TWENTY-FIRST ANNUAL

Institute for Medical Education

Education Research Day

Abstracts

Tuesday, April 16, 2024, 10 am – 4 pm

Icahn School of Medicine at Mount Sinai

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EDUCATION RESEARCH DAY 2024

Welcome to the Institute for Medical Education (IME) at the Icahn School of Medicine's twenty-first annual Education Research Day (ERD). It is exciting to see the breadth of innovative medical education scholarship developed by our faculty, trainees, students and staff. Each year we welcome an expanding group of educators from all disciplines and levels of training. We are proud to display the excellent work being done in education research across the Mount Sinai Health System.

There are three goals for ERD:

- To highlight and disseminate the educational research and innovative curriculum development at Mount Sinai and its affiliate institutions.
- To provide a forum for educators to learn from each other and collaborate.
- To prepare authors for regional and national presentation and dissemination of their scholarly educational work.

All submitted abstracts were reviewed by a selection committee. Abstracts were blinded and evaluated based upon established criteria for scholarship in education: Clear Goals, Appropriate Methods, Measures of Quality/Effectiveness, Significant Results and Reflective Critique. Innovation and impact of the project were also considered.

This year, five abstracts were chosen from the 70 submitted abstracts to receive Blue Ribbons. Blue Ribbon Winners represent outstanding examples of educational scholarship.

We wish to thank the Selection Committee, the Department of Medical Education, and the authors who submitted their work. Congratulations to all of our authors for their dedication to education research and for sharing their innovative work with our community.

Reena Karani, MD, MHPE
Director
Institute for Medical Education
Icahn School of Medicine at Mount Sinai

COMMITTEE MEMBERS:

Reena Karani, MD, MHPE, Committee Chair

Linda DeCherrie, MD

Carrie Ernst, MD

Robert Fallar, PhD

Daniel Katz, MD

Jared Kutzin, DNP, MS, MPH, RN FSSH

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Georgina Osorio, MD, MPH

Chang Park, MD

Lauren Peccoralo, MD, MPH

Kamron Pourmand, MD

Elizabeth Singer, MD, MPH

Jennifer Weintraub, MD

EDUCATION RESEARCH DAY

SELECTION COMMITTEE 2024

Selection committee members did not participate in the discussion or voting for abstracts in which they were involved or with which they had any additional conflict of interest.

THIS YEAR, 70 ABSTRACTS WERE SUBMITTED BY FACULTY, STUDENTS, TRAINEES AND STAFF ACROSS THE HEALTH SYSTEM.

All abstracts were reviewed by the 2024 ERD Selection Committee. Of the 70 submissions, five abstracts have been awarded Blue Ribbons as outstanding examples of educational scholarship.

Please join us in congratulating the 2024 Blue Ribbon recipients:

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EMMA GUTTMAN-YASSKY, MD, PHD
ROBERT J. DESNICK, MD, PHD
LYNNE D. RICHARDSON, MD
BRIAN D. BROWN, PHD
JOSEPH D. BUXBAUM, PHD
YIANNIS A. IOANNOU, PHD
HELEN S. MAYBERG, MD
NINA BHARDWAJ, MD, PHD
DOCTOR

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Admissions/ Recruitment

POSTERS 1–2

ABSTRACT #1

THE IMPACT OF COVID-19 ON MEDICAL SCHOOL APPLICANT SENTIMENT OVER TIME AND BY SOCIOECONOMIC STATUS

Christopher P. Cheng, Vikram Vasan, Jace Jo, Carrie Ernst, Valerie Parkas

PURPOSE AND GOALS: This study aims to investigate the impact of the COVID-19 pandemic on the sentiments and diversity characteristics of applicants to the FlexMed program at the Icahn School of Medicine at Mount Sinai. The focus is on analyzing personal statements concerning future plans and adversities faced by applicants. The overarching purpose is to provide insights into the evolving landscape of medical school admissions in the post- pandemic era.

1. Assess the linguistic impact of the COVID-19 pandemic on sentiments expressed in FlexMed applicants' personal statements.
2. Identify demographic disparities in sentiment patterns, particularly among underrepresented, disadvantaged, and first-generation applicants.
3. Evaluate trends in applicants' engagement with optional adversity essays over the study period.

METHODS:

DATA ACQUISITION:

- Collection of deidentified FlexMed program applications from 2020 to 2023.
- Demographic data including sex, underrepresented in medicine status, disadvantaged status, first-generation status, and Pell grant status.

DATA ANALYSIS:

- Utilization of Empath, a deep learning tool, for sentiment analysis.
- Selection of 22 sentiment categories for assessing future plans and adversity essays.
- Wilcoxon rank-sum tests for comparing sentiment scores across years and demographics.
- Trends analysis and visualization for significant sentiment categories.

EVALUATION PLAN:

OBJECTIVES:

- Evaluate changes in sentiments expressed by FlexMed applicants over the study period.
- Examine demographic variations in sentiment patterns.
- Assess the impact of the COVID-19 pandemic on applicants' engagement with optional adversity essays.

METRICS:

- Empath sentiment scores for future plans and adversity essays.
- Application counts for optional adversity essays.
- Trends analysis for statistically significant sentiment categories.

SUMMARY OF RESULTS:

1. Future Plans Essay:
   - Decrease in "science" sentiment in 2021, persisting through 2022 and 2023.
   - Twelve significant changes in 2022, including increased negative sentiments and decreased references to "optimism," "science," and "work."

ABSTRACT #1 (CONT.)

2. Adversity Essay:
    - Three significant changes in 2021 persisting through 2022 and 2023, including decreased "family" and increased "internet" and "work" sentiments.
    - Sharp increase in applicants opting for adversity essays in 2021, gradually decreasing in 2022 and 2023.

3. Demographic Disparities:
    - Underrepresented applicants wrote more about optimism.
    - Economically disadvantaged, first-generation, and Pell grant recipients expressed increased negative sentiments, referencing family and financial challenges.

REFLECTIVE CRITIQUE:

This study emphasizes the enduring effects of the COVID-19 pandemic on medical school applicants, urging institutions to consider these insights during the evaluation of future applications. The observed shifts in sentiment, especially among economically disadvantaged applicants, can inform ongoing efforts to address disparities in medical education.

ABSTRACT #2

A NATIONAL SURVEY REGARDING MEDICAL SCHOOL ADMISSIONS PROFESSIONALS VIEW OF APPLICANTS' ONLINE PRESENCE

Sophia Gamboa, Zachary Gallate, Robert Fallar, Valerie Parkas

PURPOSE AND GOALS: The evaluation process of a medical school applicant is an extensive and meticulous undertaking managed by the admissions committee. This multifaceted assessment involves examining various elements within an application, including essays, extracurricular activities, and letters of recommendation. In the past two decades, there has been a discernible shift to also examine an applicant's online presence, especially since some students are choosing to link their accomplishments within the application. This expanded approach involves evaluating an applicant's social media profiles, professional online profiles, and references across mainstream search engines. However, there is little clarity regarding the specific online content that admission offices scrutinize, the manner in which they interpret such content, and ultimately, the influence their findings wield on an applicant's acceptance. Thus, the objectives of this study are to illuminate the prevalence of online screening practices; to identify the existence of formal policies governing online screening; and to clarify what information is used by admission team's during review of applicants.

METHODS: We will distribute a cross-sectional survey to admissions offices at 167 accredited American medical schools. The survey will be generated in RedCap and includes four sections, yielding 20 questions and subquestions. The four sections are as follows: 1) program demographic questions, 2) institutional protocols (i.e., Do you have an institutional policy regarding the review of an applicant's online presence?), 3) institutions without protocols (i.e., Which aspects of an applicant's online presence do you review, if any?) and 4) opinions in response to specific scenarios (i.e., How much do you agree or disagree with the following statement regarding social media presence and admissions?). Responses are completely confidential and anonymous and will be reported in aggregate with all other responses.

EVALUATION PLAN: Data will be collected from January 2024 to February 2024. Data will be compiled and analyzed quantitatively and qualitatively. Survey responses will be summarized with de-identified anecdotes and descriptive statistics. Whenever applicable, we will compare survey responses across different groups or variables of interest.

SUMMARY OF RESULTS: Data will be collected by the end of February 2024.

REFLECTIVE CRITIQUE: This study aims to shed light on the assessment process used by admission officers when evaluating medical applicants. The insights gained will benefit both applicants and admission officers. Students can potentially enhance their applications by leveraging their online profiles, while medical school offices may achieve more consistent applicant evaluations upon u nderstanding the diverse protocols in use. Anticipated limitations of this study include low response rates, varying response quality, and response bias.

Artifical Intelligence

POSTERS 3-4

ABSTRACT #3

HOW DO WE TEACH GENERATIVE ARTIFICIAL INTELLIGENCE TO MEDICAL EDUCATORS? PILOT OF A FACULTY DEVELOPMENT WORKSHOP USING CHATGPT

Nisha Chadha, Erik Popil, Jill Gregory, Lilas Armstrong-Davies, Gale Justin

PURPOSE AND GOALS: Artificial intelligence (AI) is already impacting the practice of medicine and it is therefore important for future healthcare professionals and medical educators to be educated on the benefits, limitations, and applications of this technology. The purpose of this workshop was to develop, implement, and evaluate a faculty development workshop on generative AI using ChatGPT.

METHODS: A brief workshop on generative AI and its applications in medical education was developed for faculty preceptors in the Arts and Science Medicine Course at ISMMS. Following an introductory lecture, faculty were given prompts to enter into ChatGPT that were relevant to their teaching activities including generating differential diagnoses and providing feedback on student notes. Each exercise was performed in small groups of 2-3 faculty members.

Following each query, a discussion amongst faculty on the accuracy of and agreement with results produced by ChatGPT was held. Variations in input queries and output generated by ChatGPT were also compared and contrasted between groups to demonstrate how output was more accurate with more specific queries.

EVALUATION PLAN: Participant feedback was collected using an anonymous survey.

SUMMARY OF RESULTS: 27/36 participants completed the survey. Prior to the workshop, while 48% indicated having used ChatGPT, approximately only half were familiar with AI applications in medical education. Interest in using the tool increased from 43% to 65%, following the workshop, yet participants expressed concerns regarding accuracy and privacy with use of ChatGPT.

REFLECTIVE CRITIQUE: This brief workshop serves as a model for faculty development in AI applications in medical education. The workshop increased interest in using ChatGPT for educational purposes, and was well received.

ABSTRACT #4

NEXT-GEN RESIDENT EDUCATION: CHATGPT'S ROLE IN AI-POWERED ACLS SIMULATIONS

Farah Gazi, Samuel Huang, Daniel Kurbanov

PURPOSE AND GOALS: Medical training in cardiac emergencies often relies on traditional methods that may not adequately prepare clinicians for real-world scenarios. The rise of artificial intelligence (AI) software has proven to be a promising tool in medical education. This study aims to assess the impact of an AI generated simulation training program on the self-perceived confidence and skills of internal medicine residents in Advanced Cardiovascular Life Support (ACLS). We use AI to create a realistic patient encounter of clinical deterioration based on the teaching goals, and producing an algorithmic scenario for educators that considers the learners' actions during the simulation.

METHODS: AI software ChatGPT was used to create 4 simulations that started with a rapid response that decompensated into an ACLS scenario using an incremental algorithm in which each step was dependent on how participants responded to the prior step. The study was divided into 2 phases. In phase 1, 35 Internal Medicine residents participated in an hour long ACLS simulation session with a manikin using traditionally generated scenarios. In phase 2, 12 of these residents subsequently participated in an hour long session using ChatGPT generated scenarios. A survey of 10 questions was administered to residents before and after all sessions, covering various skills required in ACLS. Residents provided scores on a Likert scale from 1-5 for each question from 1 being strongly disagree to 5 being strongly agree.

EVALUATION PLAN: Survey results were analyzed for average scores and standard deviations for each question. 2 sample t-tests were used to calculate p-value to compare scores before and after phase 1 and subsequently after phase 2. Effect size was calculated using Cohen's d score and compared between phase 1 and phase 2.

SUMMARY OF RESULTS: Mean score from pre-simulation was 2.93 and increased to 3.79 after phase 1 and 3.99 after phase 2. In phase 1, the mean difference of pre- and post-training scores was 0.86 ($p<0.001$, Cohen's $d = 1.80$, standard deviation = 0.47), with a significant increase across all 10 domains in the survey. In phase 2, mean difference between pre-phase 1 and post-phase 2 was 1.06 ($p <0.001$, Cohen's $d= 2.51$, standard deviation = 0.42), with significant increase across 9 domains. Specifically, after completing phase 1, participants had further increase in score from post phase 1 to post phase 2, the mean difference was 0.21 (p value=0.019, Cohen's $d =0.71$, standard deviation =0.29).

REFLECTIVE CRITIQUE: The study is limited by self-report bias since skills are assessed via survey. Overall, we present a novel approach to simulation training using AI to create complex cases that are more realistic, challenging, and especially relevant as learners advance in their skills. These scenarios can be rapidly generated and tailored to learners' and institutional needs and provide increasingly high-fidelity simulations that, with further refinement and increasing power of AI applications, will approach emulation of real-life medical scenarios.

Assessment

POSTERS 5-7

ABSTRACT #5

EXAMINING THE EQUITY OF THE AAMC PREVIEW PROFESSIONAL READINESS EXAM SCORES IN MEDICAL SCHOOL ADMISSIONS AT THE ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI

Edward K. Sarfo, Jerrel Catlett, Jessica Maysonet, Valerie Parkas, Talia H. Swartz

PURPOSE AND GOALS: Situational Judgment Tests (SJT) have been employed across various fields to evaluate non- cognitive attributes, but their use in evaluating medical school candidates is an area that requires further exploration. These tests aim to gauge an applicant's ability to navigate complex scenarios and assess qualities such as empathy, service, resilience, professionalism, and ethical decision-making. While SJTs offer a valuable dimension to the admissions process, it is imperative to scrutinize their utility, ensuring they align with broader goals of validity and equity and do not inadvertently create new barriers for applicants who are underrepresented in medicine (URM). We aim to evaluate the relationship between the recently introduced AAMC PREview Exam performance SJT and admission outcomes of medical school applicants.

METHODS: A retrospective analysis was conducted using data from 4,046 applicants who took the AAMC PREview exam and applied to the Icahn School of Medicine at Mount Sinai (ISMMS). The PREview scores, which were not mandatory for application to ISMMS or used in the admissions process, were provided by AAMC after the application cycle concluded. A low PREview score was defined as ≤ 25th percentile. Admissions outcomes were assessed based on holistic review, including screening, interview, and subsequent committee scores.

EVALUATION PLAN: The primary outcome is the correlation of AAMC PREview to whether candidates were interviewed and, if interviewed, whether they received a favorable committee score that would predict likely acceptance. Applicant demographics, including socioeconomic status, first-generation status, and URM were examined using Chi-square and Z-test analyses.

SUMMARY OF RESULTS: Out of 4,046 candidates for whom a PREview score was available, 540 (13%) scored below the PREview cutoff, and among them, 37 (7%) were interviewed. A higher percentage (87%) of candidates with low PREview scores received a favorable committee score compared to candidates with a high PREview score(75%).

First-generation, low socioeconomic status (SES), and URM candidates were overrepresented in the low PREview scoring group. Despite lower PREview scores, 87% of these candidates received favorable committee scores, indicating that low PREview scores did not predict less favorable admissions outcomes for interviewed applicants. Also, there were no statistically significant differences in the proportion of favorable committee scores awarded to URMs, low SES, and first-generation candidates when stratified by low and high PREview scores.

REFLECTIVE CRITIQUE: The AAMC PREview Exam did not predict ISMMS applicant success in the 2022-2023 admissions cycle. Moreover, if the PREview exam score was solely used as the cutoff criterion for screening before interview offers, it disproportionately disadvantaged URMs, low SES, and first-generation candidates. Considering barriers such as cost, access, and potential biases, there is a critical need to reevaluate the use of PREview and other SJTs in medical school admissions.

ABSTRACT #6

ARE WE READY FOR CHANGE? A MIXED-METHODS ANALYSIS OF ORGANIZATIONAL CHANGE-READINESS TOWARDS ANTI-RACIST MEDICAL EDUCATION ACROSS 11 MEDICAL SCHOOLS.

Francesca M. Silvestri, Jennifer M. Dias, Leona Hess, David Muller, Chloe Martin

PURPOSE AND GOALS: Medical education has a legacy rooted in racial injustice. Dismantling racism in medical school settings requires a strategy that is transformative, iterative, and lifelong. To inform this process, we first need to understand perceptions around an organization's readiness for change.

METHODS: A three-year Anti-Racist Transformation in Medical Education project was funded to replicate Mount Sinai's change-management strategy at 11 partner medical schools in the U.S. and Canada. During phase 1, organization change readiness was assessed using REDcap surveys and group-based discussions. The organization change readiness assessment was adapted from several organization capacity assessments and consisted of 29 statement questions. Organization change readiness indicators were scored according to the level of agreement with the statement (Likert 5-point scale). Respondents could elaborate on their level of agreement using free text answers. To supplement the surveys, group exercises were completed by cohorts using a handout and guided facilitation.

EVALUATION PLAN: Organization change readiness surveys were distributed to the participating cohorts from the 11 medical schools. Participants were encouraged to share the surveys across their institutions. Two group exercises were completed on a virtual platform using a handout and guided facilitation. Survey responses and group exercises were conducted in the Fall of 2021. Inductive thematic analysis was used to code and define themes from the free text responses in the survey and from the guided facilitation of the group exercises.

SUMMARY OF RESULTS: 144 respondents completed the organization change readiness assessment. Among positive agreement statement questions, most (62.3%) agreed that their medical school creates space for discussing issues of race and racism in ways that are relevant to their work. Among negative agreement statement questions, most (53.7%) disagreed that the people with the most relevant lived experiences and/or who are most impacted by the decision are able to provide input into policy-making. 5 key themes were identified from the free text responses and group exercises according to the following: (1) Talk vs Action: Lack of Infrastructure to Enact Meaningful Change, (2) Breaking the Status Quo: Changing Culture, Structure, & Norms, (3) Pervasiveness of White Dominance, (4) Balancing Act: Post George Floyd Murder vs Changing Political Climate, (5) Looking to the Future: Change is Strength.

