME's commitment to diversity, equity and inclusion (DEI) as well as the recent social unrest in the U.S. Department leaders were committed to provide an educational framework for pediatrics residents to address microaggressions both towards patients and amongst team members in the educational and clinical space.

Objectives

The purpose of this project was to evaluate resident attitudes towards implicit biases and microaggressions pre- and post-implementation of focused trainings among 82 Emory pediatrics residents at the Post Graduate PGY-1, PGY-2, and PGY-3 levels to better inform the creation and implementation of future DEI curricula components. Through the development of IBT sessions utilizing clinically tailored case examples and discussion, we ultimately aimed to improve trainees' ability to respond and address microaggressions in both the clinical and educational environments.

Methods

As part of a pilot longitudinal DEI curriculum, leadership from the Office of Multicultural Affairs and the School of Medicine's Chief Diversity Officer co-facilitated two two-hour workshops during core didactic time, the first of which included all residents and the second of which was postgraduate level-specific to allow for more in-depth conversation and build upon knowledge from year to year. Prior to the first session, residents took pre-selected Harvard Implicit Association Tests. The first session included core IBT concepts, biases specific to pediatric care, and small-group discussions facilitated by pediatric faculty members. The second session expanded upon microaggressions and tools for bystander intervention, which included resident-written cases that reflected nuanced real-life experiences. They completed pre- and post-surveys assessing baseline attitudes towards implicit bias and preparedness to recognize and address microaggressions.

Results/Outcomes/Improvements

Thirty-six of the 82 residents completed pre- and post- surveys for the IBT session in which 75% felt very or somewhat comfortable with concepts surrounding IBT beforehand, which increased to 97% post-session. Forty-six of the 82 residents completed pre-surveys for the microaggression and bystander response session. Of the respondents, 72% personally experienced a microaggression based on actual or perceived identity characteristics, 83% witnessed a microaggression towards a medical team member, and 89% witnessed a microaggression towards a patient at some point in their medical training. Prior to the session,

only 9% of those who completed the survey felt extremely or very well prepared to address witnessed microaggressions, which increased to 52% afterwards.

Significance/Implications/Relevance

The majority of residents had personally experienced microaggressions during their medical training directly or indirectly, which they felt ill-prepared to address, highlighting the need to prioritize DEI curriculum efforts. Our data suggest that these workshops improved understanding of implicit biases and microaggressions and increased comfort with addressing biases in the healthcare setting. Building upon this pilot, the pediatrics residency program implemented several DEI educational opportunities during the 2020-2021 academic year, led by the pediatrics Resident Diversity Committee, including curriculum sessions focused on specific populations, including immigrant children and transgender patients, quarterly Health Equity Rounds to highlight pediatric cases in which patient care was impacted by implicit bias, and DEI journal clubs. This innovative curriculum has been sustained during the 2021-2022 academic year thus far and could be used as a model for other residency programs.

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Poster # 30: Applicants' Ability to Assess Fit during the Virtual Interviewing Era: Results from a Large Multi-Disciplinary Survey

Author(s): Jorge Zarate Rodriguez, MD; Connie Gan, MD; Gregory Williams, MA; Tia Drake; Thomas Ciesielski, MD; Dominic Sanford, MD, MPHS; Michael Awad, MD, PhD, FACS

Institution(s): Washington University School of Medicine in St Louis

Abstract Type: Research-focused

Background

The residency recruitment cycle for the Match 2021 was performed virtually due to the COVID-19 pandemic. Little is known about how a virtual interview format may affect applicants' ability to assess self-fit to the programs at which they interview. Preliminary survey data from the NRMP, suggests applicants had difficulty assessing program culture and fit with current residents and faculty. This is concerning since fit has been demonstrated to be key in applicants' decision of which programs to apply to and their respective order on rank order lists (ROL) at the end of the cycle. There have also been concerns that virtual recruitment might disproportionately affect female applicants and underrepresented minorities in medicine since fit for these applicants is tightly linked to perceptions of diversity, which may be more difficult to assess without on-site visits.

Objectives

The main purpose of this study was to investigate how the virtual recruitment cycle affected applicants' ability to assess fit to the programs at which they interview. We sought to identify what factors were most important to the participants of this unprecedented cycle, and whether video-interviewing allowed them to assess those factors easily. We also investigated whether applicant responses and self-perceptions of fit differed by gender and race.

Methods

An IRB-approved, multi-disciplinary, anonymous, online survey was distributed to residency applicants interviewing to 13 different residency programs at a single large academic institution. In accordance with recommendations from the NRMP, the survey opened after ROL certification deadline 3/03/21 and closed on Match Day 3/19/21. Using 5-point Likert-type scales, applicants were asked to rate the importance of various factors to their definition of fit, as well as how easily they were able to assess those same factors through video interviewing. Applicants were also asked to self-assign scores to their perceived fit for their top-ranked program in their ROL using Likert-type scales with anchoring statements (e.g., "I can see myself here" vs. "I cannot see myself here"). Sub-analysis was performed to compare survey responses by applicant gender and race using ANOVA.

Results/Outcomes/Improvements

73 applicants responded to the survey (19.6% response rate). The most important factors to applicants for assessment of fit (how much the program seemed to care about its trainees, how satisfied residents seem with their program, and how well the residents get along with each other) were also the factors with the greatest discrepancy between importance and ease of assessment through video-interviewing. Diversity-related factors (gender diversity of faculty, gender diversity of residents, racial/ethnic diversity of faculty, racial/ethnic diversity of residents, and diversity of patient population) were more important to female applicants compared to

males, and to non-white applicants compared to white applicants. White male applicants self-assigned the highest composite fit scores (17.9, SD 2.0). Compared to white males, female applicants from underrepresented groups in medicine and female applicants from other non-white race groups had lower fit scores ($p < 0.01$, $p = 0.03$).

Significance/Implications/Relevance

There is a marked discrepancy between the most important factors to applicants for assessing self-fit and their ability to assess those factors through video-interviewing. This should be kept in consideration for recruitment programming since video-interviews will remain part of the recruitment process for the foreseeable future. Since female and URM applicants continue to place particular emphasis on diversity-related factors, programs should focus virtual recruitment events around showcasing these elements to ensure successful recruitment and retention of diverse residency classes. While applicants self-assigned high “fit” scores overall, minoritized trainees self-assigned lower fit scores to their best-case scenario in the Match, which should raise concern amongst medical educators and highlights the continued importance of expanding current diversity, equity, and inclusion efforts in academic medicine.

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Poster # 31: Program Director Perspectives on Residency Applicant Evaluation and Selection during the COVID-19 Pandemic: A Mixed-Methods Analysis

Author(s): Keely Reidelberger, MS; Adriana Della Porta, MS; Nicolette Codispoti Codispoti, MS, MPH; Joseph Camarano, MD; Natasha Topolski; Rohan Khazanchi, MPH; Abbey Fingeret, MD; Kelly Caverzagie, MD

Institution(s): University of Nebraska Medical Center; University of Florida College of Medicine; Loyola University Chicago Stritch School of Medicine; LSU Health Shreveport; University of Texas Health Science Center

Abstract Type: Research-focused

Background

The COVID-19 pandemic has led to worldwide shut-downs in concerted efforts to mitigate viral spread and protect public health. In the United States, viral surges as well as personal protective equipment (PPE) and workforce shortages placed a particular strain on the healthcare community. These conditions, in turn, sparked radical changes in undergraduate medical education and forced the residency application processes to shift entirely online during the 2020-2021 cycle.

Objectives

The objective of this study was to assess program director (PD) perspectives on how the virtual application process impacted their evaluation and selection processes and gauge PD support for proposed changes to the residency application process.

Methods

An online survey was emailed to 3,321 PDs of U.S. accredited residency programs using contact information from the Accreditation Council for Graduate Medical Education website. The survey consisted of 14 items, including multiple choice, 5-point Likert scale (significantly less important to significantly more important), yes/no, and free-text. These items assessed demographic information, PD perceptions on importance of applicant factors compared to previous years, and PD support for proposed changes to the residency application process. Descriptive analysis was performed and free-text responses were coded and thematically analyzed.

Results/Outcomes/Improvements

423 survey submissions (response rate 12.9%) were received. PDs reported Letters of Recommendation (LOR), Personal Statement and Medical Student Performance Evaluation (MSPE) were more important during the 2020-2021 cycle compared to previous years with mean ratings of 3.5 ± 0.7 , 3.4 ± 0.7 , and 3.4 ± 0.7 , respectively. Step 2 CS was considered less important with a mean of 2.6 ± 1.0 . Compared to prior years, 55% of PDs gave the same number of applications a thorough review, and 54% increased the number of interviews offered. Regarding changes to the application process, 38% supported application caps, 48% supported interview caps and 40% supported the use of signaling. The most frequent themes from the 118 free-text responses were virtual interviewing (n=53), applicant readiness (n=21) and perceived interest (n=10). Within virtual interviewing, the majority of codes described virtual interviews as negative for programs or applicants (n=30) largely due to decreased interview cancellations.

Significance/Implications/Relevance

During the 2020-2021 residency application cycle, programs modified their applicant evaluation and selection processes to account for limitations posed by a global pandemic. In lieu of in-person interactions, many PDs placed a greater value on LOR, Personal Statements, and MSPE in comparison to previous years. The most common concerns included reduced interview cancellations, potentially leaving fewer openings for less competitive applicants, difficulty assessing applicant interest in a program, and challenges determining applicant readiness for residency. Among the proposed changes to the residency application process, interview caps were most favored by PDs. Residency selection processes must continually adapt to changes in undergraduate medical education and the evolving pandemic. To ensure these processes provide the most benefit to applicants and programs, more research is needed to evaluate residency match processes and outcomes.

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Poster # 32: Emergency Medicine Residency Rotation in Free-Standing Emergency Departments: Trainee Perspectives

Author(s): Jack Finnegan, DO; Akhter Murtaza, MD; Moises Moreno, DO; Ibrahim Hasan, MD

Institution(s): Kendall Regional Medical Center

Abstract Type: Research-focused

Background

Freestanding Emergency Departments (FSEDs) have been steadily increasing in the United States over the past two decades(1,2). Some Emergency Medicine (EM) residencies have incorporated FSED and rural rotations in their clinical curricula in order to prepare graduates for diverse work settings.