REFLECTIVE CRITIQUE: Among a cohort of students, faculty, and staff across 11 medical schools in the U.S. and Canada, statements assessing aptitude for organizational change readiness demonstrated high and low indicators of change. Key themes from qualitative data demonstrated emerging motivations to engage in anti-racist change among institutions, but many lack the infrastructure to do so. These findings represent a commentary on institutional perceptions of anti-racist change readiness and is one of the first steps towards anti-racist transformational change.

ABSTRACT #7

NOVEL MULTIDISCIPLINARY DEBRIEFING TRAINING PROGRAM FOR MOUNT SINAI HOSPITAL PROVIDERS

Svetlana Duvidovich, Patrick J. Maher, Jared Kutzin, Daniel Katz, Lauren E. Zinns

PURPOSE AND GOALS: A post-event review and reflection (PERR), also known as a hot debriefing, is a brief discussion among team members following a critical event. Debriefings have been shown to to improve provider wellness, highlight systems issues, enhance teamwork, and improve patient care. Despite the significant benefits, needs assessments demonstrate that many providers feel ill-equipped to facilitate a debriefing. The goal of this project was to create a novel debriefing training program for all providers to learn how to properly lead a team debriefing.

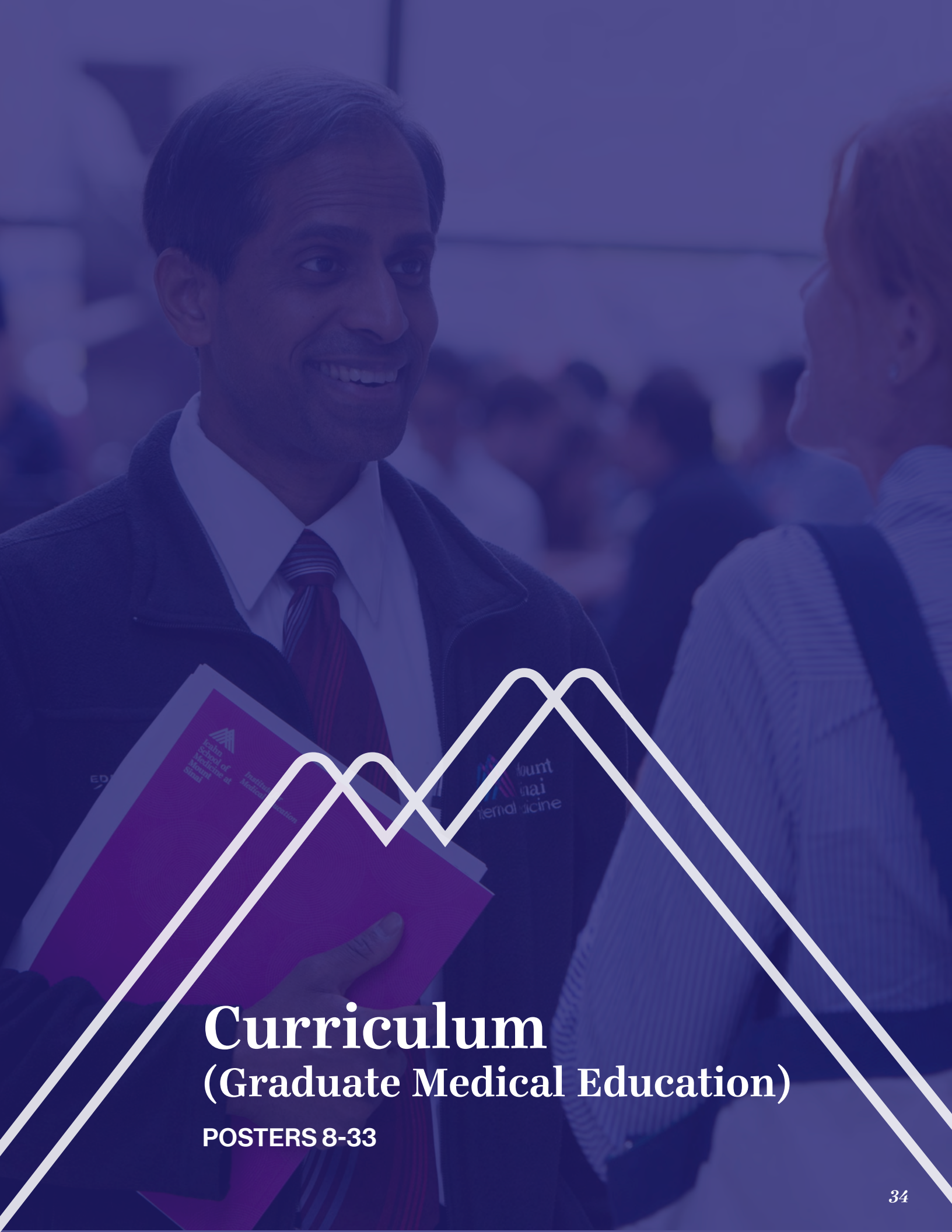
METHODS: A multidisciplinary PERR facilitator training was developed by experienced debriefing facilitators at Mount Sinai. The training included a 25-minute interactive, informative module on the Mount Sinai Portal for Education and Advancement of Knowledge (PEAK) followed by a one-hour, simulated practice session either in person or virtually.

EVALUATION PLAN: Each PERR facilitator training session was followed by an anonymous evaluation to assess the effectiveness of course material and its relevance to clinical practice.

SUMMARY OF RESULTS: Fifty-one providers have completed the PERR facilitator training. Of the total 51 providers trained, 25 identified themselves as attendings or fellows (49%), 16 as nurses (31%), 4 as residents (8%), 3 as physician assistants or nurse practitioners (6%), and 3 as other (6%). Most providers worked in Pediatrics (38%) or the Emergency Medicine Department (36%).

Regarding the post-training evaluation, 42/51 providers (82%) strongly agreed the knowledge they gained will be helpful in practice and 45/51 (88%) strongly agreed the knowledge they gained will help to improve patient outcomes. An overwhelming majority felt the course was excellent (90%). Providers reported improvement in learning to facilitate a debriefing as a result of the course.

REFLECTIVE CRITIQUE: Our data demonstrates that providers had a positive experience with the multidisciplinary hospital-wide PERR facilitator training at Mount Sinai. Future studies will be conducted to assess the impact of the PERR facilitator training on participation and facilitation of debriefings in clinical environments after critical events.



Curriculum
(Graduate Medical Education)

POSTERS 8-33

ABSTRACT #8

APPLYING MOTIVATIONAL INTERVIEWING TO IMPROVE GLAUCOMA MANAGEMENT: A PILOT STUDY WITH OPHTHALMOLOGY RESIDENTS

Nisha Chadha, Jenny Lin

PURPOSE AND GOALS: Motivational interviewing (MI) is a patient-centered counseling style that has been shown to be effective in promoting behavioral change, such as tobacco cessation, medication adherence, and reducing alcohol use. However, it has not been commonly used in ophthalmology, despite its myriad applications, such as for improving topical medication adherence in glaucoma management. Studies have suggested MI may be more effective when delivered by a physician. While there is some literature on MI applications within ophthalmology by para-professionals, there are no reports on its use by ophthalmologists. The purpose of this study was to develop, implement, and evaluate the effectiveness of an MI workshop for ophthalmology residents.

METHODS: A 1-hour interactive workshop was developed which included a brief lecture, original videos demonstrating glaucoma counseling with and without MI, as well as role play scenarios to practice MI skills. A standardized patient encounter (SPE) requiring glaucoma counseling assessed MI skills.

EVALUATION PLAN: Ten PGY-2 and 10 PGY-1 ophthalmology residents were randomized to complete the SPE either before the workshop (control group) or after (intervention group). SPE performance between groups was compared to assess for differences in MI skills. Pre and post surveys were administered to evaluate the workshop.

SUMMARY OF RESULTS: Residents in the intervention group performed better in the SPE (average score 82.2% vs. 63.9%, p=0.007), with no significant differences between PGY-1 and PGY-2 cohorts. The control group demonstrated 12.5% of MI-specific skills on the SPE, whereas the intervention group covered 75% of the MI-specific skills. Resident confidence using MI improved from 58% to 93% before and after attending the workshop. All residents reported they were likely to use MI skills in future patient encounters and would recommend the workshop be offered to future residents.

REFLECTIVE CRITIQUE: A brief MI workshop improved residents' confidence and MI skills in glaucoma counseling. Utilization of MI during future encounters may assist with improving glaucoma patients' adherence to medical treatment and ultimately improve disease management. The long term impact of the workshop will be assessed with a 6 month follow up survey.

ABSTRACT #9

BRIDGING THE GAP IN LGBTQ+ HEALTH TRAINING FOR INTERNAL MEDICINE RESIDENTS: A NEEDS ASSESSMENT AND CURRICULUM DEVELOPMENT STUDY

Lenisse Reyes Reyes, Sharel Sadud, Tamar Reisman, Helene Hedian, Tamara Goldberg, Joel Grimaldo Ochoa, Brent Arcayan

PURPOSE AND GOALS: LGBTQ+ patients often experience significant health disparities due to various factors, including limited access to culturally competent care. Internal medicine residents play an essential role in delivering care to such patients; however, most feel unprepared [1-8]. While several initiatives have been introduced to address this gap over the last ten years, further research is needed to identify specific areas where such training should be focused. This study aims to analyze a needs assessment, as the initial phase in developing a comprehensive LGBTQ+ health curriculum for Internal Medicine residents. The second phase will implement and evaluate the curriculum, with results expected by Spring 2024.

METHODS: A cross-sectional survey (from August to September of 2023) was conducted at an academic hospital in the Mid-Atlantic region of the United States. A non-probabilistic, convenient sample of 158 internal medicine residents was invited to participate. Descriptive statistics (frequencies, percentages) were calculated for all survey items. Fisher's Exact Test explored associations between categorical variables, with $p < 0.05$ considered statistically significant. All data analysis was conducted using SPSS v27.0.1.

EVALUATION PLAN: This anonymous online survey, developed and validated with LGBTQ+ health experts, assessed demographics, confidence levels, knowledge gaps, and preferred learning methods for multiple LGBTQ+ health topics.

SUMMARY OF RESULTS: During the initial phase, 39.8% (n=63) of residents completed the survey. 58.7% (n=37) were identified as senior residents. Among respondents, 50.8% (n=32) reported insufficient exposure to LGBTQ+ health education. Only 20.6% (n= 13) of residents expressed high level of comfort in addressing the unique healthcare needs of LGBTQ+ patients. Remarkably, comfort scores did not differ across training levels ($p > 0.05$). Participants reported greater comfort with general topics such as sexual health (68%) and pronoun use (54%) compared to more complex areas like gender-affirming hormone therapy (20%) and family/fertility planning (33%). The most frequently cited barriers to delivering optimal care to this population included; insufficient training (82.5%; n=52) and fear of appearing intrusive (61.9%; n=39). Furthermore, 73% (n=46) of residents cited online lectures as the preferred educational strategy for acquiring LGBTQ+ health knowledge.

REFLECTIVE CRITIQUE: Our survey analysis highlights a significant gap in self-reported comfort levels among internal medicine residents in delivering optimal LGBTQ+ care at a single program. Specific attention should be given to areas such as gender-affirming hormone therapy, fertility-related concerns, and promoting patient-centered communication training to address residents' fear of appearing intrusive to LGBTQ+ patients. While we acknowledge the low survey response rate could be a potential confounder, our findings nevertheless support advocating for the integration of comprehensive LGBTQ+ health education into residency curricula.

ABSTRACT #10

CADAVERIC DISSECTION FOR ANESTHESIOLOGY RESIDENT TRAINING AUGMENTS ANATOMICAL KNOWLEDGE AND CLINICAL SKILLS

Patrick Maffucci, Chang Park, Alexander Meshel, Stephanie Hojsak, Mo Shirur, Benjamin Hyers, Adam Levine, Daniel Katz, Jeffrey Laitman, Garrett Burnett

PURPOSE AND GOALS: Anatomy is an essential component of clinical anesthesiology. Virtually all procedures performed by anesthesiologists are rooted in a proficient understanding of anatomical structures. The use of simulated patients and alternative materials, including cadaveric dissection, have become increasingly common during resident training due to the deemphasis of anatomical education during undergraduate medical training. In this study, the need for more extensive review of relevant anatomy for the practice of anesthesiology was addressed by the design, evaluation, and dissemination of a cadaveric dissection course for procedural training of anesthesiology residents.

METHODS: The course utilized "freedom art" embalmed cadavers that allowed trainees to perform ultrasound-based regional and neuraxial techniques followed by detailed dissections of critical anatomy. The course was held four times (2020-2023) for a total of 20 days and was offered to all anesthesiology resident trainees across all four years of training. Each trainee participated for a single day.

EVALUATION PLAN: Participants completed anonymous pre- and post-course multiple-choice assessments testing anatomic and anesthetic knowledge pertaining to the regional, neuraxial, and airway topics. Participants also completed anonymous surveys assessing comfort with cadaveric dissection, perceived usefulness of the course, and subjective learning benefits.

SUMMARY OF RESULTS: 104 residents participated in workshops, small group discussions, and were evaluated using assessments. A variety of clinical techniques were performed on the cadavers, including regional blocks and neuraxial catheter placement. Residents reported a subjective improvement in their understanding of the anatomical basis for peripheral nerve blocks and neuraxial nerve blocks following the course. Assessment scores improved following the course (2023 pre-course mean 52.7%; post-course mean 72.2%; $p < 0.0001$) and feedback highlighted the usefulness and clinical relevance of course content.

REFLECTIVE CRITIQUE: The ability to correlate ultrasound imaging with subsequent dissections of the "blocked" area and visualization of dye staining was extremely relevant for spatial understanding of the anatomy relevant for the clinical practice of anesthesiology. It is difficult to accurately measure the effects of participation on patient care due to complex relationships between simulated training and clinical practice. However, assessment scores improved following the course for all levels of training, and participants reported a subjective increase in their understanding of the basis of peripheral and neuraxial techniques. Subjective feedback obtained was extremely positive, with free text comments highlighting the educational program as a unique experience not otherwise replicated during training.

Overall, the addition of cadaveric dissection into anesthesiology residency training was extremely beneficial and we are exploring further expansions to the course, including fellowship sub-specialty dissections.

ABSTRACT #11

DESIGN AND IMPLEMENTATION OF BLENDED TELEMETRY CURRICULUM FOR INTERNAL MEDICINE RESIDENTS

Arpanjeet Kaur, Joseph Elias, Forough Hakimzada, Kiran Mahmood, Edgar Argulian, Vasundhara Singh

PURPOSE AND GOALS: Inpatient telemetry monitoring is used to detect arrhythmias in patients deemed at a high risk for cardiac events. To deliver high value care it is crucial that physicians have knowledge of appropriate indications for telemetry monitoring, and have the skillset to effectively interpret and interrogate telemetry data. Misinterpretation leads to inappropriate treatment, adverse patient outcomes and overuse, which adds to healthcare cost, contributes to alarm fatigue and delays throughput. There are no widely accepted telemetry curricula for internal medicine (IM) residents. The goal of this study was to design and implement a multimodal curriculum to improve IM residents' knowledge and skills in telemetry interpretation via an education-based intervention involving (i) Review of appropriate indications (ii) Step-by-step interpretation of telemetry monitors.

METHODS: Based on the results of a targeted needs-assessment survey, a blended curriculum was designed consisting of brief online videos, case-based didactics and hands-on training. The curriculum was implemented during 2-week inpatient telemetry rotation at 1 of our 2 hospital sites. Thus, residents at this site were the intervention group and the residents rotating on inpatient telemetry floor at other site served as control cohort. The intervention group was provided with online videos before the start of the rotation to review key concepts of telemetry interpretation asynchronously. This was followed by 2 in-person small group weekly workshops, the first being a case based didactic session and the second a hands-on telemetry review session.

EVALUATION PLAN: At end of the rotation, participants at both sites were asked to complete a questionnaire testing participant's knowledge and telemetry-interpretation skills. The questionnaire also had open-ended questions to gauge their experience with the curriculum.

SUMMARY OF RESULTS: Out of total 72 residents included in the study, 34 in intervention group and 16 controls completed the questionnaire. The intervention group residents achieved better overall scores on the quiz (Mean score=5.2 vs Controls=4.3, out of total 7 points, $p<0.05$). Further analysis of the data showed that intervention group had improved knowledge of basic telemetry concepts and indications ($p<0.001$), however there was no statistically significant difference in telemetry interpretation skills between two groups($p=0.72$). Thematic analysis of qualitative comments showed that participants felt that the curriculum improved core knowledge, helped them become more comfortable in telemetry review and interpretation and impacted patient care management decisions.

REFLECTIVE CRITIQUE: Our curriculum significantly improved knowledge and had a positive impact on the participants' self-perception and attitude.The lack of improvement in skills may be due to short length of study, individual learning- style or small-sample size. This is an ongoing project, and we anticipate that inclusion of more residents in the future would provide additional meaningful data.

ABSTRACT #12

NEAR-PEER CASE DISCUSSION SESSIONS DURING INTERNAL MEDICINE RESIDENCY ORIENTATION IMPROVE LEARNER KNOWLEDGE AND COMFORT

Michelle Nanni, Varsha Subramaniam, Mayce Mansour

PURPOSE AND GOALS: The transition from medical student to resident is challenging, with residency program orientation existing as a unique opportunity to bridge gaps in skills among incoming interns and increase comfort in individuals' new role as a physician. Near-peer teaching has demonstrated benefits for both learners and teachers, though application to internal medicine residency orientation specifically is not well studied. The purpose of this study was to evaluate a resident developed, near-peer intern orientation session in its ability to improve learner knowledge and comfort with patient management and triage needs on night shifts in internal medicine residency.

METHODS: A 30-minute interactive, case-based small group session was created and delivered by first year internal medicine residents during incoming intern orientation. Content included clinical decision making and triage of patient management concerns that are commonly experienced on night shifts; case examples involved management of new hypertension, hypotension, or hypoxia and escalation for critical care needs. Participation in the session was voluntary.

EVALUATION PLAN: Pre and post session surveys were created to assess learner knowledge and comfort (1-5 Likert scale) with delivered content.

SUMMARY OF RESULTS: A total of 57 interns attended the session in groups of 15-22. Thirty participants completed a pre-session survey (53%), and 13 participants completed a post-session survey within one week of session completion (23%). Of the 5 survey questions on content knowledge, the percentage of post-session correct responses improved in all but one question, where responses were 100% for all respondents pre and post. Participants reported increased comfort in knowing where to escalate patient management concerns (2.6 vs. 4.3 Likert scale) and felt the session provided valuable information for managing night shift demands (4.6 Likert scale, 10 of 13 strongly agree).

REFLECTIVE CRITIQUE: This pilot study of near-peer content development and delivery of internal medicine intern orientation sessions provides preliminary support for improved learner comfort with and knowledge of clinical management and appropriate care escalation on night shift. Limitations of the study include low survey response rates, with potential areas for improvement in survey question wording to increase clarity. More incoming interns opted to participate in sessions than originally hypothesized, suggesting an area of need is being met with the sessions.

However, due to high turnout, sessions had more participants than intended with potential for room layout and timing optimization in future iterations. Additionally, topic areas were chosen based on existing literature and within-program feedback, but a formal needs assessment on additional topic areas could increase the session benefits. Finally, future evaluation could assess benefits to session instructors, as this style of teaching is unique in its developmental benefit to both learner and teacher.

ABSTRACT #13

IMPROVING INTERNAL MEDICINE STROKE EDUCATION: PRELIMINARY RESULTS FROM A PEER-LED STROKE EDUCATION INITIATIVE

Emma Loebel, Lauren Nelson, Aarti Rao, Laura Stein

PURPOSE AND GOALS: Across the United States, internal medicine (IM) physicians are most often responsible for the care of stroke patients in the inpatient and outpatient setting. However, IM residents often lack formal exposure to stroke care during training. This lack of formal training may impact physician confidence in caring for patients with stroke as well as patient outcomes. This study aims to improve IM resident knowledge and confidence recognizing and managing acute stroke or transient ischemic attack (TIA).

METHODS: This is an ongoing single-site observational cohort education study of IM residents rotating at the Bronx VA Medical Center. The study team developed 1) a lecture covering basics on recognition, work up, and treatment plan for acute stroke or TIA and 2) pre- and post- intervention confidence survey and knowledge questionnaire. The confidence survey uses a Likert scale for all responses, ranging from "no confidence" to "high confidence." The multiple-choice knowledge questionnaire is informed by literature review and IM board examination content. A neurology resident on the study team leads a one-hour virtual lecture via Zoom during the IM noon conference.

Participants complete a voluntary and anonymous pre- and post- confidence survey and knowledge questionnaire electronically via Microsoft Forms during the session.

EVALUATION PLAN: Intervention and analysis are ongoing. In this preliminary analysis, pre- and post- knowledge questionnaires were scored out of five points and compared with t-tests. Data from the confidence surveys were evaluated with descriptive analysis.

SUMMARY OF RESULTS: From October 2023 – January 2024, we conducted four sessions with a total of 32 residents, though not all completed the surveys. As such, the number of participants and response rates varied for pre- intervention confidence (n=22, 69%) and knowledge (n=18, 56%) surveys and post-intervention confidence (n=18, 56%) and knowledge (n=21, 66%) surveys. Average knowledge scores increased from pre-test 2/5 to post-test 3/5 (p=0.01). Participants expressing at least a "moderate level of confidence" (defined as "may act independently") in the following domains increased: acute stroke recognition (pre-intervention: 23%, n=5; post-intervention: 78%, n=14), work up (pre-intervention: 50%, n=11; post-intervention: 84%, n=15) and treatment plan (pre-intervention: 14%, n=3; post-intervention: 67%, n=12) as well as TIA recognition (pre-intervention: 18%, n=4; post-intervention: 78%, n=14), work up (pre-intervention: 32%, n=7; post-intervention: 89%, n=16) and treatment plan (pre-intervention: 23%, n=5; post-intervention: 67%, n=12).

REFLECTIVE CRITIQUE: Preliminary results from the first four sessions of our near-peer educational curriculum for IM residents demonstrated improved knowledge and confidence in recognition and management of acute stroke and TIA. Sessions are ongoing and we hope to increase response rate, as well as hone our teaching skills and lecture content to best meet our IM colleagues' needs.

ABSTRACT #14

LIBERATING LANGUAGE USE IN MEDICAL DOCUMENTATION

Adam Kraus, Claire Garpestad, Vinh Nguyen, Mayce Mansour, Joseph Truglio

PURPOSE AND GOALS: In the wake of the 21st Century Cares Act, medical documentation is under increasing scrutiny as patients have unprecedented access to their medical documentation. Multiple studies link stigmatizing language in documentation with worse health outcomes, specifically: rates of chronic disease screening, linkage to care, and follow-up. Stigmatizing language disproportionately affects marginalized and oppressed patients of color. The purpose of this project is to see if a pair of novel didactic sessions for PGY-1 Internal Medicine Residents decreases stigmatizing language and increases liberating language use in charting.

METHODS: Two didactic sessions, one for 1.5 hours and the subsequent for 1 hour, are delivered to PGY-1 Internal Medicine Residents. These sessions were delivered in small group settings during outpatient didactic time. Sessions were a blend of case-based and didactic learning with small group discussion.

SESSION 1 OBJECTIVES:

1. Provide examples of how stigmatizing language in medical documentation can affect patient outcomes
2. Identify stigmatizing language within one's own clinical documentation
3. Utilize liberating documentation skills necessary to mitigate racialized bias and advance anti-racist patient care

SESSION 2 OBJECTIVES:

1. Apply structural competency frameworks to patient vignettes
2. Utilize liberating documentation skills necessary to mitigate racialized bias and advance anti-racist patient care
3. Generate individualized strategies for your own documentation to promote anti-racism

EVALUATION PLAN: A pre- and post-test were administered to assess for changes in knowledge and attitudes. A plan for chart review was also submitted to assess for changes in behavior regarding stigmatizing language as well. Pre- and post-tests were compared using a paired t-test to assess for immediate knowledge retention post-intervention.

SUMMARY OF RESULTS: Specifically, our participants had statistically significantly increased knowledge, skills, and attitudes about cognitive biases ($P<0.011$), impacts of racism on medical care ($P<0.019$), and impacts of negative language on patient outcomes ($P<0.05$) as analyzed with paired t-tests. That being said, our analysis of behavior change in decreasing the frequency of stigmatizing language in charting did not show a significant difference between the pre-didactic and post-didactic periods.

REFLECTIVE CRITIQUE: The lack of statistically significant reduction in the post-didactic documentation is likely related to relatively infrequent use of this language at baseline. This suggests that the cohort understood the importance of never using this language before the intervention. Further, the skills taught in the didactic

ABSTRACT #14 (CONT.)

curriculum focused on the holistic use of language and evaluating charting for specific terminology and the subtle differences that can be conveyed through charting ("dog-whistling"). An appropriate analysis of this would require natural language processing, which is outside of the scope of expertise of the team.

ABSTRACT #15

INCREASE IN CRANIOMAXILLOFACIAL CASE VOLUME WITH THE INTRODUCTION OF GENDER AFFIRMING SURGERY CURRICULUM: RESULTS FROM A SINGLE INSTITUTION

Daniel Guerra, Olachi Oleru, Abena Gyasi, Peter Shamamian, Nargiz Seyidova, Peter J. Taub

PURPOSE AND GOALS: As gender affirming care is becoming more available to both patients and providers, many plastic and reconstructive residency programs are incorporating gender affirming surgery rotations into their curriculum. The purpose of this study is to quantify the change in case volume as a result of including gender affirming surgery in resident curriculum.

METHODS: Following IRB approval, de-identified case logs from all PRS residents at the authors' institution were analyzed from 2013 to 2022. Only case logs from residents who had completed the full six-year program were used, and only surgeries classified as "Craniomaxillofacial Reconstruction" or "Head and Neck Aesthetic Deformity" (CMF/HN) were considered during analysis. The latter includes cases such as facelifts, browlifts, blepharoplasties, rhinoplasties, and other aesthetic deformities in this category.

EVALUATION PLAN: Case volume was compared before and after 2017, the year that gender affirming curriculum was incorporated at the authors' institution. Averages were calculated based on the number of residents present during each individual year.

SUMMARY OF RESULTS: From the years 2013 to 2016, the average CMF/HN case number per resident per year, respectively, was 4.5, 12.5, 24.3, and 26.8; this leads to a yearly average of approximately 17 cases during this time. From the years 2017 to 2021, the average CMF/HN case number per resident per year, respectively, was 44.5, 42.8, 13.5, 26, and 19; this leads to a yearly average of approximately 29 cases during this time. The yearly average case number increased by 71% after the curriculum change in 2017. Each resident saw a 30% average increase in yearly CMF/HN cases after the curriculum change.

REFLECTIVE CRITIQUE: This study revealed that the inclusion of transgender patients in the PRS residency curriculum increased the residents' exposure to surgeries that included craniomaxillofacial reconstruction or head and neck aesthetic deformities. Based on the data, the average resident would have doubled their exposure to these types of procedures after the curriculum change. Further studies may observe how similar changes at other institutions have impacted resident exposure to CMF/HN, and other cases, and address limitations such as concurrent curricular and institutional changes and the trends of other types of operations. A difference in difference analysis would reveal if we can attribute the CMF/HN case number increase to the inclusion of gender affirming surgery curriculum. Residency programs should be aware how vital this curriculum is towards training the next generation of PRS physicians to be prepared and knowledgeable on how to help their transgender patients and any patients with CMF/HN needs.

ABSTRACT #16

ASSESSING THE EFFICACY OF A POINT-OF-CARE ULTRASOUND CURRICULUM DELIVERED VIA A TWO-WEEK ELECTIVE

Errol C. Moras, Keshav Dixit, Kruti D. Gandhi, Adam Rothman

PURPOSE AND GOALS: Point of care ultrasound (POCUS) is an invaluable tool that can facilitate rapid clinical decision- making, minimize costs, reduce procedural complications, and shorten hospital length of stay. Despite the benefits of POCUS, its use among internal medicine residents remains limited as there are no standardized methods for appropriate training within residency programs and there are few ultrasound experts able to oversee this education. This study aims to assess the efficacy of a POCUS elective within an internal medicine residency program.

METHODS: Starting in July 2023, we expanded and standardized a two-week POCUS elective based in a medical intensive care unit at a New York City hospital and offered it to any interested resident. Over the two weeks, resident learners completed pre-elective and post-elective surveys, a series of small group didactic sessions conducted by POCUS experts, extensive directly observed hands-on training, and image interpretation discussions.

EVALUATION PLAN: For the subsequent data analysis, we calculated effect size as the percentage of correct responses and used Statistical Package for the Social Sciences (SPSS), with a statistical significance level set at $p \leq 0.05$.

SUMMARY OF RESULTS: 28 residents participated in the elective over the first part of the academic year, with all of them completing the pre-elective survey, and 21 of them completing the post-elective survey. Resident learners reported increased comfortability with all variables assessed, with 100% of residents feeling comfortable with probe identification, adjustment of depth/gain, and lung views post-elective. The largest increase in comfortability was noted with abdominal views (7.4% pre-curriculum vs 95% post-curriculum), while deep vein thrombosis (DVT) assessment remained the most challenging. There were statistically significant improvements in many normal anatomical findings in basic cardiac, abdomen, and thoracic ultrasound. There were also statistically significant improvements in the identification of various pathologies: pericardial effusion (46% to 90%), right ventricular pressure overload (36% to 71%), absence of lung sliding via M-mode (7% to 76%), and presence of ascites (54% to 86%).

REFLECTIVE CRITIQUE: This study revealed that over the two-week elective, there were statistically significant improvements in comfortability of image acquisition and accurate interpretation of both normal and pathologic POCUS findings. This highlights the potential for a POCUS elective serving as foundational training for internal medicine residents interested in becoming POCUS experts. Additional studies are needed to see how well the resident learners retain these skills and information over time, and whether the implementation of a POCUS elective impacts clinical practice.

ABSTRACT #17

THE EVALUATION OF RACIAL AFFINITY CAUCUSING ACROSS THREE RESIDENCY PROGRAMS AS PART OF ANTI-OPPRESSION CURRICULUM

Radeeb Akhtar

PURPOSE AND GOALS: Systemic racism has had, and continues to have, profound impacts on diagnosis and health outcomes of many health concerns such as maternal mortality, cardiac issues, and mental illness. Individual bias can also be identified in healthcare interactions everyday. Applying relevant interventions during graduate medical training offers a critical time to examine and reduce implicit bias. As more programs continue to work on anti-oppression curricula and combating bias in existing systems, this study looks at implementation and impact of racial affinity caucusing.

METHODS: Racial affinity caucusing is a longitudinal series using affinity groups to confront and address racism, including background, skills-building, and self-reflection. Local equity champions were trained as facilitators to lead small groups on race and racism. We implemented this method across three residency programs. Residents were surveyed on impact of intervention, support and belonging, and wellbeing. These were sent out prior to implementation and 6 months. Questionnairres were measured categorically, likert scales, or qualitiative answers.

EVALUATION PLAN: Survey data range from qualitative information, categorical to likert scales. We evaluated individual questionnairres based on content and type of answer. This resulted in percentages or majority/minority assessments.

SUMMARY OF RESULTS: Racial caucusing was conducted for over 60 residents and faculty. A total of 21 survey responses were received, about half from residents. Data shows greater than 50% of individuals found caucusing meaningful and that it has influenced the way they practice medicine. Support and Belonging data show all chose 5 or higher for “I know that people in my life accept and value me”, highest being Very Accurate; All chose 5 or higher in “There are people I can depend on to help me if I really need it”, highest being Strongly Agree. Just about 50% of respondents indicated they feel comfortable in reporting instances of racism - A lot or Quite a bit. Wellbeing data shows 66% chose 7 or greater expressing how satisfied with life as a whole they are, highest being Competely Satisfied. Qualitative answers show good understanding of racial caucusing. Categorical data shows vast participation of caucusing and other curricular components to anti-oppression teaching.

REFLECTIVE CRITIQUE: Implementation of anti-oppression educational interventions across three residency programs is feasible and creates impact that residents and faculty not only believe is imperative, but also see it change the way they practice medicine. Limitations to this study include the small survey response compared to the many that participated in the groups, particularly fewer residents. The study does not analyze specific racial groups, gender, or age. We measures only self-reported data. Further longitudinal research is needed, and will be tracked over time as this intervention progresses.

ABSTRACT #18

POINT-OF-CARE ULTRASOUND (POCUS) CURRICULUM FOR INTERNAL MEDICINE RESIDENTS: A NEEDS ASSESSMENT

Sophie Sohval, Megan D'Andrea, Dana Lew, Michelle Nanni, Rita Malley, Aarti Rao, David Eshak, Yoland Philpotts

PURPOSE AND GOALS: Point-of-Care Ultrasound (POCUS) has become an increasingly popular and effective diagnostic tool for inpatient practitioners. However, no formal POCUS curriculum currently exists for Internal Medicine (IM) residents at MSH. We conducted a needs assessment to analyze IM residents' comfort in performing POCUS, how often it's utilized among residents, and interest level in developing POCUS skills. This information was used to create a formal POCUS curriculum for MSH IM residents.

METHODS: An eight-question survey was distributed to all current MSH IM residents in June 2023. The survey was designed to assess resident comfort level surrounding POCUS, frequency of POCUS utilization, and interest in more formal POCUS training as part of the IM residency program.

EVALUATION PLAN: A formal POCUS curriculum was developed based on this needs assessment. The curriculum includes a lecture followed by hands-on practice with an ultrasound stimulator. The full curriculum will launch in Spring 2024 at the Bronx VA and will be delivered by ICU staff and chief residents. Residents will be given a pre-intervention and post-intervention survey to assess comfort level with performing POCUS and objective knowledge. Pre- and post- intervention surveys will be compared in order to evaluate the efficacy and impact of the curriculum.

SUMMARY OF RESULTS: There were 52 respondents to the needs assessment: 23 (44.2%) PGY1s, 26 (50%) PGY2s, and 3 (5.8%) PGY3s. Of all respondents, 93% agreed or strongly agreed that the MSH IM Program needs more POCUS training, and 34% of respondents felt uncomfortable performing POCUS. When asked specifically about cardiac ultrasound skills, only 30% of respondents answered that they felt comfortable finding all four cardiac views; 35% of respondents felt confident finding the inferior vena cava; 28% felt comfortable assessing volume status. Of note, 68% of respondents use ultrasound zero times per week on general floors rotations. Utilization was higher in the ICU setting, however; 83% of respondents reported POCUS utilization at least 1-2 times per week in the ICU. When asked where would be the best place to practice POCUS, 66% of respondents selected an ICU rotation (MSH or Bronx VA ICU).

REFLECTIVE CRITIQUE: This needs assessment revealed that the majority of residents believe the program needs more formal POCUS training. Most residents feel unprepared to perform a cardiac POCUS assessment, which is one of the most relevant applications of POCUS in the IM setting. This reflects an unmet need to train residents in a crucial skill.

ABSTRACT #19

DEVELOPMENT AND IMPLEMENTATION OF A FELLOWS AS TEACHER CURRICULUM FOR GERIATRICS FELLOWS

Ana Sofia Rivero, Laura Belland, Helen Fernandez, Ravishankar Ramaswamy

PURPOSE AND GOALS: For geriatric medicine fellows, becoming a Big "G" geriatrician carries with it a responsibility to teach other clinicians how to care for older adults (little "g"). A fellow-led interactive skills session on geriatrics psychomotor skills had been built into the Ambulatory Care-Geriatrics clerkship for third-year medical students, but few fellows were volunteering to teach. We hypothesized that one reason may be lack of confidence in their teaching skills due to insufficient training on how to teach. Indeed many fellowships lack formal teaching curricula. Moreover, fellows are infrequently formally assessed when teaching and seldom receive feedback about their teaching skills. We sought to develop and implement a teaching curriculum for our geriatric medicine fellows with a particular focus on direct observation with feedback to help improve fellows' teaching skills.