Objectives

We sought to evaluate categorical Emergency Medicine (EM) resident and recent graduate perspectives regarding clinical educational experience in FSEDs compared to clinical education in a Tertiary Center.

Methods

35 PGY1-3 categorical EM residents and 12 recent EM graduates from a suburban tertiary care EM program were invited to complete our survey. EM residents and recent EM graduates rated learner satisfaction for both FSED and Tertiary Care Center ED clinical experiences on a ten point scale. The primary outcome of preference was analyzed using the Mann Whitney U test. Secondary outcomes included FSED satisfaction based on PGY level, as well as preferred frequency of FSED shifts and prevalence of FSED shifts for recent graduates.

Results/Outcomes/Improvements

35/35 residents and 10/12 graduates completed and returned the survey. The median satisfaction score for the main ED was 8 (IQR 8-9), whereas the median score for the FSED was 7 (IQR 6-8; p p-value .003). As the level of training increased, opinions of FSED improved; this did not reach statistical significance, but it was not powered to do so either. 0/45 respondents favored zero shifts in the FSED setting, while the majority favored one to two shifts per month-long block. 8 out of 10 graduate respondents report working at least one FSED shift per month in current employment.

Significance/Implications/Relevance

Learner satisfaction for FSED clinical experience was lower than tertiary center clinical experience. However; median satisfaction score was still reasonably high, and given that none of the respondents indicated a preference of zero FSED shifts per block, these shifts are clearly valued by trainees. A large proportion of recent graduates are working within FSEDs on a regular basis; it may be of interest for future surveys to estimate the prevalence of FSED work for new EM graduates across the nation. Further study may be indicated to assess if FSED or similar clinical experiences objectively improve resident education.

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Poster # 33: Emergency Medicine Residency Rotation in Free-Standing Emergency Departments: National Trends in GME

Author(s): Jack Finnegan, DO; Akhter Murtaza, MD; Moises Moreno, DO; Ibrahim Hasan, MD

Institution(s): Kendall Regional Medical Center

Abstract Type: Research-focused

Background

Freestanding Emergency Departments (FSEDs) are stand-alone out-of-hospital facilities with Emergency Department capabilities. Many large hospital networks operate FSEDs associated with larger tertiary care facilities in urban, suburban and rural settings. (1) Some Emergency Medicine (EM) residency program leaders have incorporated FSEDs into the clinical curricula of ACGME EM programs.

Objectives

The primary focus of this research is to establish the prevalence in which FSED facilities are utilized within ACGME EM programs. Further, this research evaluates general characteristics of FSED clinical experiences in GME.

Methods

A brief survey was emailed to EM program directors nationwide using the directory from Council of Emergency Residency Directors from 2019-2020; this list contained nearly all active ACGME EM programs. Over 200 program directors were invited to complete the survey. The survey contained multiple choice questions regarding the inclusion of FSED shifts within EM program curriculums as well as general characteristics of the EM program.

Results/Outcomes/Improvements

Survey requests to EM residency program leadership resulted in 96 completed surveys; 79 responses were from 3-year programs, and 17 responses were from 4-year programs. FSED education was part of the curriculum in 14.6% of responding programs. FSED electives were available at 18.8% of programs. Of the programs with FSED as part of their education (14), most reported FSED experiences limited to 1-2 shifts per EM block (71.4%), with the rest having 3-5 shifts per EM block (28.6%). No programs reported >5 FSED shifts per EM block. 11 out of 14 (78.6%) programs limited FSED shifts to training levels PGY-2 and greater. Of programs reporting FSED utilization, 28.6% of FSED facilities were urban, 54.3% were suburban, and 17.1% were rural.

Significance/Implications/Relevance

The amount of FSED shifts - if any - at EM residency programs throughout the country is very variable. To our knowledge this is the first attempt to estimate the utilization of FSEDs in ACGME EM curricula. Reflections upon national trends in FSED utilization in GME (as well as healthcare market trends) may advise ACGME institution leadership regarding the creation and revision of clinical curricula.

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Poster # 34: Opt-Out Versus Opt-In Therapy Sessions for Residents Increases Resident Use of Ongoing Therapy by 400%

Author(s): Gregory Guldner, MD, MS; Timothy Sisemore, PhD; Deborah Streletz, MD; Alina Popa, MD; Napatkamon Ayutyanont, PhD; Joshua Fuller, PhD; Chandler Broadbent, MA; Jason T. Siegel, PhD

Institution(s): HCA Healthcare National GME Wellness Committee; St. Louis Behavioral Medicine Institute; HCA Healthcare Riverside Family Medicine Residency Program; HCA Healthcare Riverside Internal Medicine Residency Program; HCA Healthcare Graduate Medical Education

Abstract Type: Research-focused

Background

Resident physicians have high rates of depression relative to their age-matched controls. Estimates suggest approximately 1 in 4 residents are at risk for significant depression at any given time. Unfortunately, within medicine in general, and residency in particular, significant barriers to help-seeking prevent residents with depression from making first contact with a mental health provider. Research demonstrates that the more severe depression a resident reports, the less likely they are to ask for help. This inverse relationship between the severity of depression and the likelihood of initiating help seeking calls into question the usual approach of “opt-in” therapy, in which a resident is told, “if you need help, ask for help.”

Objectives

Our study sought to determine if an “opt-out” approach to therapy, in which all residents were booked into sessions and then could choose to keep, cancel or reschedule the appointment, would increase help-seeking among a cohort of residents compared to a standard opt-in approach where individual self-selected residents initiate contact with a therapist.

Methods

All residents in emergency medicine, internal medicine, and family medicine residency programs at a single institution were offered therapy through a standard opt-in approach for 11 months. Then, all of these same residents who did not seek help during that time were switched to an opt-out approach and followed for three months. The opt-in condition consisted of frequent verbal and electronic messages including screen saver images promoting free confidential third-party video-therapy sessions for all residents, conducted by a local psychological services clinic. Residents were given a phone number to call should they opt-in. The opt-out condition consisted of programs scheduling a single therapy session for all residents, which residents could then cancel. Following this session, residents could choose to schedule additional sessions at their discretion. Resident choices regarding their participation in therapy were confidential. This study was approved by the institutional IRB.

Results/Outcomes/Improvements

A total of 114 residents were eligible, representing all members of each residency program: 35 in emergency medicine, 55 in internal medicine, and 24 in family medicine. Over the course of the 11 month opt-in strategy a total of 7 residents (6.1%) self-initiated a call to the psychological services clinic and participated in therapy. These 7 residents were removed from the denominator of the opt-out results. Over the following 3 months using the opt-out strategy 59 of

the remaining 107 (55%) kept their initial individual pre-scheduled appointment. Of these, 23 scheduled additional sessions after the initial opt-out session (17% of 107 residents). Including the 7 residents who initiated therapy during the opt-in period, the overall rate of help-seeking, as defined by at least 2 therapy sessions, increased significantly from 6.1% to 26.3% (McNemar's Test, $p < 0.000001$).

Significance/Implications/Relevance

Our study comparing standard opt-in approaches to encouraging help-seeking with an opt-out approach demonstrated a four fold increase in the use of psychotherapy by resident physicians. This effect does not take into account that the standard opt-in approach lasted nearly three times as long as the opt-out condition. The barriers to help-seeking in the graduate medical education community are numerous including stigma, concerns about confidentiality, time constraints, access to providers, and the inverse relationship between severity of depression and help-seeking initiation. Our opt-out approach likely reduced stigma and lowered other barriers to initiating therapy including anxiety over making the first contact. Our study suggests that far more residents would participate in psychotherapy if programs and institutions would lower barriers to help-seeking to the point that residents obtain initial contact with a therapist.

References

Disclaimer: This research was supported (in whole or in part) by HCA Healthcare and/or an HCA Healthcare affiliated entity. The views expressed in this publication represent those of the author(s) and do not necessarily represent the official views of HCA Healthcare or any of its affiliated entities.

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Poster # 35: Can We Reduce Opioids Being Prescribed in the ED by Implementing an Alternatives to Opioid Program?

Author(s): Mohamad Moussa, MD, FACEP, FAAEM, RDMS; Nicholas Gozza, MD; Chang Woo Park, MD; Elizabeth Jacobs, MD; Tiffany Sayre, CCT; Daniel Kemple, MD; Brian Kaminski, DO

Institution(s): University of Toledo College of Medicine and Life Sciences; ProMedica Health System

Abstract Type: Innovation-focused

Background

Since the rise of the opioid epidemic, nearly 500,000 Americans have died as the result of an opioid overdose from 1999-2019[1]. Patients presenting to the emergency department (ED) with pain related complaints need the opportunity to manage their pain with non-opioid methodology to reduce opiate related morbidity and mortality. Despite EDs continuing to be sources of opioid prescriptions, it has been demonstrated that there is no significant difference in opioid vs non-opioid medication use in pain management [3][4].

Objectives

In collaboration with ProMedica Health Systems, the University of Toledo Emergency Medicine residency program aims to create an enhanced non-narcotic treatment initiative using an "Alternative to Opioid" (ALTO) order set for prescribing and dispensing methods. Residents and faculty members participate in a grant funded project titled Prescribing Alternatives Instead of Narcotics (PAIN) to implement the ALTO program. Our objective is to decrease the number of narcotics administered and prescribed for common pain complaints while providing evidence-based alternatives to opioids; common complaints including headache/migraine, extremity fracture/sprain, low back pain, dental pain, and renal colic. Through ongoing education and training, it is estimated that the number of individuals served through the PAIN program will be 8,000 over the three-year project.