METHODS: After conducting a needs assessment, we launched the curriculum at the beginning of academic year (AY) 2021-2022. All first and second year geriatrics and integrated geriatrics and palliative medicine fellows attended a 60- minute Train the Trainer workshop where fellows were taught how to teach a skills session. Fellows also received detailed teaching guides and handouts for their students, and were offered elective one-on-one mentoring prior to teaching a session. Fellows were then assigned to teach during protected time to ensure availability. A faculty member directly evaluated fellows using a validated tool for assessment of clinical teaching. Immediate feedback was given to fellows following a session. A baseline questionnaire at the beginning of the AY and a post-session survey assessed change in fellows' confidence and overall opinions of the program.

EVALUATION PLAN: N/A

SUMMARY OF RESULTS: Twenty fellows completed the baseline questionnaire which revealed that the majority felt uncomfortable teaching a geriatrics assessment. Over the course of the AY, 18 fellows taught at least one skills session to a total of 132 medical students. Eleven fellows completed a post-session survey rating the effectiveness of the program in improving their teaching skills: 36% found the program to be extremely helpful, 38% very helpful, and 28% somewhat helpful. Regarding the feedback that fellows received, 27% found it to be extremely helpful, 55% very helpful, and 18% somewhat helpful.

REFLECTIVE CRITIQUE: Our development and implementation of a Fellows as Teachers program was well-received and successful in helping to improve fellows' teaching skills. A particular strength of the program is the ability to directly observe a fellow teaching and provide specific feedback. A limitation is self-reported outcomes. Future plans include having fellows teach multiple sessions throughout an academic year to objectively measure the effect of the program on teaching skills.

ABSTRACT #20

CREATING A NOVEL CURRICULUM ON CARDIAC DEVICES FOR INTERNAL MEDICINE RESIDENTS

Soumya Gupta, Priya Shah, Kristen Carter, Asish Correa

PURPOSE AND GOALS: The aim of teaching residents about cardiac devices is to equip them with knowledge for evidence-based care, thereby enhancing patient outcomes and safety. We are creating a focused curriculum covering pacemakers, cardiac monitoring devices, and mechanical circulatory support devices. Using infographics, we'll break down key aspects to efficiently convey crucial information and empower residents in clinical practice.

METHODS: Following the Kern method of curriculum development, we performed a needs assessment of internal medicine residents via an electronic survey to assess current knowledge of cardiac devices and identify the areas of gaps in knowledge.

EVALUATION PLAN: The needs assessment survey identified knowledge gaps, paving the way for a targeted intervention. Subsequently, a didactic session will be conducted to familiarize residents with the key concepts. Within this session, residents will be introduced to three infographics, each dedicated to a key topic - Pacemakers, Cardiac Event Monitors, and Mechanical Circulatory Support Devices. To reinforce understanding, a post-session questionnaire will be administered. Additionally, the infographics will be distributed for easy review, promoting sustained comprehension. Supplementary learning resources, including videos, podcasts, and articles, will be accessible on the Chiefs website, ensuring residents have comprehensive materials at their disposal for continuous education.

SUMMARY OF RESULTS: Among the 27 internal medicine residents who participated in the needs-assessment questionnaire, results revealed varying levels of knowledge. Notably, only 33.3% demonstrated understanding of lead placement in different types of pacemakers, while 59.3% showed proficiency in identifying a defibrillator on a chest x- ray. The lowest knowledge was observed in criteria for CRT-D implantation in heart failure patients, with a mere 18.5% accuracy. In terms of cardiac event monitoring, 44.4% correctly identified the appropriate device.

Understanding the mechanism of action of intra-aortic balloon pumps was demonstrated by 61.5%, yet only 29.6% could identify contraindications. On a positive note, a majority (81.5%) exhibited knowledge of the mechanism of action of Impella. These findings underscore the need for targeted education and emphasize areas requiring focused attention in our curriculum.

REFLECTIVE CRITIQUE:

While we do feel this needs assessment identified a knowledge gap in cardiac device education, it did have some limitations. The response rate was lower than expected, which could be due to the fact that the survey contained multiple complex questions and the residents were experiencing survey fatigue. Additionally, the results may not be representative of the entire residency program as residents who are interested in cardiology and have done multiple elective rotations on cardiology may have been more interested in completing the survey which would result in a higher knowledge of cardiac devices than residents not as familiar with cardiology topics.

ABSTRACT #21

NEEDS ASSESSMENT OF NEUROMUSCULAR AND ELECTRODIAGNOSTIC CURRICULUM FOR NEUROLOGY RESIDENTS

Luke Kiefer, Michelle Fabian, Michelle Kaku, Laura Stein

PURPOSE AND GOALS: Mount Sinai neurology residents have expressed a lack of neuromuscular knowledge in past informal feedback sessions. ACGME milestones posit that residents be proficient in utilizing and interpreting electrodiagnostic studies by graduation. Additionally, board examinations test neuromuscular disease knowledge and electrodiagnostic interpretation regardless of planned subspecialty. This project aims to characterize current neuromuscular education needs, identify areas for improvement, and determine an effective curriculum intervention for our training program

METHODS: We designed a needs assessment of curriculum satisfaction, current methods of learning, and perceived neuromuscular medicine knowledge. Current PGY-2 through PGY-4 residents were surveyed about perceived ability to interpret nerve conduction/electromyography (NCS/EMG) reports as well as the desire for increased education using Likert scale questions. Surveys were anonymous and voluntary and administered via Google Forms.

EVALUATION PLAN: Survey results were analyzed with descriptive statistics. Analysis is ongoing, but survey results will inform the curriculum intervention and assessment, planned for implementation during the 2024-2025 academic year.

SUMMARY OF RESULTS: At the time of analysis, 18 of 29 eligible residents (62%) completed the needs assessment (PGY-2 n=7, 39%; PGY-3 n=7, 39%; PGY-4 n=4, 22%). Satisfaction with neuromuscular education was reported as very unsatisfied (n=10, 56%), unsatisfied (n=6, 33%), or indifferent (n=2, 11%). The majority reported poor (n=8, 44%) or below average (n=8, 44%) neuromuscular knowledge. Most residents admitted poor (n=11, 61%) or below average (n=6, 33%) ability to interpret an NCS/EMG report.

Most residents reported needing much more (n=7-12, 39-67%) or more (n=6-10, 33-56%) time allotted for neuromuscular education. Desire for more education time was highest for NCS/EMG interpretation (n=12, 67%). Residents most preferred learning during a dedicated rotation (n=18, 100%) through assessments/questions (n=15, 83%), case-based learning (n=14, 77.8%), and direct clinical experience (n=14, 77.8%).

REFLECTIVE CRITIQUE: These results support the need and desire for a neuromuscular curriculum intervention. We plan to introduce question and case-based learning modules via web platform with focus on interpretation of routine aspects of electrodiagnostic studies. The curriculum will be synchronous with the existing clinical neuromuscular rotation, occurring once in PGY3 and PGY4 year.

This survey has only incorporated Kirkpatrick level one learning objectives. To better demonstrate educational impact, assessment of higher levels of learning objectives will be necessary with the curriculum intervention, and preferably with validated assessment tools.

ABSTRACT #22

PEER-FACILITATED MOCK ORAL BOARD CASE CONFERENCE TO PREPARE FOR EM BOARD EXAMINATIONS

Elizabeth Yim, Jeena Moss, Edward Diaz, Christopher Richardson

PURPOSE ANDGOALS:

The Mount Sinai Morningside-West Emergency Medicine (MSMW EM) Residency implements monthly Case Conference during academic conference time to increase exposure to the oral boards format. Currently, residents present cases to a peer informally and with high variability. Our Annual Program Evaluation and ACGME Survey response data identified oral boards exposure and preparedness as needing improvement. We propose a case preparation template and presentation style reflective of oral board examinations. We aim to increase exposure to and familiarity with the oral board exam format through near-peer learning.

METHODS:

We performed a targeted needs assessment gauging residents' comfort level, familiarity, and confidence in completing oral boards cases. Each resident's response was anonymized with a unique identifier. We held a Virtual Mock Oral Boards Day, where each resident completed a timed mock oral board assessment to serve as pre- intervention data. Faculty examiners evaluated residents' ability to perform a systematic history and exam, perform critical actions, and determine appropriate disposition. These criteria were used to rate residents' overall performance as "very acceptable", "acceptable", or "borderline/unacceptable." We then introduced the proposed intervention, the case template, via email and an in-person presentation. For the remainder of the academic year, residents assigned to Case Conference will prepare cases by completing the template and identifying critical actions pertinent to the case. Residents will deliver cases in the style of the oral board examination, giving only data specifically elicited by the examinee.

EVALUATION PLAN: In Spring of 2024, a post-intervention questionnaire will be sent out to compare self-rated levels of preparedness and exposure to oral boards format. Faculty-rated evaluations of residents will also be compared pre- and post-intervention to compare residents' performance during another structured Virtual Mock Oral Boards assessment.

SUMMARY OF RESULTS: Forty-two of the 60 residents in the MSMW EM residency responded to the pre-intervention survey. 40.5% of participants felt case conference occurred too infrequently during weekly conference. 45.3% of residents did not feel confident identifying critical actions in oral boards cases. During Virtual Mock Oral Boards in November 2023, 43 out of 60 residents were evaluated by faculty. One quarter of residents' performances were deemed "borderline/unacceptable" for standard oral boards cases.

REFLECTIVE CRITIQUE: The study's strengths include introduction of an easily replicable intervention to standardize case preparation, resident and faculty evaluations, and use of subjects as their own control pre- and post-intervention.

Limitations include low interrater reliability of faculty evaluations, subjective data about resident attitudes, and limited understanding of specific oral board grading criteria.

ABSTRACT #23

ADVANCING EQUITY BY ENHANCING PREVENTIVE MEDICINE TRAINING: A HEALTH EQUITY, LITERACY, AND COMMUNICATIONS COURSE

Betty Kolod, Alyssa Gale, Maya Korin, Kristin Oliver

PURPOSE AND GOALS: The Mount Sinai Public Health and Preventive Medicine Residency is a two-year trainining program for physicians who seek non-traditional careers that incorporate clinical prevention, population health, public health research and practice, and health policy. There are 3 physicians in each residency cohort.

We sought to formalize our health equity curriculum, as a component of a project funded by the Health Resources and Services Administration to grow, diversify, and prepare the preventive medicine workforce to adress health inequity.

We proposed a 15-hour course on health literacy, public health communication, and quantitative skills to characterize health inequities, to train residents to address health inequities in East Harlem through culturally and linguistically appropriate communication, and a social determinants of health lens.

METHODS: We completed a literature review of existing courses and selected the key topics to be covered in our course. We then created a syllabus of lectures on barriers to health literacy and importance of including health literacy in health equity work, health equity in clinical care, Federally Qualified Health Centers (FQHCs) as a tool for health equity, risk communication, and quality improvement as a tool to address systemic racism. Additionally, we created workshops on health literacy in harm reduction, representation in the healthcare workforce, and community-led advocacy, the latter two in conjunction with the Mount Sinai Department of Health Education Public Health and Racial Justice Program (PHRJP), an innovative education and empowerment program for youth of color ages 16–24 years.

EVALUATION PLAN: We administered a 10-question, mixed methods evaluation shortly after the course. This tool quantitatively asessed the perceived educational value of each session, and collected qualitative data on highlights of the course and ideas for improvement.

SUMMARY OF RESULTS: Six preventive medicine residents, 2 occupational medicine residents, and 2 medical student summer research fellows completed the course. On a scale from 1 to 5, with 1 being the least valuable and 5 being most, sessions were rated an average of 4.2. Highlights were collaboration with PHRJP and learning about FQHCs, and workshops on advocacy and the use of fentanyl test strips. Learners requested more active learning time and structure in the course.

REFLECTIVE CRITIQUE: Learners considered the course valuable but it is unclear if they gained practical health equity skills. The next iteration of the course, now approved as a credit-bearing Master of Public Health course, will challenge learners to use publicly-available datasets to identify a health inequity, to conduct a literature review of that problem and attempted interventions, and to propose a direction for a new health equity intervention. Further, collaboration with PHRJP will be more longitudinal and intentional to enhance both PHRJP mentorship and learner investment in racial justice.

ABSTRACT #24

DEVELOPMENT OF NOVEL NEUROANATOMY EDUCATION TOOL

Ilana Green, Stephen Krieger, Michelle Fabian, Laura Stein

PURPOSE AND GOALS: We sought to enhance the neurology resident neuroanatomy curriculum by developing and implementing a novel curricular tool tailored for neurology residents.

METHODS: An audio-recorded focus group of six residents (two from each categorical year) was held to assess perceptions of the existing neuroanatomy curriculum and feedback on a proposed curricular tool. This tool consisted of a personalized form with free-text responses to document HIPPA-compliant information about a recent clinical encounter including a brief "one-liner," relevant exam findings, neuroanatomical localization differential, and memorable (but non-identifiable) aspect of the case (ex: patient had pink hair). This information auto-populated into a spreadsheet where residents could add additional learning points. We piloted the personalized neuroanatomy atlas in our training program during the fall of 2023. Each resident in the neurology program was sent a personalized email with instructions on how to use the tool and integrate it into their workflow.

EVALUATION PLAN: The audio recording from the focus group was transcribed and analyzed for themes in responses. Preliminary results of the curricular tool pilot were analyzed for frequency of utilization, and the resulting content was analyzed for themes.

SUMMARY OF RESULTS: Focus group participants expressed dissatisfaction regarding their neuroanatomy knowledge, with multiple individuals citing that most of their knowledge comes from undergraduate or medical school education. The majority of participants shared that they learn neuroanatomy on a case-by-case basis and their most commonly used information sources are websites found on internet search engines. Participants liked that the data entry component of the tool was simple and fast, and they also liked the idea of linking their learning to their own experiences with patients. Their concerns about the tool were that a lack of accountability would limit the accuracy of what they were learning as well as the consistent utilization of the tool, and that the absence of identifying information would preclude them from following up on cases. Between July 2023 and October 2023, only two out of 30 residents made an entry in the form. Each of those residents made one entry, which included less detail than suggested in the instructions.

REFLECTIVE CRITIQUE: Despite neurology resident dissatisfaction with their neuroanatomy knowledge, perceived absence of a neuroanatomy curriculum, and tendency to learn neuroanatomy in a self-directed, case-based way via the internet, utilization of the electronic case-based neuroanatomy education tool was extremely poor. The limited use is likely multifactorial, with major contributors being lack of time and accountability structure. Future implementation of this tool would likely benefit from protected time to utilize the tool, built in accountability measures such as a platform to discuss cases (implementation of "neuroanatomy rounds"), positive reinforcement for number of cases logged, or a gamification component.

ABSTRACT #25

ONCOLOGY CURRICULUM FOR INTERNAL MEDICINE RESIDENTS

Sophie Sohval, Rima Patel, Wang Xuejun, Eileen Scigliano, Angus Cheung, Vasundhara Singh

PURPOSE AND GOALS: Internal medicine (IM) residents frequently serve as the front-line providers for cancer patients admitted to the hospital and should therefore be comfortable managing common oncologic issues. Despite this, no formal hematology/oncology curriculum for IM residents currently exists within the Mount Sinai Health System. The goal of this project was to create a case-based oncology curriculum for IM residents with the goal of harnessing both knowledge on and comfort-level with the subject matter.

METHODS: On prior needs assessment, topics in which residents reported lack of comfort in management included several hematologic/oncologic emergencies, side effects of chemotherapies and immunotherapies, and how to work up a new concerning mass. Based on this data, a six-part lecture series was created, with topics including: hematology/oncology emergencies, neutropenic fever management, basic principles of immunotherapy, basic principles of chemotherapy, overview of solid oncology nomenclature, and work-up of a new mass concerning for malignancy. These lectures have been delivered by Hematology/Oncology Fellows to Mount Sinai West (MSW) IM Residents during their Hematology/Oncology floor rotations in small groups beginning Summer 2023. Lectures are case-based, containing 3-4 cases each, and are approximately 30-45 minutes in duration.

EVALUATION PLAN: Surveys are administered to residents before and after each lecture. Each survey assesses level of interest in the field of oncology, comfort level with medically managing the topic discussed in the lecture, level of experience within oncology (i.e. prior number of oncology rotations), and PGY level. The surveys also each encompass three knowledge-based questions to assess the lectures' educational efficacy and impact. Two-sample t- tests were used to compare resident comfort level before and after each lecture.

SUMMARY OF RESULTS: A total of 50 pre-lecture responses and 51 post-lecture responses were received across all lectures. Attendees felt significantly more comfortable with the subject matter after the lecture compared to before the lecture ($p<0.0001$). We plan to conduct further analyses with paired t-tests to compare results before and after each lecture. This data will include individual comfort levels before and after each lecture as well as number of correct responses to knowledge-based questions before and after each lecture. This will be a more robust statistical analysis and give a better sense of educational impact among each lecture topic.

REFLECTIVE CRITIQUE: While the analysis thus far was statistically significant, we primarily investigated resident comfort levels across all lecture topics in order to increase the study number. Evaluating comfort levels before and after individual surveys would provide better information on the impact of each lecture. Further, completing the survey directly before and after each lecture may have introduced bias in which attendees felt compelled to report higher comfort levels immediately after lecture.

ABSTRACT #26

DEVELOPMENT OF A NEUROLOGY RESIDENT OUTPATIENT CURRICULUM

David Daniel, Ilana Green, Laura Stein, Michelle Fabian

PURPOSE AND GOALS: We sought to develop a neurology outpatient curriculum using one-page infographics guides aimed at helping residents approach commonly encountered chief complaints.

METHODS: A focus group with seven residents was held to evaluate current gaps in the neurology outpatient curriculum and to compile the top chief complaints that posed a challenge to residents. Guides were created for five of these chief complaints using validated neurology resources such as Continuum as well as feedback/review by neurology faculty. These guides are planned to be introduced during noon conference sessions and be included in the Neurology Resident App for easy accessibility during clinic visits.

EVALUATION PLAN: Pre- and post-intervention knowledge-based assessments were created using validated board review style questions to assess baseline knowledge and subsequently evaluate the efficacy of the intervention. Likert scale surveys were designed to assess pre- and post-implementation comfort with the chief complaints and utilization of the guides during clinic encounters or free time.

SUMMARY OF RESULTS: Focus group participants expressed dissatisfaction with the current state of outpatient neurology education since most of clinical training is dedicated to the inpatient setting. They noted clinic challenges related to the volume of patients, lack of time, and lack of knowledge about management of frequented outpatient issues. The top chief complaints identified included Epilepsy, Headache, Parkinson's, Tremor, Back Pain, Neuropathy, Dementia, Vertigo, Functional Neurologic Disorder, Demyelinating Disease. Pre-test results showed that all subspecialties scored below 60% on average except for vertigo, with the highest score being vertigo with 92% and the lowest being neuromuscular with 46%. Post-test will be performed near the end of the academic year following the introduction of guides.

REFLECTIVE CRITIQUE: One major issue that affected the timely launch of the intervention was poor resident participation on the pre-test. The lack of incentive made it difficult to get resident buy-in and an adequate completion rate of the evaluation. Future implementation of a similar tool should prioritize providing a financial incentive which may boost participation. Another issue that affected this project is scalability. Since each guide requires several hours for research, content,and design, it would be helpful enlist the assistance of other residents to increase output and cover a wider range of topics. However, it is vital that the guides are created by residents to improve its usefulness to the intended audience.

ABSTRACT #27

EVALUATION OF A DATA ANALYSIS VIDEO CURRICULUM CREATED FOR RESIDENTS AND FELLOWS

Nadeem Bilani, Mantej Sehmbhi, Georgina Osorio

PURPOSE AND GOALS: In academic medicine, knowledge acquisition often occurs through asynchronous learning. We previously assessed the need for a data analysis curriculum for trainees within our health system.

METHODS: In 2022, the Research and Scholarly Work Council created an anthology of minutes-long video demonstrations in basic data analysis for clinical research using the Statistical Package for the Social Sciences (SPSS) software. This curriculum discusses data handling, cleaning, analysis and interpretation, and was introduced to the Internal Medicine cohort in 3 once weekly workshops in May 2023 after being made available for access and independent viewing on the Mount Sinai shared drive.

EVALUATION PLAN: This abstract presents data from a 10-question survey, including both qualitative and quantitative measures, used to assess perceptions towards this virtual statistics curriculum. Univariate statistics are used to describe the quantitative results from this survey.

SUMMARY OF RESULTS: A total of n=23 internal medicine residents participated in this survey. N=5 (21.7%) were first- year residents, followed by n=9 (39.1%) second-year, and n=9 (39.1%) third-year residents. On a 5-point Likert scale ranging from 1 ('Not Important') to 5 ('Extremely Important'), n=12 (50%) rated the importance of data analysis skills for residents as 5, n=7 (29.2%) rated 4, and n=4 (16.7%) rated 3. The majority (n=10, 43.5%) first learned of this curriculum through program didactics, while a minority discovered in conversation with peers (n=6, 26.1%), or during research council meetings (n=3, 13.0%). When asked to describe their use of this curriculum, n=8 (34.8%) of responders reported "Successful" use, n=4 (17.4%) reported "Limited Success" in use, n=0 (0%) reported "Unsuccessful" use, while n=11 (47.8%) reported "No Use Yet". Despite this limited uptake, the majority reported being "Very Likely" (n=8, 34.8%) or "Somewhat Likely" (n=8, 34.8%) to use this SPSS curriculum in the future. Of those that reported use (n=12), n=6 (50%) reported use "to independently run analysis on a research study", while n=4 (30%) reporting use to "to assist in data analysis for a research study". Others (n=2, 16.7%) reported use "for education purposes". In recommendation for how to disseminate this curriculum further, n=14 (60.9%) responders suggested "incorporation into didactics", n=7 (30.4%) suggested "as required use during research electives". N=2 (8.7%) suggested transitioning the platform from the Mount Sinai shared drive to another location, such as YouTube.

REFLECTIVE CRITIQUE: When given the opportunity for asynchronous learning of medical statistics, a significant proportion of trainees are able to apply this to independently run, or assist in running, analysis for research projects. Increased uptake of such a curriculum might be gained by implementation into required academic time for trainees as well as through increased visibility and accessibility.

ABSTRACT #28

HEART FAILURE AND TRANSPLANT CARDIOLOGY RESIDENT EDUCATION

Ankitha Radakrishnan, Nausheen Singh, Phil (Seokyu) Shin, Aarti Rao, Matthew Cagliostro

PURPOSE AND GOALS: Heart failure (HF) is one of the most common causes of hospital admission in the United States, accounting for over one million admissions yearly. As such, internists should feel comfortable caring for patients with HF and those who have received orthotopic heart transplants (OHT). Medicine residents often express a lack of confidence in managing these patients, as reflected by the in-service training exam (ITE) scores that have consistently been below the national average. Residents scored in the 52nd percentile in cardiology, with 47% proficiency in "Treating a euvolemic patient with HF and reduced ejection fraction" and 66% proficiency in "Treating HF with reduced ejection fraction with ß-blocker to therapy." This study aims to gain a better understanding of resident self-reported knowledge gaps and ultimately identify means to improve resident knowledge and confidence in managing patients with HF and OHT.

METHODS: The study team anonymously surveyed internal medicine residents who have rotated through the cardiology teaching service at the Mount Sinai Hospital starting July 1, 2023. Residents rated their knowledge and confidence in managing patients with decompensated heart failure and heart transplant on a 1-5 Likert scale, ranging from "poor" to "excellent" or "very uncomfortable" to "very comfortable," respectively.

EVALUATION PLAN: The ongoing survey's preliminary findings will inform the creation of interactive modules and infographics containing high-yield teaching points, which will be distributed to residents on the cardiology service. After using these materials, residents will rate their knowledge and clinical confidence on a post-intervention survey. Additionally, ITE cardiology scores will be compared before and after the curricular intervention.

SUMMARY OF RESULTS: From September 2023 - January 2024, we surveyed 71 residents with a 49% response rate (n=35), with 61% PGY-1, 31% PGY-2, and 8% PGY-3. Residents reported being "comfortable" with HF knowledge (89%), inpatient HF management (77%), and characterizing hemodynamic profiles (89%), and were "uncomfortable" with assessing jugular venous pressure (61%), defining the etiology of a new cardiomyopathy (77%), and post- transplant care (60%). Preferences for educational content include one-pagers and infographics of high-yield teaching points (53%), as well as video lectures (40%).

REFLECTIVE CRITIQUE: These survey responses offer insights into internal medicine residents' comfort with heart failure and post-transplant care. Self-reported knowledge gaps include post-transplant care, assessment of jugular venous pressure, and evaluation of a new cardiomyopathy. To address this need, the study team is developing a series of video modules and infographics to enhance resident education. Ongoing efforts aim to enhance study engagement.

ABSTRACT #29

INITIATION OF ORAL CONTRACEPTIVE PILLS (OCPS) IN A NEW YORK CITY EMERGENCY DEPARTMENT

Paige Rattner, Svetlana Duvidovich, Monica Dragoman, Rachel Solnick, Morgan Bowling

PURPOSE AND GOALS: Across the country, high-quality, accessible family planning services have become increasingly difficult to obtain, particularly for underserved populations and young adults. Historically, contraception counseling and initiation occurs at either a primary care practice or at an outpatient family planning or gynecology office. However, the medical literature supports that patients are amenable to ED-based contraception counseling and interventions. Our pilot program aims to 1) improve ED provider knowledge of contraception options and contraception counseling skills, 2) offer ED-based contraceptive counseling, and 3) initiate same-day OCPs to eligible patients in the ED.

METHODS: Implementation will include a two-pronged approach. The first is focused on education of EM providers on contraception counseling, including a didactic based curriculum on contraceptive options, methods for contraception counseling, identifying eligible patients for OCPs, and selection of OCPs. The second will focus on rollout, including developing and testing an on-shift 'OCP selection decision-tree.'

EVALUATION PLAN: First, ED providers will complete surveys before and after the didactic curriculum intervention to assess provider-satisfaction with the curriculum and perceived self-efficacy on ED-based contraceptive options, counseling, and OCP selection. Second, we will assess if the curriculum intervention leads to changes in clinical practice (e.g. increasing ED-based contraception counseling, initiation of OCPs in eligible patients, and referral for follow up, including for initiation of alternative methods of contraception).

SUMMARY OF RESULTS: Development of the curriculum is ongoing. We hope to begin the intervention mid 2024.

REFLECTIVE CRITIQUE: Our primary objective is to improve ED provider knowledge of contraceptives to allow for safe, effective, and patient-focused expansion of contraception counseling and OCP initiation in the ED. We are implementing this project in a high-volume, NYC ER, which comes with time and capacity limitations. Our aim is to develop a streamlined process for EM providers, including targeted educational materials and in-person training sessions for EM providers, co-developed with our OB/GYN Complex Family Planning colleagues. It will also include an on-shift decision tree specifically for EM providers. Importantly, patients will receive contraceptive counseling on all FDA-approved contraceptives to ensure each patient is making an informed decision about their contraceptive needs. Patients receiving same-day OCPs will be provided with resources for outpatient follow-up and patients who express interest in alternative forms of contraception or additional counseling will be referred to outpatient OB/GYN or Family Medicine. As ERs become an increasingly important setting for preventative medicine and public health interventions, this focused innovation ensures EM providers have the knowledge and skills necessary to effectively and safely expand access to contraception for ER patients.

ABSTRACT #30

DISC PERSONALITY TESTS TO DEVELOP LEADERSHIP SKILLS IN INTERNAL MEDICINE RESIDENTS

Naeha Pathak, Claire Price, Christina M. Cruz, Matthew A. Weissman

PURPOSE AND GOALS: Leadership skills are important for physicians to work with healthcare teams and improve patient care. Despite an ACGME recommendation, only 52 residency programs have established leadership training. Effective leadership requires self-awareness, which requires an understanding of different personalities. The DISC personality test can be used to create standardized leadership training by teaching individuals about their own personality type and how to best communicate with different people. DISC assesses how individuals fit into four domains (Dominance, Influence, Steadiness, and Conscientiousness) and has been shown to improve connections between nursing staff and patients and improve interpersonal communication among surgery residents. Whether that same impact can be delivered to medicine residents in a concise workshop is still to be determined. Thus, we created a curriculum to teach the intersection of personality and leadership styles to internal medicine residents.

METHODS: We asked residents to complete the DISC survey in advance of the workshop. During the session, residents were asked to separate by personality types. Each group discussed: a) how does your personality type help you learn? and b) what challenges of your personality type do you face? Residents then shared their responses with the larger group.

EVALUATION PLAN: We facilitated a discussion of the preferred working styles of each personality type and how to adapt when leading a team and collaborating with members from different styles. For example, when delivering feedback, a D might need to hear feedback in a direct way, while an I might need to be engaged with beforehand. Similarly, when a change in the plan occurs, an S might be best told what to do next, while a C might need an explanation as to why the change was necessary. A survey was given to the residents after the workshop to assess strengths and weaknesses of the workshop.

SUMMARY OF RESULTS: The compositions of the residents were approximately 10% D, 9% I, 46% S, 35% C. This breakdown differed from the national breakdown (3% D, 11% I, 69% S and 17% C), though there is no national subset for physicians. DISC was a useful tool to help residents learn about their own skills and the opportunities and challenges of working with various personality types. In a survey delivered several months after the session, all respondents said they were very, quite, or somewhat prepared and confident to use these skills.

REFLECTIVE CRITIQUE: We established a personality-based training using DISC to identify and develop resident's leadership skills, which was met with a positive response. This approach could be implemented across all residency programs to improve team-building and interpersonal skills. Effects could be far-reaching, including strengthening the physician workforce and patient outcomes.

Future projects could include a longitudinal leadership curriculum and more quantitative surveys of skills.

ABSTRACT #31

ENHANCING THE INTERN YEAR TRANSITION FOR INTERNATIONAL MEDICAL GRADUATES IN INPATIENT SETTINGS: A COMPREHENSIVE CONSORTIUM APPROACH

Jiaxi Miao, Vasundhara Singh

PURPOSE AND GOALS: This project aims to support International Medical Graduates (IMGs) during their critical transition into the intern year, focusing particularly on inpatient rotations. The project envisions a consortium designed to address the unique educational needs of IMGs through a multifaceted approach that includes education, cultural adaptation, mentorship, and wellness support. Project supported by Harvard-Macy institute, and collaborating with University of Wisconsin as a multi-center project launch.

METHODS: The project involves a series of targeted interventions, which includes an online video series that offers introduction to the US healthcare system, covering insurance systems, pharmacy protocols, referral processes, social work dynamics, and interdisciplinary team collaboration. Utilizing simulation labs, IMGs engage in discussions exploring ethical dilemmas within the US healthcare context, addressing cultural nuances. Interactive peer-to-peer workshops focus on honing language proficiency and presentation skills, specifically on the SOAP format for case presentations. Additionally, a podcast series featuring senior IMG residents sharing experiences and strategies to combat imposter syndrome provides valuable emotional support. The initiative also prioritizes community-building by offering mentorship opportunities and group therapy sessions, fostering a supportive environment for IMGs as they navigate the challenges of their intern year.

EVALUATION PLAN: Project evaluation strategies are crucial to ensure the effectiveness of the initiative. Surveys and questionnaires tailored to IMGs' needs, focus groups, interviews, observations by mentors and senior residents, defined performance indicators, and longitudinal tracking mechanisms constitute the evaluation framework. These methods will gauge participant satisfaction, gather qualitative insights, monitor progress, and assess the project's overall impact on IMGs' integration into the intern year.

This comprehensive approach aims not only to facilitate a smoother transition for IMGs but also to acknowledge and harness the valuable skills and perspectives they bring to the medical field. By providing tailored support, educational resources, and fostering a supportive community, this initiative seeks to nurture IMGs, enabling them to excel in their residency training and contribute significantly to the healthcare system's diversity and excellence.

SUMMARY OF RESULTS: The anticipated positive impact encompasses enhanced learning experiences for IMGs, improved patient care, and a more inclusive medical workforce. By addressing language barriers, cultural differences, and educational disparities, this initiative aims to empower IMGs to leverage their diverse perspectives, ultimately contributing to higher-quality patient care delivery.

REFLECTIVE CRITIQUE: The project's scalability should be taken into account, especially if it proves successful. Ensuring that the initiative can be replicated or adapted for different institutions will contribute to its wider applicability.

ABSTRACT #32

PGALS TO SCREEN FOR MSK PATHOLOGY: VALUE OF AN EDUCATIONAL INTERVENTION FOR PEDIATRIC RESIDENTS

Penelope Martinez Jimenez, Tania Lopez Pichardo, Daniel Ibanez

PURPOSE AND GOALS: Despite the high prevalence and burden associated with rheumatic and musculoskeletal conditions, multiple studies have consistently shown that the current workforce of pediatricians possesses poor self confidence in their musculoskeletal physical examination skills, this highlights the urgent need for an educational intervention. Pediatric Gait, Arms, Legs and Spine (pGALS) is a validated evidence-based tool for pediatric musculoskeletal assessment, it has been shown to be practical and useful with excellent acceptability by children and their parents. This project goal is to evaluate the impact of an educational intervention focused on pGALS in the pediatric residents performance screening for musculoskeletal conditions.

METHODS: This will be a single site study, non-randomized, 5 residents of each academic year will join the study. A survey will be administered to participants, evaluating their confidence level in performing screening for musculoskeletal conditions. Participants will be asked to perform a screening for musculoskeletal conditions in standardized patients and their performance will be evaluated using a pre-designed checklist with pGALS steps. A one-hour teaching session through video, slides presentation and modeling of the pGALS screening will be conducted. After the teaching session, participants will be asked to perform a screening for musculoskeletal conditions using pGALS in a standardized patient and their performance will be reassessed with the same pre-designed checklist. Finally, a survey will be administered evaluating participants' confidence level after theworkshop.

EVALUATION PLAN: Surveys to evaluate confidence level will be given to the residents before and after the teaching session. A checklist with each step of pGALS will serve as pre and post-evaluation, before and after the teaching session to assess for participants performance of pGALS. This teaching session is designed to be interactive and practical and residents will have the opportunity to receive feedback to improve theirskills.

SUMMARY OF RESULTS: The project is currently under IRB revision and we plan to start in Early 2024. We expect the impact of the educational intervention to be significant in the level of confidence and performance of the participating residents, we expect this teaching session to be brief and practical and reproducible in other pediatric residency contexts.

REFLECTIVE CRITIQUE: This educational intervention is limited to a one hour unique session that might not be enough to solidify the rheumatology knowledge gaps in the residents, however it will contribute to increase musculoskeletal examination skills that are an essential part for musculoskeletal pathologies screening. This project was led by a general consensus in the published data and not by direct knowledge gaps evaluation in the residency program which may limit its impact. More research should be done to assess for long term retention.

ABSTRACT #33

REVAMPING THE SCREENING AND REFERRAL CURRICULUM RELATED TO SOCIAL DETERMINANTS OF HEALTH AT IMA CLINIC

Cladimar Vasquez, Betty Kolod

PURPOSE AND GOALS: The ACGME requires internal medicine residents to understand system based practices by assessing social determinants and being aware of community resources available to their patients. To address this requirement, our current curriculum contains a yearly lecture that uses cases that highlight social barriers. In order to improve our curriculum, a needs assessment was created to evaluate the effectiveness of this cased based lecture. The purpose of this project was to help create didactic materials that will improve resident's comfort with screening and making referrals to address social barriers.

METHODS: Our needs assessment revealed that internal medicine residents lacked the comfort and knowledge to screen and make referrals for their patients. Based on our evaluation, we created a lecture with our social worker with the goal of having an interdisciplinary discussion around one patient case that reveals basic social domains and resources within East Harlem. We used evidence based medicine to reveal both how health systems have screened for social determinants of health, and the impact on patient outcomes. We also included available resources both in the clinic and within the community. The plan is to deliver these lectures to PGY1 medicine residents during their outpatient rotations at noon conference.