Methods

ALTO education was provided to 25 emergency medicine residents and 12 core faculty members on the benefits of prescribing ALTO medications in the ED. An ALTO orderset was created in the electronic medical record allowing prescribers access to evidence-based non-narcotic pain management medications to treat common pain complaints. New techniques have also been instituted including low-dose ketamine, trigger point injections, ultrasound guided regional anesthesia and lidocaine nerve blocks. Dispensing of ALTO medications vs opioids were compared both in the department and at discharge. Additionally, we evaluated the utilization of ALTO medications before escalating to opioids.

Results/Outcomes/Improvements

Opioid administrations in the ED have declined by 18% between 2/8/21 - 8/8/21. Opioid prescriptions post-discharge has also decreased by 11% six months after launch (2/8/21 – 8/8/21 vs 8/7/20 – 2/7/21) with a 20% increase in ALTOs prescriptions after resident education (n=3182 vs n=3824). A total of 51 alternative medications have been added to the ALTO order sets with a continued average trend of 47% usage.

Significance/Implications/Relevance

The University of Toledo Emergency Medicine Residency Program focuses on providing a fully developed educational program that offers enhanced provider training and competency for evidence-based pain management treatment without the use of narcotics. Every EM resident should have a baseline knowledge and competency in 1) fundamentals of addiction; 2) modern treatment of common related pain conditions without the use of an opioid; and 3) providing alternative non-pharmacological treatments that are evidence-based and promote patient engagement with improved outcomes.

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Poster # 36: USMLE Step 1 and Step 2 CK as Indicators of Resident Performance: A Systematic Review

Author(s): Conner Lombardi; Neejad Chidiac; Benjamin Record, MD, MBA Candidate; Jeremy Laukka, PhD

Institution(s): The University of Toledo College of Medicine and Life Sciences

Abstract Type: Research-focused

Background

For the last two decades, the USMLE Step 1 and Step 2 Clinical Knowledge (CK) examinations have been two of the most important factors for residency program directors' consideration of medical students applying for residency [1-4]. Step 1 has incredible influence on the recruitment and selection of residents, with 94% of all residency programs indicating Step 1 is a factor in selecting students for an interview and 68% of programs requiring a minimum target score [5,6]. The significant weight placed on Step 1 and Step 2 CK has students investing equivalent effort in their preparation for both tests, which in turn has shown to negatively impact their psychological well-being [7]. In response to this mounting weight, the National Board of Medical Examiners (NBME) and Federation of State Medical Boards (FSMB) announced a paradigm shift moving USMLE Step 1 from a numerical score to a pass/fail examination while Step 2 CK and Step 3 will remain numerically scored [8].

Objectives

The objectives of this systematic review were to (1) determine the scope of literature measuring USMLE Step 1 and Step 2 CK as predictors or indicators of quality resident performance across all medical specialties and (2) better understand the ability of Step 1 and Step 2 CK to predict quality resident performance, stratified by ACGME specialties, based on available literature.

Methods

This systematic review was designed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) [16]. The designed search strategy investigated three databases. The original search strategy surveyed MEDLINE and was adapted to survey Cochrane Library and Embase. After completion of the search, irrelevant studies were excluded, and duplicates were removed. Titles and abstracts of the remaining studies were screened by two authors to determine eligibility. A study was deemed eligible if it provided all three of the following relevant information: (a.) Step 1 or Step 2 CK as indicators for (b.) resident outcomes in (c.) any ACGME accredited specialty training program. Both authors compared individually determined initial eligibility based on titles and abstracts and discussed any disagreements in-depth before forming a conclusion. Full texts of each eligible article were examined before final determination of inclusion.

Results/Outcomes/Improvements

A total of 1803 articles were screened from three separate databases. After excluding duplicates, irrelevant sources, and unoriginal research, 135 potential studies were identified from the titles and abstracts. A final screening, which included a full text analysis, was conducted to determine eligibility. The 92 included studies were stratified by specialty, with Surgery (21.7% [20/92]), Emergency Medicine (13.0% [12/92]), Internal Medicine (10.9% [10/92]), and Orthopedic Surgery (8.7% [8/92]) being the most common. Common resident

performance measures included ITE scores, board certification, ACGME milestone ratings, and program director evaluations. With some exceptions, Step 1 and Step 2 CK scores were predictive for certain outcome measures, particularly those related to standardized testing (e.g., Board exams, ITE scores). Results were mixed with respect to other more subjective outcome measures (e.g., ACGME milestone ratings, program director evaluations).

Significance/Implications/Relevance

There have been various studies on how Step 1 and Step 2 CK scores correlate with resident performance, but these studies were specialty-specific and varied significantly by performance measurement. This scoping review is the first to our knowledge considering the use of Step 1 and Step 2 CK as predictors of multivariate resident performance across all ACGME accredited specialties. The results of this study have merit and should be contemplated in the context of the NBME's decision to make Step 1 a pass/fail examination. Considering the immense weight placed on medical students' USMLE Step 1 and Step 2 CK success, the fact that only 93 studies of varying capacity and result have been performed over the three-decade lifetime of these tests is questionable at best. Further studies are imperative to discern the utility of Step 1 and Step 2 CK as predictors of resident performance and as tools for resident recruitment and selection.

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Poster # 37: Knowledge Gaps in Residents Regarding Pregnancy and Fertility in Training**Author(s):** Christine Van Horn, MD, MS; Haley Schachter; Jennifer Yates, MD**Institution(s):** University of Massachusetts Medical School**Abstract Type:** Research-focused**Background**

Medicine has evolved over the last several decades with more and more female physicians, many of whom spend their peak childbearing years in residency training. Data suggests there are issues with maternity leave policies and institutional barriers (such as stigma, schedule limitations, and call burden) that hinder childbearing in training. As well, there is data suggesting potential safety concerns in pregnancy (such as radiation safety and pregnancy complications associated with prolonged work hours) that may not be well known by trainees. There is also no data regarding awareness of cryopreservation options among trainees and limited data regarding medical students' attitudes regarding pregnancy in their future training.

Objectives

Our project seeks to highlight gaps in knowledge and shifts in attitudes regarding childbearing and fertility preservation in training. The ultimate goal is to create a curriculum to address these knowledge gaps in medical trainees (undergraduate and postgraduate) and improve the culture of medicine regarding family planning in training. Preliminary data is available for residents and medical students with further recruitment underway.

Methods

We distributed an IRB-approved survey of medical students, residents, and fellows at a single tertiary academic medical center over 4 weeks in September 2021. Survey questions were based on the published study (ref 3) regarding pregnancy history and attitudes regarding pregnancy in training. Certain questions were tailored to the level of training and made resident- or medical student-specific. Additional questions regarding attitudes on the subject and questions derived from primary literature were also included. Knowledge questions were presented with True/False/Unsure and multiple choice answer options. Preliminary descriptive analysis of collected responses was done in REDCap and Excel. Affirmative answers for attitude questions were generated from combining the 'Strongly Agree' and 'Agree Somewhat' answers on the Likert scale used for initial analysis.

Results/Outcomes/Improvements

154 respondents completed the survey (141 residents). 83% of surveys were complete. Most of the respondents were PGY1-3 residents, and 24% were in Internal Medicine (highest percentage department). 54% were between 25 and 30 years old, and 55% of were married. 66% were female, and 76% had 0 children. 65% of those who had children had their first as a resident or fellow. 73% of residents felt their program supported having children in training. 56% felt some degree of guilt when thinking about having children in residency, and 51% were planning on delaying childbearing until afterward. 64% showed some concern regarding declining fertility while in training. With the questions on published literature regarding infertility, ART/cryopreservation, radiation safety, and pregnancy in medicine, the majority of respondents were unsure of the correct answer or had no knowledge; areas with majority correct answers focused on questions regarding negative aspects (such as known bias).

Significance/Implications/Relevance

Our preliminary data suggests that residents are unfamiliar with documented research and issues related to family planning in training (especially radiation safety, some aspects of pregnancy complications, and aspects of cryopreservation). The respondents were mainly young but concerned about future fertility. While training departments may be perceived as accommodating of childbearing in training, residents still feel guilt regarding the impact on their program if they choose to have children during training. This highlights an area for intervention with further education of trainees as well as infrastructural changes to increase support for trainees' current and future reproductive planning.

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Poster # 38: Fostering Community and Supporting Program Leadership through a Professional Development Series During the COVID-19 Pandemic in the Epicenter

Author(s): Sultana Mustafa, EdD, MA; Lauren De La Cruz, MBA; Amberle Cusmano, MA, MHA; Lauren Wasson, MD, MPH; Alyson Fox, MD, MSCE

Institution(s): NewYork–Presbyterian Hospital

Abstract Type: Innovation-focused

Background

The COVID-19 pandemic presented myriad challenges to the medical community beyond the daily challenges of providing clinical care in unforeseen circumstances. Teaching hospitals were charged with maintaining the academic rigor of a training hospital environment, and training programs were responsible for leading educational programs in the midst of two public health crises: COVID and inequity. Additionally, the increasing emphasis on virtual interactions affected curricula, onboarding, recruiting and community-building, support for physician well-being, and the ways programs can work together to learn and care for patients. GME programs had to alter their core educational rubric to meet competing demands of social distancing while providing core competencies, new competencies, and faculty development required by the ACGME(1-3) and necessitated by crisis-driven challenges. The changing context prompted design of professional development webinars and tools to support GME program leaders.

Objectives

To design and implement a multi-disciplinary, multisite professional development series for Program Directors (PDs), Associate Program Directors (APDs), and Program Coordinators (PCs) to support them as leaders in crisis and changing learning environments, provide tools and resources, and build community as the institution recovers from the peak of the COVID-19 pandemic. We report the initial outcomes of this series.

Methods

We developed specific offerings and resources aimed at cultivating essential competencies in the participants: Leadership and Teamwork, Virtual Education, Virtual Recruiting, Well-being, and Diversity and Inclusion. The 20 webinars were led by internal physician faculty and external invited experts and offered to leadership from approximately 150 GME programs. The live webinars were recorded and made available to the target audience. This initiative also consisted of facilitated peer support groups for PDs. The recorded webinars, presentation slides, and tools (e.g. conducting a virtual interview day, navigating a crisis) related to the covered topics were assembled into a resource toolkit made available through a cloud-based platform for continued on-demand access and reference. PCs were invited to select sessions relevant to their areas of work including Virtual Education, Virtual Recruitment, and Diversity and Inclusion.