EVALUATION PLAN: During the lecture session, we will administer a voluntary pre and post test survey. The survey will include questions that rate a resident's comfort with identifying social domains as well as making community referrals for food insecurity, housing insecurity, and transportation. We will also test their knowledge on the available resources in the clinic, including the differences in referral to social worker versus care management. We will use these surveys to evaluate the curriculum's effectiveness in reaching our learning objectives.

SUMMARY OF RESULTS: We plan to implement the curriculum at our resident's clinic in Spring of 2024. We expect that the interdisciplinary discussion with our social workers will increase resident's knowledge and comfort with addressing social determinants in our clinic.

REFLECTIVE CRITIQUE: Our needs assessment included a small sample size (n=24) which does not reflect the entirety of our resident's attitudes or knowledge towards screening or making referrals for social determinants. The lecture will also be led by different educators and/or social workers, which can result in varying effectiveness in delivery of the material. Despite these limitations, we foresee that the new curriculum will change our residents' clinical and social management of vulnerable populations.

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ABSTRACT #34

"DO THEY JUST LET ANYONE INTO MEDICAL SCHOOL THESE DAYS?": A MEDICAL STUDENT APPROACH TO NAVIGATING RACIST BEHAVIORS FROM PATIENTS

Chantal Pyram-Vincent, Joanne Hojsak, Joseph Truglio, Laudy Burgos, Carolyn Hutson, Beverly Forsyth

PURPOSE AND GOALS: A facilitated Standardized Patient (SP) session was developed with the goal of providing learners with concrete strategies and resources to navigate racist behavior from patients in a clinical setting.

METHODS: We designed a scenario involving two SPs: one SP portraying a senior medical student and one SP portraying a patient who displays racist behavior towards the student SP. Second year medical students received an introductory panel discussion on the topic within their ASM course and self-selected to participate in the session.

Learners were provided pre-session materials, including suggested language and strategies. The learners entered the scenario as a junior colleague of the student SP and were tasked to respond to racist/biased behaviors exhibited by the patient. These individualized 20-minute sessions were facilitated by one physician and one social worker, who had undergone pre-session faculty development with the two SPs. Students practiced communication skills and strategies using a "time-in, time-out" technique; they could pause the scenario, reflect and discuss with facilitators, then re-enter to try out new techniques. After the initial scenario, students had the option to have the racist behavior directed towards them rather than the student SP. Students received a post-session debrief with the social worker, who screened for re-traumatization and referred to mental health resources if needed.

EVALUATION PLAN: As part of the 2023 ASM course evaluation, learners were required to provide a quantitative response about the session with the option of providing comments. As of 2024, the evaluation will include multiple stakeholders, specifically students of color. Qualitative analysis will be performed to examine: overall impact to the learner, feasibility of application, most useful resources, and detailed information on strengths, areas for improvement, and obstacles.

SUMMARY OF RESULTS: Two physicians and two social work preceptors facilitated all 2023 sessions. Twenty-four second-year medical students participated. Overall, learners rated the session on a Likert scale at 4.3/5. Selected comments from 2023 include:

"I think that was the most significant experience of learning for me this year."

"I appreciated that she [faculty] was in the room with me to give advice and see how things went. I felt like she really cared about me and the class as a whole."

ASM course representatives reported the class felt the session should be mandatory.

REFLECTIVE CRITIQUE: This year, the session will continue to run as an opt-in but will be evaluated independently, separate from course content. This will allow for more targeted evaluations of the program. The program will be scaled up, using lessons learned from previous sessions, and become a mandatory part of the new medical school curriculum. With adaptation of the scenario, we plan to pilot sessions with PGY-1 learners as these skills are critical for all levels of learners and faculty.

ABSTRACT #35

REDUCING BARRIERS TO CAREERS IN OBSTETRICS AND GYNECOLOGY: A PRE-CLINICAL ELECTIVE COURSE

Bethany Dubois, Mackenzie Mitchell, Chloe Getrajdman, Lyba Zia, Katherine T. Chen

PURPOSE AND GOALS: This pre-clinical elective course was developed with a goal of reducing barriers in student exploration of the field of Obstetrics and Gynecology (Ob/Gyn). The course aimed to achieve this goal by offering early exposure to basic obstetric topics, procedural skills, research opportunities, and connections with departmental faculty and residents.

METHODS: The course first built foundational knowledge and context via virtual faculty and fellow delivered lectures on epidemiology and maternal health disparities in NYC, pregnancy physiology, intrapartum care, and intrapartum complications. These were followed by three procedural skills sessions led by faculty, residents, and senior medical students: vaginal delivery simulation, suturing workshop, and cesarean simulation.

EVALUATION PLAN: The course implemented a pre- and post-course knowledge assessment, and additionally a qualitative survey for students who completed the course.

SUMMARY OF RESULTS: 27 students registered for the course, and class attendance varied from 12 to 22. 10 (37%) students completed all surveys. Of students who reported attending more than 5 out of 7 classes (N=8), knowledge assessment scores improved from 52% to 71% correct (p=0.006). Of all respondents, 90% felt more prepared for clerkship, 100% gained procedural skills, 70% felt more prepared to conduct research, and 80% made connections with faculty and residents.

REFLECTIVE CRITIQUE: Pre-clinical exposure is available for many specialties, but opportunities to practice obstetrics- related skills are limited, which can increase discomfort for students approaching their Ob/Gyn clerkship. Offering a pre-clinical elective course improved knowledge of obstetric topics, allowed practice of procedural skills, increased confidence for conducting research, and fostered connections between students, faculty and residents. A limitation of this study is a low survey response rate and varying attendance, which were likely due to the elective nature of the survey completion and course. Efforts to implement and sustain such a course in other institutions may depend on availability of faculty and trainee time. Overall, this course achieved its goal of lowing barriers for students to explore Ob/Gyn. Future research could examine the effect of similar interventions on student preparedness and performance during the Ob/Gyn clerkship.

ABSTRACT #36

APPLICATION OF CRITICAL APPRAISAL ON THE WARDS: A CASE-BASED, STUDENT-DIRECTED WORKSHOP

Robert C. Wharton, Arjun Kapoor, Katherine Godfrey, Rex Hermansen

PURPOSE AND GOALS: Evidence-based medicine (EBM), the application of scientific literature to clinical practice, is a core skill for modern clinicians. Despite its eminent applicability to everyday patient care, EBM is often cited by trainees as a less engaging curricular component. Downstream, it has been noted that application of EBM principles to patient care by licensed health professionals is lacking. The EBM curriculum at Mount Sinai is not integrated into the clinical environment in MS3, representing a missed opportunity for creating a lifelong skill that can be used regardless of specialty choice. We aimed to foster familiary, confidence, and competence in EBM using a case-based, student-directed flipped-classroom workshop.

METHODS: We developed an EBM workshop embedded in the internal medicine clerkship. Students perform a guided exploration through each step of the EBM process, from formulating a clinical question, operationalizing it in the PICO format, and performing a literature search, to summarizing an article and discussing a biostatistical concept therein. Students are provided with a glossary of biostatistical concepts with examples, explanatory text, and links to multimodality further reading. Where available, infographics from Stats with Core IM are referenced. Concepts include the intention to treat principle, noninferiority, power and type II error, stopping trials early, and others.

EVALUATION PLAN: Attitudes towards and confidence in EBM were assessed with an anonymous survey delivered via RedCAP before and after the workshop. Knowledge of EBM was assessed using the ACE tool, a validated instrument with 15 yes or no questions.

SUMMARY OF RESULTS: The study was determined to be IRB exempt as survey data were kept anonymous. Participants' pre- and post-surveys were linked by means of a unique code. A total of 5 students completed the pre- survey. Two students piloted the workshop, of whom one completed the post survey. Students had generally high confidence about their ability to apply EBM concepts; however, the median ACE score was 8/15. The student who completed the post survey increased their ACE score by 1 question and rated the workshop favorably.

REFLECTIVE CRITIQUE: We developed a novel condensed curriculum for self-directed, guided learning in EBM. To our knowledge, this is the first study to evaluate an EBM teaching intervention that is linked to the clinical setting.

Workshop participation, and hence rigorous evaluation of the workshop's efficacy, was limited by student interest. Future studies should explore the factors that mediate student engagement in EBM, given its critical importance in the rapidly evolving medical landscape.

ABSTRACT #37

UNIQUE CONTENT SEQUENCING INFORMED BY STUDENT PERSPECTIVES ON CURRICULUM REDESIGN

Nicola Feldman, Lauren Linkowski, Staci Leisman, Rainier P. Soriano

PURPOSE AND GOALS: Over the past two decades, many United States medical schools have redesigned their curricula, often shortening the pre-clerkship phase. Faculty typically lead these curriculum redesign efforts. ISMMS, in contrast, is undergoing a curriculum redesign that uniquely values student input. Informed by student perspectives, ISMMS made several unique decisions in its curriculum redesign not seen in peer schools' curricula: placing the Step 1 study period before clerkships, covering neurosciences as the first organ system in the pre-clerkship phase, and covering the renal system late in the pre-clerkship phase. These differences from peer schools, with their faculty-led curricular processes, suggest a gap between faculty and student priorities in content sequencing, which was exposed by our special attention to student feedback and addressed by our unique decisions. The goal of this project was to understand the student priorities that affected curricular decision-making at ISMMS, providing insight for other schools on student perspectives and how to elicit them so as to strengthen their own curricula.

METHODS: The literature was reviewed to examine other schools' curricular sequencing, curriculum redesign processes, and rationales for content sequencing. To identify student priorities in ISMMS's process, recordings of curriculum redesign committee meetings were reviewed, as were written resources where committee members contributed feedback. Relevant student comments were analyzed qualitatively to discern themes.

EVALUATION PLAN: The new curriculum at ISMMS, including the unique sequencing elements informed by student feedback, will be evaluated by student surveys, student outcomes, and visits from our accrediting body once implemented.

SUMMARY OF RESULTS: Themes in student comments that informed the decision to place Step 1 before clerkships included: maximizing acquisition of pre-clerkship knowledge, improving student wellness, affording appropriate timing for career exploration, and helping to prepare for higher-stakes assessments. Themes around the placement of neurosciences and renal in the pre-clerkship curriculum included: harnessing students' energy early in the curriculum, increasing long-term understanding of challenging material, providing a natural early connection to clinical skills, maximizing integration of interrelated organ systems, and increasing student confidence via strong course leadership.

REFLECTIVE CRITIQUE: ISMMS students expressed curricular priorities not necessarily shared by faculty, highlighting gaps between faculty and student understanding of the medical school experience. Identifying these gaps helped us craft curricular solutions. One strategy for incorporating student input, unique to ISMMS, was the creation of a funded, yearlong position for one medical student to provide consistent input on the curriculum redesign and to solicit feedback from the student body. Other schools may consider similar strategies to strengthen their own curricular decision-making processes.

ABSTRACT #38

ELECTIVE COURSE ON HEALTH POLICY & SYSTEMS REFORM: DEMYSTIFYING THE UNITED STATES POLICY LANDSCAPE FOR STUDENTS IN HEALTH PROFESSIONS

Melissa Blum, Ethan Gomez, Daniel Kwon, Jiwoo Park, Sophia Spadafore, Trevor Pour

PURPOSE ANDGOALS:
It is a well-established goal of US medical education that students develop the knowledge to provide effective care in today's multidimensional and diverse society. While knowledge of the origins, successes, and inefficiencies of the healthcare system is key for navigating a career in medicine, these principles are yet to be fully incorporated into medical school curricula. In a 2011 survey, a majority of US medical school deans felt that their school had "too little" education on health policy and that they were in the process of increasing this education. Here, we present Health Policy & Systems Reform, an elective introductory course designed and implemented at the Icahn School of Medicine at Mount Sinai to improve the health policy literacy of students in health professions training.

METHODS: The curriculum included 9 hour-long interactive small group discussions with speakers, followed by 30- minute student-led debriefs. Discussions featured members of the Mount Sinai community including senior leadership, faculty, fellows, and medical students involved in policy work, as well as external health policy experts with perspectives from industry and academia. Session topics included the Affordable Care Act, coding and billing, physician entrepreneurship and industry partnerships, pharmaceutical prescription and payor dynamics, value-based health care, novel health insurance models, government financial programs supporting non-profit hospitals, and hospital-government relations.

EVALUATION PLAN: We plan to survey students who completed the class on three metrics: 1) the perceived value of incorporating health policy content into their training path, 2) students' retention of material covered during the class and, 3) students' intention to participate in health policy-related work during training or later in their careers.

SUMMARY OF RESULTS: While the evaluation of the course impact has not yet been completed, this study offers a valuable opportunity to assess the role of elective coursework in health policy in supplementing key gaps in the training of health professionals at the Icahn School of Medicine at Mount Sinai.

REFLECTIVE CRITIQUE: Our introductory health policy curriculum provided students with diverse perspectives on the economic and legal forces shaping the practice of medicine in the United States, as well as potential strategies for manipulating these forces to improve quality of care and population health. While the causal impact of the course would have been demonstrated more convincingly by pre-test and post-test surveys, the post-test survey can still reveal student attitudes about the topic and perceived retention of material in support of the value of the course. We predict that our evaluation plan will show that the breadth of coverage and student-directed discussion-based format led to robust student engagement with the material and excitement about health policy advocacy work.

ABSTRACT #39

PEDIATRIC ENVIRONMENTAL HEALTH TEAMS LEADING CLIMATE AND HEALTH CURRICULA EFFORTS IN MEDICAL TRAINING ACROSS NEW YORK STATE

Charles Moon, Christina Padgett, Augusta Williams, Lorraine Thibodeau, Perry Sheffield

PURPOSE AND GOALS: Faculty at five medical training sites within the New York State Children's Environmental Health Centers (NYSCHECK) network are developing climate change and health (CCH) curricula geared toward both undergraduate (UME) and graduate medical education (GME) in an effort to improve knowledge, confidence and advocacy engagement.

METHODS: At Mount Sinai, SUNY Upstate Medical University (SUMU), and Albany Medical College (AMC), all medical students receive CCH content in either didactic lectures, authentic case-based interactive modules, or simulation and problem based learning during clerkships, and optional advocacy electives (AMC and SUMU). At the University at Buffalo and Montefiore, pediatric residents experience a multi-session, longitudinal GME CCH curriculum. Both sites' GME CCH curricula were developed in accordance with standard competencies of the Accreditation Council for Graduate Medical Education (ACGME). Educational objectives are delivered using multiple educational strategies including lectures, case-based exercises, small group discussions and local community experiences.

EVALUATION PLAN: Our CCH curricular evaluation has involved student and faculty surveys and interviews and iterative re-design to incorporate feedback as well as accommodate larger curriculum changes at the specific medical institution.

SUMMARY OF RESULTS: Evaluations of these curricula to date reveal an overall enthusiasm for the content, varied yet limited baseline knowledge among trainees and non-expert faculty, a desire to translate knowledge into clinical application, and a need for advocacy skills training.

REFLECTIVE CRITIQUE: Barriers to NYSCHECK CCH curricula efforts are lack of protected faculty time for curriculum coordination and maintenance, limited faculty knowledge and comfort, and feasibility of implementation and expansion to other training programs.

ABSTRACT #40

PULSE CHECK: INTRODUCTION TO CARDIOPULMONARY RESUSCITATION FOR THIRD-YEAR MEDICAL STUDENTS

Anna Stacy

PURPOSE AND GOALS: "Pulse Check" is a single session curriculum designed for third-year medical students in their internal medicine clerkship at the Icahn School of Medicine at Mount Sinai. This course was piloted during the 2023- 2024 academic year. Its aims were:

- To familiarize students with the basic steps and components of a cardiopulmonary resuscitation (CPR) in the hospital setting, including what they might see, hear, feel, and experience
- To provide concrete examples of the ways in which medical students can not just participate, but be helpful team members during CPR
- To introduce a practice of post-event reflection in the hopes of later establishing a longitudinal relationship with resuscitation that necessarily involves self-care

This curriculum was designed as a guided discussion with signpost talking points to help approach the course objectives rather than as a lecture. It was intended as a primer on the basics of CPR geared towards early-career learners, most of whom likely have not yet seen or participated in a code; as well as a chance for students to voice their worries, excitements, confusions, and curiosities about the logistical and emotional experience of CPR.

METHODS: The session outline was developed in conjunction with the internal medicine clerkship directors, and with the input of a third-year medical student. The session is divided into three parts, corresponding to the three course goals above. Part 1, "What will I see?", asks students to imagine or, if they have experinece, name the major steps and occurances they might see during CPR, and to list the possible roles team-members take. Part 2, "What can I do?", empowers students to identify which of the roles listed in Part 1 they might be able to step into, and reviews the logistics of how to activate a code at the different sites at which students rotate. Part 3, "How will I feel?", aims to normalize debriefing and transparancy of emotions during and right after a code, and on further reflection in the following hours, weeks, and even years. Students are encouraged to share their own self-care and reflection practices as well as ideas for how they might support their fellow students.

EVALUATION PLAN: This course was included as a mandatory session during the clerkship, and students were given an identical anonymous pre- and post-session self-check on their perceived comfort around the session's three goals on a 5-point scale. Students' pre- and post-session scores will be compared to evalaute the effectiveness of the course in meeting its goals.

SUMMARY OF RESULTS: The curriculum under study is still being implemented. However, it is anticipated that exposure to this curriculum will increase students' comfort being in the room during codes, participating in them, and caring for themselves around the event.

REFLECTIVE CRITIQUE: This outline was designed with the ISMMS internal medicine clerkship in mind, and therefore may not be suitable for adaptation for other institutions.

Global and Community Health

POSTERS 41-43

ABSTRACT #41

IDENTIFYING EDUCATIONAL STRATEGIES TO REDUCE HEPATITIS B AND LIVER CANCER DISPARITIES WITHIN HIGH-RISK U.S. COMMUNITIES

Thomas Chen, Beatrice Zovich, Suzanne Block, Fiona Borondy-Jenkins, Kate Moraras, Chari Cohen

PURPOSE AND GOALS: Asian, Pacific Islander, African, and Caribbean communities in the U.S. are heavily impacted by chronic hepatitis B (HBV) and hepatocellular carcinoma (HCC). Educating these groups on the link between the two diseases is imperative to improve screening rates and health outcomes. This study aims to identify and incorporate the preferred mediated communication methods into community-specific educational campaigns which emphasize the connection between the conditions, to promote uptake of prevention and management behaviors of HBV and HCC.