Results/Outcomes/Improvements

A systematic evaluation of the professional development series was conducted whereby participants of both the live webinars and recordings responded to an online questionnaire of closed- and open-ended questions. Most sessions were well attended with an average range of 50 to 70 live webinar participants. The feedback from a sample of the webinar participants has been generally positive. Of the 43 live and asynchronous participants who completed the evaluation, 100% said that the topic areas were relevant to issues facing their programs, and

100% recommended that the topics be offered annually. PD and PC respondents provided illustrative examples of outcomes that ranged from developing expertise in virtual recruitment, benefitting from networking with other PDs about useful tips/tricks, increased trainee engagement in video education given new implemented approaches to being appreciative of the learning opportunities during COVID-19.

Significance/Implications/Relevance

The professional development series brought together PDs, APDs, and PCs from various specialties and sites and supported them during a pandemic that upended the traditional graduate medical education environment. Virtually reconnecting with colleagues provided much-needed educational, technical, and emotional support and skill-building to help PDs, APD, and PCs navigate this challenging time. Integration of technology in the delivery and dissemination of the curriculum improved access to it, when it was critical to accomplish wide reach for maintaining community and conveying new necessary skills for educational leadership and administration during public health crises. Overall, the series demonstrated the value of convening virtually to support and professionally develop graduate medical education leadership and can serve as a model for other large GME communities.

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Poster # 39: Impact of COVID-19 on Graduate Medical Education and Building a Community through Cross-institutional Didactics Forum

Author(s): Phyu Thin Naing, MBBS; Cynthia Pan, MD; Agatha Parks-Savage, EdD, RN, LPC; Linda Archer, PhD; Lilia Wilson, MBA, MPM; Teresa Smith, MD, MEd

Institution(s): New York-Presbyterian Queens; Eastern Virginia Medical School; Midwestern University GME Consortium; State University of New York, Downstate

Abstract Type: Innovation-focused

Background

Due to COVID-19 pandemic, shelter-in-place orders enacted by multiple public health organizations demanded that all educational institutions eliminate large in-person gatherings [1]. ACGME convened a weekly virtual national forum for designated institutional officials (DIOs) to share information and explore common challenges & potential solutions around pandemic. Through this forum, several sponsoring institutions (SIs) and training programs across the US explored opportunities to mitigate isolation from lock downs & social distancing. Connected through ACGME breakout sessions, 4 DIOs formed a cross-institutional didactic forum. The DIOs are from Eastern Virginia Medical School (VA), New York-Presbyterian Queens (NY), Midwestern University GME Consortium (AZ), and SUNY Downstate (NY). The goal is to grow inter-institutional network, collaborate on scholarly activity, faculty development, recruiting, and create visiting scholar opportunities using a virtual platform.

Objectives

1. Discuss how to leverage national meetings to network and create opportunities for innovative, collaborative projects across different institutions.
2. Describe the benefits and challenges with virtual cross-institutional didactics
3. Describe the perception of impact of COVID-19 on residents' and fellows' education
4. Describe areas/topics of interest for cross-institutional didactics/learnings

Methods

A brief online survey was administered at all 4 sites to gather topics/ideas for a kick-off virtual event, followed by another survey to assess trainees' educational experiences during the pandemic. All the survey respondents were deidentified. This study was exempted from IRB at the institutions involved. The data was collected and analyzed in Qualtrics. The kick-off event was a 1-hour panel discussion, featuring different program faculty members and residents discussing the impact of the pandemic and lessons learned. The survey link also remained open to the respondents following the kick-off panel in order to collect data that will help plan for future meetings. This innovative cross-institutional didactic forum had its first kick-off session on June 2, 2021.

Results/Outcomes/Improvements

A total of 55 respondents filled out the survey and 65% was comprised of residents, 2% fellows and the rest were faculty members. More than 30 of the respondents picked "Resident Well-being" and "Impact on Educational Curriculum" as desired topics for discussion. Majority of respondents (84%) stated they would attend cross-institutional didactics series and 76% stated they would watch recorded videos. For the second survey to assess the impact of COVID-19 on education, there were 19 responses with 47% being US MD/DO, 29% US citizen international

medical graduates (IMGs) and 23% non-US IMGs. Among all, 67% was from internal medicine and 50% was PGY3. Interestingly, 93% was reportedly exposed to COVID and 31% was quarantined; 50% worked more days/week on average than regular schedule; at least 75% reported pandemic has negatively impacted education; 69% reported there was overall reduction in face-to-face education time and alternative virtual teaching methods weren't able to make up.

Significance/Implications/Relevance

Although the pandemic has taken away certain opportunities for networking and educational experiences, the increased utilization of virtual platforms as a result of the COVID-19 pandemic has brought convenience in connecting with different institutions across the U.S. We believe that perspectives, ideas and strategies shared across different institutions may help tackle challenges around COVID-19 pandemic and promote trainees' well-being during stressful times. Through virtual platforms, we may be able to expand the inter-institutional network, collaborate on scholarly activities, faculty development, recruiting, and create visiting scholar opportunities. Therefore, we encourage institutions across the country to take advantage of the virtual platforms to collaborate and find solutions for challenges together.

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Poster # 40: Identifying Positive and Negative Factors That Affect the Promotion of Clinical Faculty at the Wayne State University School of Medicine: Does Gender Matter?

Author(s): R. Brent Stansfield, PhD; Robert Ehrman, MD; Heidi Kenaga, PhD; John Collins, MD; Marissa Matthews, MD; Yang Liu, MD; Anne Messman, MD

Institution(s): Wayne State University; Wayne State University School of Medicine

Abstract Type: Research-focused

Background

Historically, many women in academic medicine have fallen victim to a “leaky pipeline” which favors men in professional advancement, resulting in their underrepresentation in leadership positions. This underrepresentation is itself a barrier to fixing the leak, since institutional action is necessary to bridge the gender gap, and leaders unfamiliar with those career barriers disproportionately faced by women are unlikely to lead such action. The barriers are many: work/life balance due to inequitable expectations of women at home, stereotypical perceptions of women’s fitness for some types of work, gendered assumptions about communication styles, biased judgement of clinical skills, etc. These barriers impact female medical school faculty’s ability to obtain funding, publish, collaborate with peers, and receive proper teaching reviews or job evaluations and thus unfairly impede women’s academic promotion.

Objectives

We surveyed academic faculty who had been promoted to associate or full professor at our SOM to identify what aspects of institutional support were most helpful and what aspects of their work and life experiences they considered to be the biggest obstacles to their attainment of promotion. By understanding women’s perception of the process compared to men’s, the largest gender gaps and the most effective interventions for supporting women’s clinical academic career advancement can be better identified.

Methods

We distributed via email an anonymous survey asking demographic, quantitative, and qualitative questions about career advancement to all nonvoluntary, clinically active academic faculty at the rank of associate or full professor. Only faculty who consented to having their responses analyzed and who had obtained their most recent promotion at our institution were included in the analysis. We analyzed 2 sets of quantitative responses: (a) ratings from 0 (no contribution at all) to 4 (very important contribution) of 13 institutional career support systems and (b) rankings of the strongest 4 from a list of 8 barriers. Mean ratings of institutional support systems were compared between men and women respondents using t-tests with Welch correction. Barrier rankings were summarized for men and women by the percentage of respondents who listed each in their top 3 and its mean ranking. IRB approval was obtained for this study.

Results/Outcomes/Improvements

There were 73 responses from about 300 eligible faculty, 58 (79%) of whom met the criteria for analysis. Applying this exclusion rate to the eligible faculty population yielded about a 24% response rate of the target population. Women reported “Gender-specific networking” more helpful (mean 1.04) than men (mean 0.31) ($t[38.8] = -2.62, p = 0.0126$). Men reported “Protection from clinical duties by department” (mean = 1.50) more helpful than did women

(mean = 0.72) ($t[52.9] = 2.13, p = 0.0376$) and “Having a stay-at-home partner” (mean 1.66) more helpful than did women (mean = 0.50) ($t[51.0] = 3.23, p = 0.002$). Among ranked obstacles, 74% of women ranked “Lack of interest and encouragement from institutional or departmental leaders” in the top 3 (mean ranking = 2.21) vs. 39% of men (mean = 3.42) and 67% of women also ranked “Lack of tangible commitment from institutional or departmental leadership (e.g. protected time)” (mean = 2.25) vs. 45% of men (mean = 2.91).

Significance/Implications/Relevance

Our main finding was that women faculty reported less support from their program and institution, particularly from institutional leadership and with regard to protected time. Further, women were more likely to rate gender-specific networking higher than men (it is unclear whether men explicitly engage in gender-specific networking) and less likely to rate support from a stay-at-home partner as beneficial to their career. While this study involves a small sample from a single institution, our findings are commensurate with the literature that a “leaky pipeline” creates an unrepresentative leadership which poses career barriers disproportionately faced by women faculty. Institutions should employ measures to “plug the leaks” and thus ensure greater equity in the career support they give all faculty, regardless of gender.

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Poster # 41: What Sorts of Residents Get What Sorts of Ratings? An Analysis of Quantitative Ratings of Resident Competencies and Descriptive Adjectives**Author(s):** R. Brent Stansfield, PhD; Andrea Milne, MD**Institution(s):** Wayne State University; Ascension Providence Rochester Hospital**Abstract Type:** Research-focused**Background**

Resident evaluation by a Clinical Competency Committee (CCC) must summarize performance assessments made by many stakeholders, including faculty, attendings, nurses, peers, patients, and students. The easiest way to combine such assessments is to use quantitative ratings such as Likert-like rating scales or true/false judgements. While such quantitative ratings are valuable, they often suffer from ceiling effects, low reliability, and untestable validity. More useful are qualitative comments but these come at a cost of rater time, reporting bias, and are not so easily combined or summarized in aggregate. An approach that combines the standardization of quantitative ratings with more qualitative information may help CCCs formulate more accurate conclusions about resident performance.