METHODS: Fifteen focus groups and two key informant interviews were conducted with Micronesian, Chinese, Hmong, Nigerian, Ghanaian, Vietnamese, Korean, Somali, Ethiopian, Filipino, Haitian, and Francophone West African communities. Data were analyzed using thematic coding and analysis. To identify themes and subthemes, each transcript was assigned a primary and secondary coder and inter-coder reliability was achieved with a final kappa coefficient of 0.78.

EVALUATION PLAN: This study's findings help elucidate how to design future programmatic and health communication efforts to have cultural and linguistic relevance. The future direction is to create and disperse culturally-appropriate educational materials within disproportionately impacted communities. Through follow-up quantitative and qualitative studies, we hope to measure awareness of chronic HBV, HCC, and the link between the two.

SUMMARY OF RESULTS: Findings demonstrate that all communities preferred materials be offered in both English and native languages and requested that materials highlight the connection between HBV and HCC. Delivery channel preferences and messaging themes varied by group. Combining print and visual materials can enhance audiences' overall understanding and internalization of health information. Social media was identified to be a powerful tool for increasing the flow of information between public health organizations and priority populations, and each minority community has their predominant social medial platform from which they prefer to receive health information.

Leveraging these outlets can greatly help the dissemination of information. Lastly, engaging an audience's emotions through personal testimonies and partnering with community advocates such as religious leaders can increase their acceptance of information and their likelihood of following health recommendations.

REFLECTIVE CRITIQUE: This study provides insight into community-specific preferences for learning about HBV and HCC. The findings can be used to design culturally and linguistically tailored, multi-platform, health education campaigns to facilitate improved HBV screening and vaccination rates and increase knowledge about HCC risk among highly impacted communities. However, results are not generalizable given small sample sizes and demographic make-up of each focus group. Additionally, selection bias may pose a threat to the study's internal validity, as demographic diversity may have been limited within each community group.

ABSTRACT #42

CURRENT ACADEMIC LANDSCAPE OF GLOBAL SURGERY AND MISSION TRIPS IN PLASTIC AND RECONSTRUCTIVE SURGERY RESIDENCY PROGRAMS

Jenny Chen, Erin Abbott, Dillan Villavisanis, Arya Akhavan, Olachi Oleru, Nargiz Seyidova, Elan Horesh, Peter J. Taub

PURPOSE AND GOALS: The popularity of mission trips within medicine can be traced back to the early and mid-20th century. Within plastic and reconstructive surgery, these trips often focus on addressing congenital anomalies, trauma-related injuries, and other reconstructive needs in populations where access to such specialized care may be limited. The present study outlines the current landscape in global surgery and identify if there are residency program- specific predictors for global mission trips.

METHODS: Plastic and reconstructive training programs in the United States (US) and Canada were included in this retrospective study. Data collected from November 2021 to December 2023 included dedicated global surgery rotations, mission trips, number of integrated residents, program-specific subspecialty rotation durations, and presence of a research year in the training program.

EVALUATION PLAN: Data were obtained from publicly available sources, and program coordinators, residents, fellows, and faculty were contacted directly for additional data. Univariate and linear and logistic regression models were used to establish relationships between global involvement and program details. QGIS was used to visualize program and global site locations.

SUMMARY OF RESULTS: Ninety-four plastic and reconstructive surgery residency programs in the United States and Canada were included in this study. Thirty-three (35.11%) residency programs advertised international electives and/or mission trips on their websites. Of those 33 programs, there were 16 (48.48%) that worked with a pre-existing international service organization, 7 (21.21%) that had their own partnerships, and 10 (30.30%) did not have further information. Figure 1 depicts a map of the plastic surgery programs and their global surgery sites. The most common outside organization was Operation Smile, which was mentioned on seven residency program websites. There was no statistically significant association between global involvement and any of the other factors: number of integrated residents ($p = 0.432$), number of faculty ($p = 0.334$), number of hospitals at which residents rotated ($p = 0.547$), nor the presence of a research year ($p = 0.313$).

REFLECTIVE CRITIQUE: In summary, the present study offers insights into the presence of global surgery in plastic and reconstructive surgery residency programs in the United States and Canada. While 35.11% of programs advertise such opportunities, no statistically significant associations were found with program-specific factors. The diverse nature of collaborations highlights the complexity of global involvement. These findings pave the way for further exploration, which could better quantify the impact of global engagement through the number of procedures performed, patients seen, and funds raised.

ABSTRACT #43

GLOBAL IMPACT (IMPROVING EMERGENCY MEDICAL PREPAREDNESS AND CHILDHOOD TREATMENT) - A PEDIATRIC SIMULATION CURRICULUM AT DHULIKHEL HOSPITAL IN NEPAL

Samantha Langer, Christopher Strother, Jared Kutzin, Darlene R. House, Morgan Bowling

PURPOSE AND GOALS: The Emergency Department at Dhulikhel Hospital (DH) in Dhulikhel, Nepal sees more than 200 pediatric patients each month. There is a 90% admission rate at DH, with more than 40% of children requiring specialized care either in the Pediatric Intensive Care Unit (PICU) or high Dependency Unit. In the US there is a 15- 20% overall admission rate, with only 2-5% of patients requiring PICU care. Through a grant funded by AMPATH Nepal, this project aims to improve the skills and training of providers and students at DH by creating a pediatric simulation curriculum. We plan to expand training opportunities currently offered by DH to include high-yield pediatric clinical scenarios. As a needs assessment, we collaborated with the local team in Nepal to compile the critical situations most frequently encountered and chose the following conditions: respiratory distress, status epilepticus, organophosphate poisoning, and precipitous preterm delivery.

METHODS: We plan to conduct this curriculum in the simulation center at DH in March 2024. Participants will be medical students from Kathmandu University School of Medical Sciences (KUSMS), as well as housestaff, emergency medicine providers, and nurses at DH. The curriculum will involve a pre- and post-session questionnaire, high-yield case simulations using low-fidelity manikins in the simulation center, and debriefings with clarification of learning points and clinical takeaways.

EVALUATION PLAN: Learners will complete questionnaires two weeks prior, immediately after, and three months after participating in the simulation curriculum to evaluate their comfort and skill levels regarding various pediatric emergency scenarios.

SUMMARY OF RESULTS: Simulation sessions are planned for March 2024. Final questionnaire results will be collected in June 2024.

REFLECTIVE CRITIQUE: The primary objective of this simulation curriculum aims to improve the participants' clinical knowledge and comfort levels surrounding the four specific scenarios. This outcome will be measured utilizing pre- and post-session surveys as well as debriefings to assess the effectiveness following its implementation. We also plan to evaluate retention by asking participants to complete a third survey three months after the sessions. The secondary objective is to ensure long-term sustainability of this curriculum at DH. We will train the local teams to facilitate subsequent simulation cases to augment the education of more learners. We plan on donating the necessary manikins as well as case supplies to DH using grant funding to ensure the proper educational setting for this curriculum to continue and to expand the simulation program at DH. The ongoing partnership between Mount Sinai's Arnhold Institute for Global Health, DH, and KUSMS through AMPATH Nepal offers the opportunity for additional development and improvement. We plan to continue meeting with the Nepal team over the next year to monitor the growth of the program and assess ongoing needs.

Professional Development

POSTERS 44-51

ABSTRACT #44

THRIVE: SPARKING HEALTHCARE INNOVATION THROUGH A NINE-MONTH FELLOWSHIP FOR MEDICAL AND GRADUATE STUDENTS

Ian Odland, Joseph Borrello, Layla Fattah, Tyree Williams, Kevin Costa, David Putrino, Holly Oemke, Turner Baker, Jimmy McKay, Dov Shamir, Juan Quijano, Brian Nickerson, Janice Gabrilove

PURPOSE AND GOALS: Medical and graduate students do not have access to curricular programs that support cross-disciplinary training in innovation and entrepreneurship. This impedes communication between clinicians who can better identify problems at the point of care and scientists and engineers who can develop technological solutions.

METHODS: The Targeted HealthcaRe InnoVation & Entrepreneurship (THRIVE) Fellowship is a novel, nine-month fellowship at the Icahn School of Medicine at Mount Sinai that supports multidisciplinary teams to identify an unmet clinical need and develop a novel technology solution. This curriculum is divided into three stages that emphasize need-based medical technology innovation through problem validation, team science, solution ideation, prototyping, and pitching. This program is designed to align with the National Science Foundation's (NSF) National Innovation Network I-Corps program, the Graduate School's Entrepreneurship courses, and Mount Sinai Innovation Partners' practices to streamline intellectual property generation.

EVALUATION PLAN: A retrospective online quantitative survey was used to evaluate the THRIVE Fellowship. Kirkpatrick's framework of training evaluation was used to assess the program outcomes, with results reported across four levels: reaction, learning, behavior, and results. Reaction was assessed via an end-of-program satisfaction survey capturing program experience. Learning was determined via a pre-post knowledge survey that captured data on exposure to four processes and nine skills. Behavior was gauged based on the successful completion of program milestones, which reflected the application of knowledge to practice, along with participants' intent to continue their project or participate in healthcare innovation beyond the THRIVE Fellowship. Results were evaluated based on the funding secured by each team.

SUMMARY OF RESULTS: In the third cohort (August 2022-May 2023), twenty-nine applicants were accepted as fellows. Twenty-one fellows formed five teams. Graduated fellows (n=20) rated the program experience at 4.45/5. Fellows reported working 7.4 (SD: 4.0) hours per week on their projects. On average, teams met 10.4/12 (SD: 2.1) milestones, and teams raised $15,250 (SD: 11,424) in project funding. 85% of graduated fellows reported that healthcare innovation will be a component of their future careers.

REFLECTIVE CRITIQUE: The THRIVE Fellowship demonstrates an innovative model for interdisciplinary, experiential innovation and entrepreneurship training for medical and graduate students in healthcare. Early outcomes indicate that this program enables students to gain technical skills and develop a passion for healthcare technology innovation. A major limitation is that much of the data is self-reported. Since the application form was used to determine baseline experience and skill, applicants may have overstated prior experience. Future plans will seek to determine if this cohort will generate intellectual property, companies and impact patient care as a result of thisinitiative.

ABSTRACT #45

THE IMPACT OF A GAP YEAR ON MEDICAL STUDENT MATCH OUTCOMES IN PLASTIC SURGERY

Carol Wang, Joseph Mellia, Dillan Villavisanis, Lior Levy, Abena Gyasi, Olachi Oleru, Nargiz Seyidova, Peter J. Taub

PURPOSE AND GOALS: Matching into an integrated plastic surgery residency program is notoriously difficult. Some medical students take time away from medical school to pursue research fellowships or other activities in their gap years to bolster their portfolio before applying, however the impact on match outcomes remains unclear. This retrospective study aimed to assess how gap years related to odds of matching at an integrated plastic surgery residency program.

METHODS: All Electronic Residency Application Service applications to the integrated plastic surgery residency program at Mount Sinai from the 2017-2018 to the 2021-2022 cycles were included in this study. Match results were determined using online public sources. International medical graduates, osteopathic medical students, reapplications, and those that completed more than one research year were excluded from analysis.

EVALUATION PLAN: Students who had taken a gap year were compared with those who had not using independent samples t-tests for continuous variables and Chi-square analysis for categorical variables. The relationship between gap years and matching was determined with multivariate logistic regression.

SUMMARY OF RESULTS: From 1298 applications, 974 were analyzed after applying exclusion criteria. Of these applicants, 191 (20%) completed a gap year. Applicants who completed a gap year had a higher match rate than applicants who did not (83% vs 74%, $P < 0.01$). Applicants who completed a gap year also had approximately twice as many presentations (18 vs. 8, $P < 0.01$) and publications (17 vs. 8.3, $P < 0.01$) as applicants who did not complete a gap year. Applicants who had taken a gap year had 1.7 higher odds of matching than those who had not (OR = 1.7, predicted probability 87% vs 79%, $P < 0.01$). The impact of taking a gap year was 5.0 times stronger for Asian applicants compared to non-Asian applicants (OR = 5.0, $P = 0.016$). Conversely, the impact of taking a gap year was weaker for White (OR = 0.33, $P < 0.01$) and Black applicants (OR = 0.068, $P = 0.027$). Applicants with a Step 1 score of 250-259 trended towards having a 7.3 higher odds of matching if they took a research year (OR = 7.3, $P = 0.057$). The impact of taking a research year was not affected by the applicant's AOA status, medical school ranking, or medical school's association with an integrated plastic surgery residency program.

REFLECTIVE CRITIQUE: Overall, applicants who took a gap year had a stronger research record and 74% higher odds of matching. Interestingly, this effect was amplified for Asian applicants or those with a Step 1 score of 250-259 and weakened for White or Black applicants. The underlying reasons are likely multifactorial and warrant investigation in future studies.

ABSTRACT #46

UNDERREPRESENTED IN MEDICINE APPLICANTS ARE LESS LIKELY TO SUCCESSFULLY MATCH INTO PLASTIC SURGERY

Peter Shamamian, Olachi Oleru, Nargiz Seyidova, Abena Gyasi, Lior Levy, Peter Henderson

PURPOSE AND GOALS: The lack of underrepresented in medicine (UIM) physicians in academic plastic surgery has been a topic of interest for many years, and accordingly outreach has been undertaken to address the pipeline from medical school to residency and beyond. This study aims to assess and identify the characteristics associated with plastic surgery match success for UIM applicants.

METHODS: Applications from first-time, US allopathic medical school seniors between the 2017-2018 and the 2021- 2022 application cycles were included in this study. Data were abstracted from the Electronic Residency Application Service and the National Residency Matching Program database and online public sources. Of the available self- reported race categories for this study, applicants who are traditionally UIM included Black/African American and Hispanic. Applications variables, including gender, medical school rank, medical school affiliation with a plastic surgery residency program, Alpha Omega Alpha (AOA) status, Gold Humanism Honor Society (GHHS) status, dedicated research years, scholarly publications and presentations, and Step 1 score category were collected.

EVALUATION PLAN: A multivariate logistic regression was used to analyze the association between UIM status and successfully matching using the applicant variables collected. A subgroup analysis was performed using bivariate logistic regression in order to assess the relationships between UIM status and successfully matching within each of the applicant variables. Statistical significance was set at a p value <0.05.

SUMMARY OF RESULTS: A total of 1,298 applications were analyzed. The overall match rate was 63.4%. UIM represented 8.5% of the applicants (3.6% Black, 4.9% Hispanic) and 6.5% of matched applicants (2.6% Black and 3.9% Hispanic). Overall, 47.7% of UIM applicants successfully matched (44.7% of Black applicants, 50% of Hispanic applicants). UIM applicants were 57.2% less likely to match than non-UIM applicants (OR 0.43, $p=0.001$), though they were 59.9% less likely to match (OR 0.4, $p=0.216$) when adjusted. Subgroup analysis revealed that odds of matching as a UIM applicant were significantly increased if the applicant had a home program, took a research year, went to a highly ranked medical school, and had any number of published research and presentations (ORs 0.43- 0.48, all $p<0.05$). Odds of matching as a UIM applicant were significantly decreased if the applicant went to a medical school ranked in the highest or lowest third (ORs 0.41-0.42, all $p<0.01$). Step 1 score showed mixed effects.

REFLECTIVE CRITIQUE: The likelihood of matching as a UIM applicant is lower than the rest of the applicant population, and there are no individual applicant characteristics that can increase these odds to equal that of the general applicant population. Modifiable factors such as research year and research productivity seem to be choices that a current medical student could make that could increase their odds.

ABSTRACT #47

STUDENT-LED DEVELOPMENT OF A SURGICAL SUBSPECIALTY ACTING INTERNSHIP AT AN ACADEMIC MEDICAL INSTITUTION

Daniel Kwon, Dillan Villavisanis, Sara Kiani, Peter F. Morgenstern, Aldo V. Londino, Samuel K. Cho, Michael J. Droller, Daniel K. Han, Robert Fallar, Horatio E. Holzer, Adam Korayem, Rainier P. Soriano

PURPOSE AND GOALS: As surgical training has evolved, many residency programs have shifted from independent to integrated training paths. Surgical residents are increasingly trained by multiple sub-specialists, and it has become essential for medical students to gain early exposure to these subspecialties to make informed decisions about their future training. Surgical subspecialty acting internships (SSAIs) offer hands-on experiences and mentorship opportunities that prepare students for future training. The following abstract describes the student-led development of an SSAI program at a US MD-granting school of medicine and the outcomes of its first year of implementation.

METHODS: In conjunction with members of the education staff at the Icahn School of Medicine at Mount Sinai (ISMMS), students led the development of acting internship curricula to provide an environment in which a 4th year student can function as a junior resident in an inpatient team. In contrast with ISMMS' electives in which students can register for supervised surgical experiences, the SSAI allows students to be first-line providers with supervision in neurosurgery, otolaryngology, orthopedic surgery, urology, vascular surgery, or other surgical subspecialties. Once the curriculum for the SSAI had been developed and formalized into a syllabus with the aid of representatives from each subspecialty, the SSAI's methods of instruction, assessment, and feedback were proposed to the curriculum oversight committees, and the SSAI became available for students during the 2022-2023 academic year for a total of eight month-long sessions.

EVALUATION PLAN: Following completion of their month-long SSAI, students were sent an anonymous evaluation form through the one45 software to assess the quality of the acting internship and collect data to inform future iterations of the SSAI.

SUMMARY OF RESULTS: One45 data was collected anonymously from June 27, 2022, to April 25, 2023, with 18 responses (94.7% response rate). The average rating of the quality of clerkship components was 4.8 (n=72) with 2 "n/a" (2.9%), 2 "good" (2.9%), 12 "very good" (17.1%), and 56 "excellent" (80%). The average agreement amongst all clerkship components (e.g., learning objectives were clearly stated, professional behaviors were promoted and demonstrated) was a 4.7 (n=144) with 114 "strongly agree" (79.2%), 20 "agree" (13.9%), 5 "neither agree nor disagree" (3.2%), 2 "disagree" (1.4%), and 3 "strongly disagree" (2.1%). Mid rotation feedback was given to 13 students (72.2%).