Objectives

The Family Medicine program at the Wayne State University School of Medicine adopted a resident evaluation form which included alongside quantitative rating scale items a list of adjectives with the instruction for raters to select four that describe the resident. This allowed an analysis of rating responses to identify which perceived resident qualities were associated with raters' quantitative assessments. Understanding these associations can help CCCs and program leadership better contextualize and understand the meaning of raters' use of quantitative scales when making competency judgements of resident performance.

Methods

The rating form was published in the residency learning management system and used by faculty and attendings to assess all residents for 4 residency academic years (July through June, 2017-18 through 2020-21). The frequency of each adjective's use was computed from the data, and the most frequently used were included in further analysis. Mean ratings of Overall and milestones competencies (Medical Knowledge, Patient Care, Professionalism, Practice-Based Learning and Improvement, and Communication Skills) were computed across raters for each resident, and the percentage of each of the 17 most-used adjectives was computed for each resident. A linear regression of each mean rating was conducted using the main effect of adjective percentages to determine if the adjectives were related to the quantitative ratings (omnibus R-squared of the model) and which adjectives were significantly related to which ratings (post-hoc tests of main effects within the model).

Results/Outcomes/Improvements

The dataset included 742 ratings of 55 unique residents by 10 unique raters. Positive adjectives were most used (Capable, Logical, Organized, Mature, and Resourceful were each used in over 30% of responses). Seventeen adjectives were used on 10% of the rating forms or more and so were included in the analysis. These 17 explained a significant amount of variance for Overall (R-squared = .13), and all competency ratings (R-squared from .24 to .28). Adjectives showed different patterns of association with ratings. Some examples: residents with high Overall ratings

were more often described as Organized but less often as Resourceful and Confident. Other patterns were seen for Medical Knowledge (more often Clear-thinking, Organized, and Efficient; less often Considerate and Friendly), Communication Skills (more often Clear-thinking and Organized, less often Cooperative), and Professionalism (more often Clear-thinking and Tactful, less often Cooperative and Friendly), etc.

Significance/Implications/Relevance

Faculty and attendings' higher quantitative ratings of residents' competencies tended to be associated with the perceived positive qualities of Clear-thinking, Organized, and Efficient. Some positive qualities such as Cooperative, Considerate, and Friendly were negatively associated with quantitative ratings. These findings reveal behavioral preferences that faculty and attending raters prefer in the residents they rate which may not be intuitive to administrators and program leadership tasked with evaluating residents' strengths and weaknesses in CCC or other assessment situations. Care must always be taken when interpreting quantitative ratings, even when rating criteria appear straightforward. More initiatives to elicit and understand qualitative information is crucial for assessors to understand how residents perform in their work environment.

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Poster # 42: Wellness Vulnerabilities of Medical Resident Interns: COVID Impacts Self-Care and Perceived Institutional Support

Author(s): R. Brent Stansfield, PhD; Heidi Kenaga, PhD; Elise Drake, PhD; Denise Burgess, RN; Sharon Hall, MSM; Tsveti Markova, MD

Institution(s): Wayne State University; Wayne State University School of Medicine; Charleston Area Medical Center; Medical University of South Carolina

Abstract Type: Research-focused

Background

The physical, emotional and cognitive demands of residency training are taxing, and this period of time in a physician's life has been linked to increased rates of burnout, suicidal thoughts, and depression. There is evidence that when residents are unwell, this negatively impacts the care they provide to patients, and clinical errors are increased. Evidence in the literature suggests that first-year residents (interns) show the highest rates of burnout. The COVID-19 pandemic in 2020 was a stressful medical crisis which revealed vulnerabilities in the medical system. Some residency training programs were impacted more than others, depending on the program specialty and geographic location.

Objectives

We sought to estimate how COVID-19's impact on the clinical environment affected resident wellness by comparing two institutions, Wayne State University School of Medicine in Detroit, Michigan (WSU) and Charleston Area Medical Center in Charleston, West Virginia (CAMC), which experienced their regional first wave of COVID-19 patients at different times. Both institutions train residents who had direct COVID patient duties and those who did not. Both institutions used the Resident Wellness Scale (RWS) at the same timepoints, allowing direct comparison of resident wellness scores by timepoint, institution, training year, and direct COVID care duties.

Methods

The RWS is a 10-item validated instrument that measures 4 dissociable aspects of resident wellness: self care, personal involvement, tragedy support, and meaningful work. The RWS was administered at both institutions anonymously through a custom-built web interface that asked respondents for their institution, training year, gender, and program specialty. We used multiple regression to analyze resident wellness subscores from responses at three timepoints: pre-COVID (fall 2019), early-COVID (spring/summer 2020), and late-COVID (fall 2020). The regression model tested a full factorial model of timepoint, institution (WSU or CAMC), training year (intern or senior), and direct responsibility for COVID patient care based on program (COVID or non-COVID). Post-hoc t-tests were used to test group differences in models with significant omnibus effects. This research was deemed exempt from review by IRB.

Results/Outcomes/Improvements

Our analysis included 730 responses (406 from WSU and 324 from CAMC) interns (N = 268). Programs with direct COVID patient care duties (Internal Medicine, Internal Medicine: Psych, Family Medicine, Emergency Medicine, Transitional Year, N = 369) were compared to those without (Dermatology, General Surgery, OB/GYN, Behavioral Medicine, and others, N = 361). Responses from residents with COVID patient care responsibilities showed lower self-care

scores (interaction of timepoint by COVID care responsibility by intern year, $F(1,677) = 3.08$, $p < .05$) and institutional support scores ($F(1,678) = 3.12$, $p < .05$) at times when the institution was most heavily impacted (early-COVID for WSU and late-COVID for CAMC). Overall, interns showed lower Personal Involvement scores (main effect $F(1,674) = 8.81$). The effect was not seen in senior residents and not seen for meaningful work or social support subscales of the RWS.

Significance/Implications/Relevance

Interns' Self Care and Tragedy Support dropped about .5 rating points on the 5-point frequency scale of the RWS, which indicates a medium effect size ($d = .52$ to $d = .65$) suggesting a noticeable impact on wellness. Seniors did not show this effect, nor did residents without COVID care responsibilities, suggesting the effect was not due to residency training per se nor the COVID pandemic generally. These results demonstrate a particular wellness vulnerability in the intern year and suggest that interns need to be provided with additional support to help them feel more engaged in their work and during times of peak clinical stress. Interns appear to require more guidance on institutional resources for improving their self-care and dealing with workplace tragedy.

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Poster # 43: Planning, Assisting, And Monitoring - Updating To Milestone 2.0 In A Large Institution

Author(s): Thang Huynh-Ngo, MBA; Ann Dohn, MA; Jie Li, PhD; Lizzie Babalola, PhD

Institution(s): Stanford Health Care

Abstract Type: Innovation-focused

Background

ACGME's milestone 2.0 aims to reduce the complexity by shortening subcompetencies from 1.0 and being overall easier to interpret & assess (1). Once the new milestones are active, Stanford Health Care and other large institutions have the challenge of monitoring residencies and fellowships transition to Milestone 2.0, specifically within the institution's Residency Management Software (RMS). GME's bandwidth to assist programs incorporate milestone 2.0 is a constraint to consider. To have a successful transition, GME needs to approach the milestone 2.0 updating process in a thorough and collaborative approach.

Objectives

The milestone updating project goal is to ensure all milestone 2.0 eligible programs updated and utilized the new core competencies in our residency management system (RMS) by July 1, 2021. Furthermore, our institution did a retrospective review on programs that already should have used milestone 2.0 and work with any that have not updated yet.

Methods

GME leaders first identified eligible programs for milestone 2.0 and applied the readiness for change framework to the milestone updating project. The framework's key factors required institutional plan for: task demand, resource availability, and situational factors (2). Focusing on the former two, GME met with our RMS support team to fully understand the RMS update process and provided assistance & resources to our key stakeholders. For update resources, GME created a milestone update checklist, RMS update guide, and held meetings (direct and workshops) with programs. Furthermore, GME invited 2 core residencies to share their current use of milestone 2.0 to share best practices and facilitate discussion on how programs can best use milestone 2.0 in their trainee evaluation. Communication was a core focus and GME consistently communicated so PDs and PCs understood what was expected of their role and contribution towards the milestone update process.

Results/Outcomes/Improvements

Majority of the eligible programs, 29 of 47 programs (61%), successfully updated to milestone 2.0 within the RMS starting July 1, 2021. Additionally, 3 out of 9 programs that should have used milestone 2.0 (milestone 2.0 activation date before 7/1/2021) updated their milestones within the RMS. By recognizing the key stakeholders, GME leadership focused on knowing who to contact and what resources to provide in the updating process. GME's milestone update guide was essential to the updating process as it provided technical knowledge on updating in the RMS and the milestone update checklist provided a linear process flow on planning, mapping, and distributing milestone 2.0 within the program.

Significance/Implications/Relevance

While a significant majority of programs updated to milestone 2.0, there were several learned lessons. Timing and providing sufficient time was a key factor for success. While there isn't a clear recommendation from GME, programs should consider initiating the milestone update plan at least three months in advance. This provides buffer time for programs to update their RMS milestone evaluation form. Another component for success is fully understanding the technical knowledge of updating to milestone 2.0 in the institution's residency management software. Different software has different protocol; institutions should meet with their RMS support team for consults and update recommendation. Updating to milestone 2.0 continues to be a going monitoring and intervention for the remaining programs. Regardless, GME's deliberate and collaborative approach ensures the programs that did update better utilize their new milestones for trainee evaluation.

References

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Poster # 44: “If at First You Don’t Succeed”: Developing a GME-Wide Process to Aid Crisis Management for COVID-19 Surge Care**Author(s):** Megan Overgaard; Mitchell Goldman, MD; Michelle Howenstine, MD**Institution(s):** Indiana University School of Medicine**Abstract Type:** Innovation-focused**Background**

The COVID-19 pandemic has placed unprecedented pressures on hospitals as well as residency and fellowship programs due to surges in acute patient care needs. These care needs have developed with short lead times and have been of unpredictable duration and magnitude. Clinical and education assignments for residents and fellows are often created months in advance, are designed to meet ACGME and Specialty Board requirements, and leave limited flexibility to quickly adapt training schedules to assist with emerging needs while still maintaining training requirement compliance and learner well-being. Due to the unforeseen demands generated by the pandemic, we were faced with the challenge of executing novel and agile redeployment strategies while balancing the many needs of our learners. Prior to the onset of the pandemic, no comprehensive mechanism existed for assessing deployment capabilities of our 1300+ residents and fellows across 110+ programs.

Objectives

The COVID-19 pandemic has placed unprecedented pressures on hospitals as well as residency and fellowship programs due to surges in acute patient care needs. These care needs have developed with short lead times and have been of unpredictable duration and magnitude. Clinical and education assignments for residents and fellows are often created months in advance, are designed to meet ACGME and Specialty Board requirements, and leave limited flexibility to quickly adapt training schedules to assist with emerging needs while still maintaining training requirement compliance and learner well-being. Due to the unforeseen demands generated by the pandemic, we were faced with the challenge of executing novel and agile redeployment strategies while balancing the many needs of our learners. Prior to the onset of the pandemic, no comprehensive mechanism existed for assessing deployment capabilities of our 1300+ residents and fellows across 110+ programs.

Methods

Through a series of iterative improvement cycles, we developed a Web database enabling 110+ Program Directors to quickly inventory the number of trainees likely available for surge care in each of 9 areas (Anesthesia, Surgery, Medicine – Adult or Pediatric, Emergency Medicine – Adult or Pediatric, and Critical Care – Adult, Pediatric or Neonatal). PDs assessed each trainee on a discrete 4-level scale ranging from no experience to capable of practicing independently in each respective area. Programs could also exclude specific trainees from redeployment for medical, educational, or logistical reasons. Automated workflows fed this data into a sortable spreadsheet, which simultaneously provided high-level overviews of the quantity and level of support available as well as individual-level availability and skillsets. This information was available for affiliate hospital leadership to access or download at any time for incorporation into existing hospital surge planning efforts.

Results/Outcomes/Improvements

With each iteration of this inventory, the quality of data and the number of responses increased. When first surveyed in April of 2020, 40 Program Directors designated 472 trainees as deployable. A total of 38 trainees were identified as capable of independently supporting at least one area. Spreadsheet design, survey dissemination, and manual data compilation was a 2+ week process. During the fourth iteration of the inventory in September 2021, 75 Program Directors responded, accounting for 1,032 of 1,195 Indianapolis-area trainees. 803 were indicated as deployable, with 238 able to independently support in at least one area. Further, the September inventory database was built in roughly one day, and nearly 600 responses were received within the first 48 hours alone. Having this volume of information available to our affiliate hospitals during the COVID-19 Delta surge facilitated the rapid opening of additional ICU beds within a week of inventory distribution.

Significance/Implications/Relevance

The development and refinement of this deployment inventory has enabled our institution to launch a rapid, dynamic response to the quickly changing needs presented by the COVID-19 pandemic. The employment of iterative improvement allowed us to leverage feedback from hospital affiliate leadership, training programs, and our learners about the most valuable data to collect and the most accessible format for gathering and housing this data. Centralizing and automating this information strengthened the pandemic response of our affiliate network by significantly streamlining stakeholder communication, maximizing transparency, and aiding in rapid mobilization in support of critical, time-sensitive needs. This model is now a key feature of our annual crisis management strategy and will ensure our capability to mobilize rapidly in the future with minimal delay. This process could easily be adapted to serve the needs of similar large institutions as a disaster preparedness measure.

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Poster # 45: Assessing Barriers to Point-of-Care Ultrasound in the Surgical Setting: A Medical Education Perspective**Author(s):** Michaela Pesce; Emily Faulks, MD**Institution(s):** Virginia Tech Carilion School of Medicine**Abstract Type:** Research-focused**Background**

Point-of-care ultrasound (POCUS) has become a critically important tool in the field of surgery, both in the guidance of bedside procedures and in the clinical assessment of patients that may require surgical intervention [1]. POCUS can be used as a diagnostic tool, alone or in conjunction with other imaging modalities, to help shorten time to diagnosis, allow for rapid intervention, improve clinical outcomes, and shorten length of stay for surgical patients[2]. Despite the utility of POCUS as a diagnostic tool, however, many providers rely on other imaging modalities that may require long waiting times and delay treatment. While surgical trainees are being provided with more ultrasound training than ever before, there is no standardized ultrasound curriculum across general surgery residency training programs and no minimum standard for residents regarding ultrasound use for graduation. These reasons may contribute to why POCUS is underutilized in clinically appropriate scenarios[1,3].

Objectives

There are no published studies to date that explore the barriers to using POCUS in the surgical setting. This study aims to identify major barriers to using POCUS and to determine whether hands-on ultrasound training has an impact on the use of POCUS by surgical residents, fellows, and attending physicians.

Methods

A fifteen-question survey was administered to surgeons including residents, fellows, and attending physicians at multiple institutions in North America. The survey aimed to assess the surgeon's comfort in using bedside ultrasound, including exams such as the Extended Focused Assessment with Sonography in Trauma (eFAST) and the Rapid Ultrasound for Shock and Hypotension (RUSH), as well as any barriers they perceived might contribute to their hesitancy in using POCUS. Our data was analyzed using several different methods including two-sample t-tests.

Results/Outcomes/Improvements

We obtained 69 survey responses, including 47 attending physicians, 17 residents, and 5 fellows. Respondents identified major barriers to using POCUS as lack of ultrasound training (27% of respondents), lack of ultrasound experience (28%), lack of access to equipment (32%), and ease of using alternative imaging options (14%). Individuals who received hands-on ultrasound training in medical school reported significantly higher comfort level performing ultrasound exams, including the eFAST ($p=0.017$) and the RUSH exam ($p=0.0003$), as compared to their peers who did not receive such training. Additionally, those who cited "lack of ultrasound training" as a barrier to using ultrasound were significantly less comfortable performing eFAST exams than their peers who did not report a subjective lack of ultrasound training ($p=0.022$). Notably, there was no difference between comfort levels in performing the eFAST exam between individuals at community versus academic centers ($p=0.539$).

Significance/Implications/Relevance

This study sheds light on various barriers to using POCUS in the surgical setting, particularly highlighting the importance of hands-on ultrasound training in the early stages of medical education. Respondents with dedicated hands-on ultrasound training in medical school and residency were significantly more comfortable than their peers who were not provided with formalized ultrasound training. This suggests that medical education programs should provide a more robust ultrasound curriculum in order to maximize the utilization of this efficient diagnostic tool.

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Poster # 46: From Experience to Competence: Mining the Electronic Health Record to Measure Clinical Experiences in Trainees

Author(s): Vasudha Bhavaraju, MD; Sarada Soumya Panchanathan, MD; Brigham Willis, MD, MEd; Pamela Garcia-Filion, PhD

Institution(s): Phoenix Children's Hospital; University of Arizona College of Medicine; University of California - Riverside School of Medicine

Abstract Type: Innovation-focused

Background

Medical education has been traditionally time-based, which presumes all learners will meet professional standards in a pre-set time. Conversely, competence-based education uses outcomes to assess standards, and is more learner-centered. This latter model is grounded in Kolb's framework for experiential learning and emphasizes reflection on direct patient encounters as a basis for improvement. This concept is essential in medical training, but unlike surgical specialties where "procedure case logs" are required to assess progress towards independent practice, medical specialties do not have required case logs, partly since capturing and standardizing these data is challenging. The Electronic Health Record (EHR) is a repository that can provide individual trainees a survey of their clinical experiences to direct learning. This process, in aggregate, could establish "clinical case logs" and the ideal volume and variety of experiences needed to standardize training and inform competence.

Objectives

The purpose of this project was to tackle the challenge of capturing data on trainees' direct clinical experiences and make these data applicable for experiential, self-directed learning. In our large pediatric residency program, we sought to develop a method of using the EHR to measure the volume and variety of diagnoses each pediatric resident sees, provide internal comparisons with other trainees, and create a useful visualization that enables individual residents and programs to identify gaps in training.

Methods

We extracted EHR metadata of ambulatory clinic notes authored by residents at a continuity clinic site from 2013-19. Data measured patient variety (ICD-10 codes) and volume (number of unique visits and unique patients). A focus group of 5 pediatric outpatient faculty generated a list of major diagnostic groups (e.g. headache, eczema, anemia), based on consensus, that a resident should target to become a well-rounded pediatrician upon graduation. Data from 2017-19 were summarized and aggregated at the individual resident and current class level, and data from 2013-16 were aggregated to reflect experiences of graduated residents. A radar chart was created to reflect patient volumes seen, with each major diagnostic group represented by one spoke. Individual resident data were shown with comparison to classmates and program graduates. A post-implementation survey was sent to residents to gauge the acceptability and utility of the data.

Results/Outcomes/Improvements

Clinical experience data for 89 residents was extracted. The process was feasible, efficient and automated. As expected, patient volumes per diagnostic group increased with PGY level and were higher for those on an ambulatory track; some diagnoses (well-checks, obesity) were more numerous than others (autism, STIs). Radar graphs with individual resident and comparison data per diagnostic group were distributed biannually for resident analysis and goal-setting. In post-surveys, 50% of residents used the reports to set clinical goals (“see more adolescents,” “improve comfort with vaccine hesitancy”); 40% set coding goals (“bill more on top of well checks,” “add Z codes when counseling”). Residents found the radar graph logical and useful for comparing experiences with peers and identifying gaps in training. These data also showed clinic-wide deficiencies with some diagnoses (ADHD) thus presenting opportunities for additional modes of topic exposure, like didactics or modules.

Significance/Implications/Relevance

This study highlights a feasible method to curate and present objective data about resident clinical experiences. In a snapshot, a resident can track progress of clinical exposures over time, relative to peers and graduates, and create a learning plan. This process has current significance as the pandemic has disrupted traditional training and program directors are tasked to help trainees identify and address deficiencies. Access to data on clinical experiences of current residents compared to pre-pandemic years is indispensable. We further believe that this methodology can be used by other GME programs and aggregated across specialties and institutions to create national benchmarks. The resultant standardized “clinical case logs”, similar to procedure logs in surgery, could be used to develop the ideal volume and variety of patient diagnoses a resident should encounter during training, and be further used to inform competence-based progression towards independent practice.

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Poster # 47: Milestone Geared Assessment day, “MeGACode” increases the ability of residency programs to evaluate learners

Author(s): Julie Cueva, DO, MSED; Arlene Chung, MD, MACM, FACEP; Mert Eroglu, MD; Michael Lamberta, MD; Catherine DeGuzman, MD

Institution(s): Maimonides Medical Center

Abstract Type: Innovation-focused

Background

The Emergency Medicine (EM) Milestones are designed for use in evaluation of residents in the context of their participation in ACGME-accredited residency programs. They provide a framework for assessment in the development of key dimensions of physician competence in a specialty. The challenge, however, is finding a systematic way to assess each milestone. Knowing that meaningful assessment should be both longitudinal and multivariate our program has implemented a curriculum that allows us to assess every resident in multiple milestones through a variety of activities at multiple points throughout training. “MeGACode” is a semiannual event built into the longitudinal conference curriculum filled with standardized patients encounters, procedural simulations, oral boards cases, and written assessment. This curriculum has sustained since the initiation of the milestones in 2013.

Objectives

The objective of this curriculum is to provide both a quantitative and qualitative assessment of emergency medicine residents at several intervals throughout their training and obtain meaningful data on various competencies and milestones to aid in the summative assessment of all residents.

Methods

A needs assessment was completed which showed difficulty in evaluating interpersonal communication and professional values milestones within the clinical environment. The milestones were mapped out by the Core Clinical Competency committee (CCC) with best tools to fit each discussed. Activities are then created to fit each milestone. Assessment tools include standardized patient encounters, oral boards style cases, procedural simulation and written exams. The encounters, cases and simulations are adapted to class level. The cohort of 50 residents are split into two groups to participate in a 4-hour session on one of two days once in the fall and spring. The sessions precede the residency CCC meeting. The evaluation is done in real time by faculty who have received materials and training ahead of time. Data is collected and recorded on all participating residents and saved by the program coordinator. The data is then shared with members of the CCC for comprehensive milestone assessment.

Results/Outcomes/Improvements

Maimonides Medical Center Emergency Residency program is a 3 year ACGME accredited residency in Brooklyn, NY with 16-18 residents per class. With this event we have been able to successfully evaluate and obtain data on all emergency medicine residents across three post-graduate levels in sixteen milestones since the initiation of this program in 2013. These milestones include: Patient Care (PC) 1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10, PC11, Professional Values (Prof) 1, Prof 2, Interpersonal Communication skills (ICS)1, ICS2, and Systems-Based Practice (SBP) 2. This data has been provided to our core clinical

competency committee and has aided in the summative assessment of each resident and informs the decisions of promotion and remediation.

Significance/Implications/Relevance

In this program we hope to show that by creating a day dedicated to milestone assessment residency programs can get impactful data on residents across multiple milestones especially in those competencies including interpersonal communication and professional values which may be more difficult to evaluate in the clinical environment. This can be done in a fun and interactive day that also fosters resident education. We believe that this style of program is implementable across programs and specialties and can be adapted to meet the needs of the program. By giving the framework we show that it is not only feasible but also sustainable. We hope to inspire other programs to consider this approach in milestone evaluation. We are currently working to adapt the program to meet the updated Milestones 2.0.

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Poster # 48: A Quality-Improvement (QI) Framework for Engaging Family Medicine Residents to Assess & Address Social Determinants of Health (SDoH) in a Teaching Health Center.

Author(s): Amardeep Khushoo, PhD; Kenny Rivera, MD; Arzoo Sadiqi, DO; Akosua Opoku-Boateng, MD; Yi Wang, MD; Maria Jerardi, MD, MHS; Lydia Herrera-Mata, MD, MS

Institution(s): Valley Health Team Family Medicine Residency Program

Abstract Type: Research-focused

Background

The COVID-19 epidemic has brought renewed attention to inequities in health outcomes for vulnerable, minority, and underserved populations. Social determinants of health (SDoH) greatly influence (up to 80%) the health & well-being of individuals and communities, and when left unaddressed, result in many health inequities. Unmet social needs can contribute to poorer health outcomes, worsening chronic disease, more frequent ED visits, hospitalizations, and increased healthcare costs.

Incorporating action-oriented SDoH training can provide an opportune setting for resident physicians to engage more fully with patients and simultaneously address their health-related unmet social needs. Moreover, incorporating SDoH screening into the clinic workflow can help care teams understand patient preferences, provide targeted care, appropriate referrals, and other necessary interventions.

Objectives

The quality improvement framework aimed to:

1. Develop a structured curriculum for training third-year family medicine residents in quality improvement methodology, equity, and social determinants of health.
2. Implement the 'Protocol for Responding to and Assessing Patient Assets, Risks, and Experiences' (PRAPARE) tool to assess and address SDoH and health equity factors in our underserved community health center patient population.

Methods

Four PGY-3 residents set a goal to screen one hundred continuity patients for SDoH using the PRAPARE paper tool during routine clinic visits. The quality improvement training and SDoH project implementation spanned six months (November 2020 to May 2021).

Outcome Measures:

- Completion of #100 PRAPARE screens.
- The number of patients provided a relevant community resource on needs assessment.

Process Measure:

- The number of PRAPARE screens per resident per 2 week period.

Balancing Measure:

- Resident perspective and feedback on various aspects of equity-SDoH education, project design, workflow, and patient engagement using an 8-question Likert scale survey.

The SDoH data were analyzed for various patient characteristics. Additional data on Co-morbidities (Diabetes, Hypertension, and Hyperlipidemia), Depression (PHQ-9), Alcohol-use

(CAGE), and Tobacco-use were collected by retrospective EHR chart review. Descriptive and inferential statistics were employed for data analysis.

Results/Outcomes/Improvements

One hundred patients completed the screen, with a >90% response rate for all questions except for annual family income (49%). At least two distinct SDoH risks were present for all patients. The median number of risks for a patient was 5 (IQR 4-8). The most common unmet material need was Medicine/Medical Care (11%), followed by Food (8%), Utilities (8%), and Clothing (8%). 1 in 4 patients were vulnerable to Loneliness. Up to 30% of the patients had less than high school education. Although 31% had a full-time job, only 6% had annual family income above 200% federal poverty level. Up to 19% of patients were worried about losing their housing. 56% of patients had low social & emotional health indices and, 46% were found to have significant stress levels. 35% of patients received behavioral health or community resource referral. This project enabled residents' to better understand patient's individual needs; however, the brevity of office visits was indicated as a hurdle in implementation.

Significance/Implications/Relevance

We describe an experiential quality improvement framework to train family medicine residents in implementing and addressing social determinants of health in a teaching health center environment. In this context, SDoH screening and assessment is a feasible and valuable strategy in a primary care clinic setting. Assessing SDoH risks can provide clinical care teams with valuable insights into the critical barriers for patients in attaining optimal health. Even though integrating this framework into routine clinical settings may require some logistic steering of the clinical workflow, it enables primary care clinics to address patients' social needs by linking them to the necessary community-based organizations and resources. Moreover, Community Health Centers can advocate for appropriate new resources for their local community, thereby promoting better health equity.

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Poster # 49: The Job Search Amongst Pediatric Hematology/Oncology Fellows: How Stressful Is This?

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Institution(s): Dana-Farber/Boston Children's Cancer and Blood Disorders Center; Rutgers Cancer Institute of New Jersey, Rutgers Robert Wood Johnson Medical School

Abstract Type: Research-focused

Background

The landscape of the workforce in Pediatric Hematology/Oncology (PHO) has been evolving over the past few decades. While first year fellow positions nearly doubled for two decades, interest in the subspecialty has waned, with 44% of PHO programs going unfilled in 2020 [1, 2]. Some have speculated that a dearth of desirable PHO jobs for graduating fellows could be to blame, but objective evidence is lacking.

Objectives

In this study, we aimed to evaluate the perceptions of the current PHO workforce (both fellows and faculty) about the experience of seeking an initial faculty position and its impact on fellow stress and anxiety.

Methods

An anonymous electronic survey was created by two PHO faculty and piloted by additional faculty and fellows. The survey consisted of questions on demographics, job search experiences including barriers and helpful tools, and emotional health impacts such as stress and anxiety. In June 2021, all PHO division chiefs and program directors were invited to complete a Qualtrics survey and to disseminate the link to their fellows. Descriptive statistics and two-tailed P values were computed for statistical analysis.

Results/Outcomes/Improvements

A total of 162 completed surveys (79 fellows, 83 faculty) resulted in a 24% response rate. Sixty-nine fellows (87%) and 60 faculty (72%) felt that they were struggling ($P=0.0198$). Fellows were noted as "extremely stressed" or "stressed" by 95% of faculty and by 75% of fellows ($P = 0.0003$). Almost 50% of fellows reported anxiety on "more than half the days" due to the job search. Over 50% reported difficulty finding jobs that aligned with their ideal goals. By June 2021, 30/44 (68%) candidates had been offered a position, and 24/30 (80%) had accepted a position. The majority felt that COVID-19 had impacted the job search. Respondents most frequently used online listings, program leadership, and word of mouth to identify available jobs. Common barriers included geographic constraints ($n=26$, 59%) and partner employment ($n=17$, 39%). Respondents identified career development tools ($n=46$, 58%), early mentorship ($n=19$, 24%), and centralized job listings ($n=16$, 20%) as needed interventions.

Significance/Implications/Relevance

This study suggests that the perception of difficulty and stress regarding the post-fellowship job search is endorsed by most fellow candidates and their program leadership. These data beg for additional interventions to improve the efficacy and subjective experiences of our trainees searching for their initial faculty positions. These data also highlight unmet educational needs

among PHO fellows. Next steps include the development of educational programs to prepare graduating fellows for the job search process.

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Poster # 50: Innovation in Interview Season: Early Interviews to Increase Accessibility for Diverse Applicants

Author(s): Amy Riek, MD, MSCI; Jennifer Monroy, MD; Thomas Baranski, MD, PhD; Abby Spencer, MD, MS; Janice Hanson, PhD, EdS, MH

Institution(s): Washington University School of Medicine

Abstract Type: Innovation-focused

Background

Medical education programs have struggled to increase the diversity of applicants to residencies and fellowships and to create application processes that are welcoming and accessible to applicants of widely diverse backgrounds and with differing socioeconomic resources. The COVID-19 pandemic has created additional challenges to recruiting and interviewing, and also some opportunities with the move to virtual interviews. We piloted a rapid interview process for two fellowship programs to accommodate similar numbers of interviews as in previous years while completing the rank lists by October 1st, leveling the application field by making all interviews virtual and all in-person visits optional, with all visits after the rank lists were established.

Objectives

1) Create an application and interview process that enhances equity among applicants; 2) Create a process with a timeline that completes interviews and rank list by October 1st such that optional visits occur after program rank list completion; 3) Increase diversity among applicants on the rank list and among those who match/come to our programs.

Methods

Two fellowships within the Department of Medicine participated in this innovation—endocrinology, and allergy and immunology. The programs planned for a rapid interview season by adding a second interview day each week, shortening each interview slightly, combining ancillary activities (e.g., fellow happy hour) for all applicants in the same week, and committing to completing our rank list by October 1st. This allowed offering optional in-person visits such that trainees could visit our institution without feeling the pressure of “having to show interest” because our rank lists were already completed. This approach to applications and interviews was evaluated by 1) recording the number of applicants, number of interviews, and number of interviewers; 2) comparing these numbers to prior interview seasons; 3) gathering feedback from interviewers; 4) gauging satisfaction with the rank lists.

Results/Outcomes/Improvements

Endocrinology applications increased 43% since the conversion to virtual interviews in 2020, from 109 applicants in 2019 to 156 in 2021. Total number of interviews increased from 27 to 36 to 46, respectively for 2019 to 2021. In 2020, 19 faculty interviewers completed all interviews over 9 weeks, while in 2021, 18 interviewers completed all interviews over 8 weeks. Allergy total applicants in 2020 were 90 for 2 pediatric track and 2 adult track spots. Twenty applicants were interviewed for adult track and ten were interviewed for pediatric track. Applicants in 2021 were 94 for 1 pediatric track and 2 adult track spots; 19 interviewed for pediatric track and 21 for adult track. The rank lists were completed by September 30th, but their submissions were delayed by applicants who had not registered for the match.

Significance/Implications/Relevance

Our fellowship programs were pleased that we were able to interview the same number of applicants as prior years but in a shorter time frame. By adding an extra interview day per week, we were able to utilize roughly the same number of faculty and the same overall number of interview sessions, and interview enough candidates to comfortably fill our rank list. By doing this, we were able to complete our rank list weeks earlier than usual, therefore opening options for in-person visits that were separate from the interviews and ranking. Having already completed our rank lists, our applicants could choose to visit or not, depending on their levels of interest and available resources, without having to worry about a visit influencing their position on the rank list. This process allows those without the financial means to visit us to have an equal playing field with those who do.

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Poster # 51: Telemedicine and Medical Licensure Portability: What's Ahead for Multi-State Practice?

Author(s): Humayun Chaudhry, DO, MACP

Institution(s): Federation of State Medical Boards (FSMB)

Abstract Type: Innovation-focused

Background

During the COVID-19 pandemic, the use of telemedicine in the United States to deliver health care has surged. Physicians have increasingly turned to it as a means of ensuring the continuity of patient care in the midst of pandemic-related shutdowns, and state medical boards across the United States – as well as the federal government – have made adjustments to licensing and reimbursement policies to facilitate its use. Our poster will highlight what regulatory policies have changed, what is likely to change in the future, and how the new environment for telemedicine will impact medical practice across state lines.

Objectives

To discuss trends and developments in the growth of telemedicine in the United States, including projections for future expansion; describe the intersection of telemedicine practice with current medical licensing requirements and other governmental policies – how these relationships are evolving, what they are likely to look like in the future, and how physicians will be impacted; and cite specific policies and resources impacting multi-state medical practice, including the Interstate Medical Licensure Compact, and the FSMB Workgroup on Telemedicine.

Methods

One way to make it easier for physicians to use telemedicine to treat patients in other states is through utilization of the Interstate Medical Licensure Compact (IMLC), an agreement among participating U.S. states to work together to streamline the licensing process for physicians who want to practice in multiple states. It offers a voluntary, expedited pathway to licensure for physicians who qualify. The aim of the IMLC is to improve multi-state telehealth programs by providing a streamlined process for licensure while increasing access to health care – particularly for patients in underserved or rural areas. The IMLC makes it possible to extend the reach of physicians, improve access to medical specialists, and leverage the use of new medical technologies, such as telemedicine. The IMLC also strengthens public protection by enhancing the ability of states to share investigative and disciplinary information.

Results/Outcomes/Improvements

The IMLC currently includes 35 states, the District of Columbia and the Territory of Guam. In these jurisdictions, physicians are licensed by 43 different medical and osteopathic boards. Other states are currently in the process of introducing legislation to adopt the compact. As a result of the COVID-19 pandemic, utilization of the IMLC has grown. Since its inception in April 2017 and through September 2021, 16,218 licensure applications have been received through the IMLC with 24,681 licenses issued. In September 2021 alone, 614 licensure applications were received with 1,360 licenses issued.

Additionally, in response to the COVID-19 pandemic, 18 states, plus DC, enacted emergency measures to recognize licensure portability, enabling physicians to use telehealth across state lines by temporarily modifying requirements for telehealth.

Significance/Implications/Relevance

FSMB recognizes that technological advances have made it possible for licensees to provide medical care to patients who are separated by some geographical distance. As a result, telemedicine is a useful practice model that provide important benefits to patients, including increased access to health care, expanded utilization of specialty expertise, rapid availability of patient records, and the potential of reduced healthcare costs, increased efficiency, and improved overall healthcare outcomes. The ongoing research and formal training in the technologies associated with telemedicine reflects the evolving nature of telemedicine practice. With the recent launch of Provider Bridge, a new online platform to help mobilize health care professionals to treat patients during the pandemic, it has created a timely opportunity to expand medical license portability and facilitate telehealth.

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Poster # 52: Providing a Roadmap to Professional Proficiency: A New Program Director Institutional Onboarding Sequencing Series Aimed to Develop GME Leaders

Author(s): Melissa Hansen, MEd; Russell Hathaway, PhD; J. Sybil Biermann, MD

Institution(s): University of Michigan

Abstract Type: Innovation-focused

Background

In 2015, the Group on Resident Affairs (GRA) Core Competency Task Force revised its GME Institutional Leadership Competencies. This framework outlines four leadership competency domains for institutional GME leaders: foundational attributes, leadership capabilities, knowledge and skills, and entrustable professional activities (EPAs).

EPAs are defined by the GRA as activities and responsibilities GME leaders must successfully execute to achieve professional proficiency. This abstract focuses on Development and Support of GME Leaders with a concentration on new program directors (PDs), identifying and implementing strategies for ensuring competent, informed, educated, and high-performing GME PDs, as this EPA advocates.

The literature addresses leadership development for PDs, as well as orientation for program administrators. However, there is little to no evidence that a program, such as the one described in this proposal, has been implemented to support new PDs.

Objectives

The purpose of the New Program Director Institutional Onboarding Sequencing (PD-IOS) series is to support development of newly appointed PDs. Programming concentrates on approaches aimed at achieving professional proficiency, by way of informing and educating new PDs, with the goal of competence and high-performance.

Methods

PD-IOS was developed as a blended course, employing flipped classroom techniques and includes a hybrid of online and face-to-face learning designed to equip new PDs with GME knowledge necessary to successfully lead their program while uniting like-minded individuals to form a rich community of inquiry.

Course structure consists of a one-year rolling curriculum. Participants meet synchronously for 30-minutes per month with an opportunity to interact with the DIO and new PD peers during discussion on topics such as GME Representation in Institutional Leadership, GMEC, Program Curriculum, Training Program Committees, Employment Supervisor Responsibilities, and other operational and compliance-related topics.

Cohort participants completed a pre-program survey addressing feelings about becoming a new PD focusing on preparedness, confidence, and skill set. The survey also provided an opportunity to identify strengths and opportunities for further development.

Results/Outcomes/Improvements

In September 2021, new PDs (n=16) were invited to complete a pre-program survey as a means to identify strengths as well as opportunities for development. Fourteen faculty completed this brief survey, for a response rate of 87.5%. Using a 5-point Likert scale, respondents were asked to rate their feelings about becoming a PD, on a sliding scale, with the lowest end indicating the need for more support in a particular area and the higher end

signifying a greater confidence. Results address the following areas: preparedness (3.86); skill (3.57); knowledge of the PD role (3.5); comfort level with the new role (3.71); confidence in program development (4.36). Analysis of open-ended responses indicated respondent confident to implement programmatic change as a new PD, but a need for skill development in program specific administration and ACGME requirement management.

Significance/Implications/Relevance

A course such as the New PD-IO series not only supports newly appointed PDs but addresses the GRA's GME institutional leadership competency concentrated on development and support of GME leaders. In general, we found that new PDs feel they are prepared and have the confidence to implement program change and move their program forward. However, they feel the need to develop their understanding and hone in on skills and knowledge necessary to navigate administrative responsibilities and ACGME requirements to manage their program on a day-to-day basis. The New PD-IO series will be fine-tuned along the way, as needed, to assure participants are on track to achieving professional proficiency.

References

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