REFLECTIVE CRITIQUE: The feedback collected from the SSAI's first year of implementation indicates that it provides a comprehensive and well-rounded experience for medical students. However, areas for improvement included the need for more structured feedback from faculty and communication regarding expectations. Ultimately, our abstract provides a model for other medical institutions and medical students to develop and evaluate their own SSAIs, which will help students make more informed decisions about their future careers.

ABSTRACT #48

BILINGUAL FLUENCY ASSESSMENT CERTIFICATION (BFAC) PROGRAM – A SPANISH LANGUAGE CERTIFICATION PROGRAM FOR MEDICAL STUDENTS IN NEW YORK

Nestor Bedoya, Rishab Revankar, Adriana Baez Berrios, Rodnell Busigo Torres, Nicole Muehleisen, Silvina De La Iglesia, Paola Palmieri, Evan Siau, Ann-Gel Palermo, Edward Poliandro

PURPOSE AND GOALS: In New York City, 25% of the population is primarily Spanish-speaking. There is a growing demand for bilingual physicians who can better connect this demographic. Our goal was to develop a fully-funded bilingual fluency accreditation program for medical students at the Icahn School of Medicine at Mount Sinai, in collaboration with the Department of Medical Education, the Office of Diversity and Inclusion, and the Mount Sinai Health System's Department of Language & Accessibility Services. Additionally, we aimed to assess the program's effectiveness in equipping students with core competencies required of bilingual physicians.

METHODS: The course itself is a 6-week, 30-hour curriculum administered by Primera Languages, a certified language education provider, in close collaboration with the Department of Medical Education at Mount Sinai. The program's objectives and curriculum were reviewed and approved by the Department of Language and Accessibility Services at Mount Sinai Health System. BFAC is only available for Advanced or Native Spanish speakers. Lectures were administered live and online via Zoom to a pilot cohort of 6-8 medical students. Lectures were delivered entirely in Spanish with breakout rooms designed for students to simulate practice scenarios, overseen by instructors. Bilingual fluency certification is dependent on course attendance and demonstration of core competencies on the final examination that includes a written and oral component. BFAC certification will allow students to talk in Spanish during their rotations within the Mount Sinai Health System.

EVALUATION PLAN: A mixed quantitative and qualitative survey was distributed to students before and after the course to evaluate self-perceived Spanish proficiency, satisfaction with the course, and intention to pursue careers that utilize Spanish. An additional survey is being administered to the first alumni cohort of the course in summer 2022 to evaluate how the bilingual fluency certification impacted their career.

SUMMARY OF RESULTS: 29 participants have completed the course over four iterations since the initial pilot. Participants overall found the course manageable and were satisfied with the content and online format. They expressed a consistent desire for more comprehensive medical Spanish educational offerings during pre-clinical training, as well as medical careers involving Spanish. This language accreditation program has proven to be an essential asset in addressing addressing needs in medical student education and equitable patient care.

REFLECTIVE CRITIQUE: Future directions will focus on implementing in-person interactions with Spanish-speaking patients, either within the course curriculum or through enhanced connections with Medical Education through pre- clinical skills courses like "The Art and Science of Medicine." Further alumni studies will continue as classes graduate, and the impact of culturally sensitive, language-concordant care on patient-reported outcomes within Mount Sinai Health System could be further investigated.

ABSTRACT #49

THE RESIDENT EDUCATOR: CREATING RESIDENT-LED TEACHING CURRICULUM ON THE MEDICINE WARDS

Galit Balayla, Julia Ferreira De Carvalho, Foram Parikh

PURPOSE AND GOALS: The fundamental goal of graduate medical training is education. Resident education is achieved through various modalities including formal academic lectures with Attending physicians and direct patient care. However, senior residents often serve as both learners and educators to junior faculty. The Accreditation Council for Graduate Medical Education (ACGME) considers resident teaching ability as a core competency and promotes resident preparation for this role. The importance of formal residents-as-teachers (RAT) curricula has been established; nonetheless, many residency programs have not formalized such initiatives. Currently, senior residents provide most of the clinical wards' education without a dedicated curriculum within the internal medicine (IM) residency program at Mount Sinai West/ Morningside. We recognize the importance of establishing a formal resident-led didactic session. The goal of this project is to improve the quality of clinical teaching by senior residents by creating infographic-based curricula.

METHODS: We selected a list of high-yield medicine topics and created a concise infographics-based teaching guide. At the start of each two-week rotation, a topic was selected and emails with these teaching guides were provided to all residents rotating on the medical wards. Senior residents were instructed to provide a twenty-minute lecture on the selected high-yield topic to junior learners. All residents were asked to complete a satisfaction survey to assess both compliance and efficacy of senior-led teaching.

EVALUATION PLAN: Residents were requested to fill out pre-and post-surveys, including specific questions to evaluate knowledge improvement. We found that survey fatigue was a limiting factor and therefore, our evaluation plan was modified to a single retrospective post-teaching survey.

SUMMARY OF RESULTS: 24 responses were obtained from September 2023 to January 2024. Of those, 18 (75%) found the teaching and infographics helpful (selected 8 or above on a Likert scale from 1-10) and only 1 (4.2%) found it intermediate (between 5-7 out of 10). When asked about confidence level on the topic pre-teaching, survey results were highly variable. There was a significant improvement in confidence (above 6) post-teaching($p=0.001$).

REFLECTIVE CRITIQUE: Our results indicate that establishing a RAT curriculum is an effective tool to improve overall teaching for junior learners. We found that establishing a standardized curriculum for senior residents fosters the necessary core competency skills for becoming a successful educator. While this initiative shows preliminary success, we encountered a few limitations, including the allocation of dedicated teaching time and time to complete satisfaction surveys. Moving forward, we aim to create sustainability by establishing a formal curriculum as a standardized protocol for resident education on the medical wards. This is a low-cost initiative and easily reproducible at other institutions across the system.

ABSTRACT #50

UNALTERABLE APPLICANT CHARACTERISTICS ARE ASSOCIATED WITH FAVORABLE MATCH OUTCOMES: MOVING TOWARDS MORE PERSONAL APPLICANT SELECTION

Reanna Shah, Olachi Oleru, Nargiz Seyidova, Abena Gyasi, Lior Levy, Peter J. Taub

PURPOSE AND GOALS: Applicants are often advised that a well-rounded application will serve them better in the Plastic Surgery Match; that a successful application is not just about numbers. Many program directors believe that more personal knowledge of the applicant (through LORs, personal clinical experiences, etc.) will become more important in selection since the change to binary score reporting on the USMLE Step 1. As the applicant selection process continues to evolve, the purpose of this study is to assess available data for the objective characteristics that were associated with favorable Match outcomes.

METHODS: All Electronic Residency Application Service applications to the integrated plastic surgery residency program at Mount Sinai from the 2017-2018 to the 2021-2022 cycles were included in this study. Match results were determined using online public sources. Applicant gender, self-identified race/ethnicity, medical school of matriculation and medical school rank, medical education extensions or interruptions, advanced degrees, AOA membership status, Gold Humanism Honor Society (GHHS) membership status, dedicated research years, scholarly publications and presentations, USMLE Step 1 and 2 scores, were evaluated.

EVALUATION PLAN: All applicant characteristics were assessed for multicollinearity, and logistic regression was performed with backward conditional selection to isolate variables that were significantly associated with matching.

SUMMARY OF RESULTS: A total of 1298 applications were analyzed which represented 91% of all integrated plastic surgery applicants during that time period. A total of 15 variables were assessed for significance. Of these, 5 were significantly associated with whether or not an applicant matched. Applicants at a top ranked medical school were 2.4 times more likely to match ($p=0.006$). Applicants with AOA membership status were 4.7 times more likely to match ($p=0.001$). Having a Step 1 score between 230 and 249 were over 5 times more likely to match ($p<0.05$). Conversely, US medical graduates at the time of application were 54% less likely to match ($p=0.036$). Attending a medical school with a plastic surgery home program was also associated with matching, but the odds were not significantly increased (OR = 2.4, $p=0.066$).

REFLECTIVE CRITIQUE: Available data from the 2018-2022 match cycles show that AOA status, medical school rank, USMLE scores and attending a medical school with a home program were significantly associated with matching, while being a previous US medical graduate decreased odd of matching significantly. As the applicant evaluation process continues to change, more emphasis can be placed on personal characteristics of the applicant rather than characteristics that the applicant has no control over, such as medical school rank or schools with a home program.

ABSTRACT #51

GASTROENTEROLOGY EDUCATION AND RESIDENT DEVELOPMENT (GERD): A UNIQUE PROGRAM FOR INTERNAL MEDICINE RESIDENTS INTERESTED IN A CAREER IN GASTROENTEROLOGY AND HEPATOLOGY

Stephen A. Lieto, Nicholas Scalzo, Edward Cytryn, Bhavana Bhagya Rao

PURPOSE AND GOALS: In order to better prepare residents for current and future clinical, medical education, and research roles and to assist them in laying a strong foundation for a career in gastroenterology and hepatology (GI/Hep), the internal medicine residents at Mount Sinai Hospital developed and launched the Gastroenterology Education and Resident Development (GERD) program in 2023. GERD's mission is to establish a collaborative learning and growth environment by:

1. Creating and maintaining a dynamic and digestible GI/Hep clinical guide to supplement residentknowledge.
2. Facilitating monthly meetings led by residents with guest GI/Hep faculty, with an emphasis on members stepping into the role of clinical educators for their peers.
3. Fostering mentorship between residents and GI/Hep fellows and faculty for resident career development and research guidance.

METHODS: Recruitment of members to GERD was done by distribution of invitation emails to all residents in July 2023. Invites will be re-sent at 6-month intervals. A faculty liaison was identified to provide formal leadership and coordinate mentorship. GERD members were divided into three committees (GI/Hep guide, clinical education and research/mentorship) based on their interests, with each group led by PGY-3 residents. In future years, PGY-1 and PGY-2 residents will step into leadership roles to further develop their own skills. Meetings are organized on a monthly basis with varying GI/Hep topics and formats, including interactive didactics, journal clubs, fellowship preparation panels, and career-focused faculty lectures. Outside the meetings, residents are creating the GI/Hep guide and continuing discussions with senior GERD members and faculty to obtain research and other career guidance.

EVALUATION PLAN: Response to invitation emails and attendance at meetings is being tracked. In addition, surveys are used to elicit member input on utility and quality of GERD program resources and meeting content and impact on scholarly pursuits and career navigation. Fellowship match rate will be tracked as well.

SUMMARY OF RESULTS: GERD was created and launched in August 2023 with 20 members. 4 meetings have been held with an average attendance of 15 participants spanning PGY 1-3. Overall response has been tremendously positive with each meeting showing growing attendance. More granular data on impact is being actively collected via surveys and will be available in time for analysis and presentation on research day.

REFLECTIVE CRITIQUE: GERD has addressed an important area of need for internal medicine residents and our hope is that as the program grows, it will continue to enhance residents' GI/Hep knowledge, help them secure GI/Hep fellowship, and lay a strong foundation for a career in the field. This is a unique program that can nonetheless be easily adopted and implemented at other institutions and thus benefit an even larger group of trainees in the future.

Quality Improvement

POSTERS 52-57

ABSTRACT #52

PSYCHOLOGICAL SAFETY & CHALLENGING CONVERSATIONS: WORKSHOPS TO ENHANCE WELL-BEING FOCUSED LEADERSHIP SKILLS

Nimra Rahman, Cara Faherty, Celestine He, Jonathan Ripp, Lauren Peccoralo

PURPOSE AND GOALS: Healthcare workers report that their work culture is not psychologically safe. System-wide staff surveys show that 35% don't feel encouraged to share ideas for improvement and 33% felt supervisors don't communicate information transparently. Only 56% of faculty felt they could bring up problems and 60% felt that their leaders provided helpful feedback/coaching. We aim to address these perceived leader behavior gaps (creating a safe space, providing feedback and managing difficult conversations) by delivering two workshops: Psychological Safety and Challenging Conversations, and to assess the impact on leaders' knowledge and skill use.

METHODS: A team of physicians and trainers developed two-hour long workshops. Psychological Safety included: humble inquiry, recognizing unconscious biases, framing work as learning, including all team members, modeling fallibility and thanking the messenger. Challenging Conversations included: the Ask First Feedback Model and the STATE (Share facts, Tell story, Ask others, Talk tentatively, Encourage testing) model. The workshops include blended learning with brief didactics, group discussions, and role-playing activities.

EVALUATION PLAN: Leadership (physicians, nurses, social workers etc) of the units in the HRSA program (ICUs and EDs) were invited to participate via meetings and emails. The evaluation methods included pre-post workshop surveys, which assessed content knowledge and likely use of the learned skills on a 1-5(strongly disagree to agree scale). Basic demographic data was also collected. Pre-post surveys were compared using 2-sided t-tests.

SUMMARY OF RESULTS: Of the 306 invited leaders, 240 and 136 leaders completed the Psychological Safety and Challenging Conversations workshops, respectively. Most participants were aged 30-39(57%), were women(53%), and identified as White(54%), Asian(22%), Hispanic/Latinx(11%), and Black/African American(8%). Roles included physicians (80%), administrative staff (11%), and nursing(12%). Following the Psychological Safety workshop, participants had a clearer understanding of humble inquiry ($d=-1;p<.001$), and active listening ($d=-0.3;p=0.008$), and would likely use the skills of unconscious bias awareness ($d=-0.7;p<.001$), active listening ($d=-0.6;p<.001$), framing work as learning ($d=-1.2;p<.001$), modeling fallibility ($d=-1.1;p<.001$) and thanking the messenger ($d=-0.9;p<.001$). Following the Challenging Conversations workshop, participants had a better understanding of preparing for feedback conversations ($d=-1;p<.001$), the Ask First model ($d=-1.3;p<.001$) and the STATE model ($d=-1.7;p<.001$).

REFLECTIVE CRITIQUE: A diverse group of hospital leaders were successfully recruited to participate in two novel workshops. Most attendees reported that the sessions increased their knowledge and skills. Limitations include a moderate number of participants, and not yet measuring behavioral change in practice and downstream impacts. Next steps include delivering these workshops to more institutional leaders and measuring changes in leadership behavior.

ABSTRACT #53

IMPACT OF PEER-TO-PEER TEACHING ON SEPSIS PATHWAY UTILIZATION AND OUTCOMES

Galit Balayla, Sara Luby, Hammad Sheikh, Venus Sharma, Connor Smith, Rachael Schneider, Andrea Wood, Alvin Yang, Christiana Choi, Yoni Balboul, James Salonia, Raymonde Jean

PURPOSE AND GOALS: The 2021 Surviving Sepsis Guidelines provide a strong recommendation that hospitals utilize screening tools to identify high-risk patients and bundled programs to promote early treatment of sepsis. The recommendations hinge on the fact that timely intervention in early sepsis has resulted in reduced mortality. Some studies have shown that the use of EHR bundled sets promotes guideline-directed interventions and reduces rates of mortality in all types of sepsis. We found that within our system (Mount Sinai Morningside/West) the sepsis pathway and order set were being underutilized.

METHODS: An educational lecture series was developed and presented to both Internal Medicine residents and hospitalists from November 2022 through July 2023. The lecture series was provided to the resident floor service teams in groups of 3-5 residents and reinforced at resident academic half-day and hospitalists meetings.

EVALUATION PLAN: A standard chi-squared analysis was used to assess the significance of increased pathway use pre- and post-intervention as well as outcomes improvement (mortality and routine discharges home) in patients placed on the pathway.

SUMMARY OF RESULTS: The pathway utilization before intervention was 11.2% compared to 19.1% after intervention (chi-squared p-value of <0.01) with a decreased overall mortality in patients diagnosed with sepsis from 18.2% pre- intervention to 12.7% post-intervention (chi-squared p-value <0.002). Before intervention the mortality on pathway patients was 21.2% compared to 16.9% post-intervention (chi-squared p value of 0.272) and routine discharges home on pathway patients, increased from 27.4% to 34.1% after intervention (chi-squared p-value of 0.171).

REFLECTIVE CRITIQUE: The Mount Sinai System has created multiple bundle systems to improve overall patient outcomes. As seen in several studies, including this one, the use of the Sepsis Order set to provide early treatment of sepsis has shown overall benefits for patients. We saw a significant increase in pathway utilization with an overall decrease in mortality in septic patients after the intervention. Even though mortality and routine discharges were not statistically significant on pathway patients, the overall outcome improved. This can suggest that our innovative approach of teaching the house staff, in a more engaging environment, led to an overall increased awareness and better understanding of how to treat sepsis. Next steps for the project would be assessing if this intervention promotes long term consistency and to find ways of educating on how to use the Order Set in a more sustainable way.

ABSTRACT #54

ENGAGING PHYSICIAN TRAINEES THROUGH BEDSIDE INTENSIVE CARE UNIT NARRATIVES: A MULTISITE EXPANSION STUDY

Maria Athena Riego, Raul Benavides, Valeria Santibanez, Hailey Gupta, Edith Robin, Kathryn Bass, Alexander Davidovich, Mirna Mohanraj

PURPOSE AND GOALS: Intensive care unit (ICU) physicians are at high-risk for disengagement. In 2019, the authors implemented a novel narrative medicine intervention to promote engagement with patients and fulfillment from work. Patient biographic and social information was elicited (Patient Bios), shared during rounds, and posted in patients' rooms (the intervention). Post-intervention, resident physicians reported spending more time with patients, developing easier rapport with surrogates, and deriving more meaning from work. This multisite expansion study examines implementation feasibility across ICUs in various geographic settings and impacts on resident physician fulfillment, wellness, and engagement in the ICU.

METHODS: We designed a longitudinal, mixed-methods study to implement the intervention across ICUs in New York and New Jersey. To date, the study has been conducted for a 6-month period at Site 1 of 7 planned sites. At four data collection points, residents submit prompted audio or written diaries and the Stanford Professional Fulfillment Index© (PFI). Implementation has begun at 4 additional sites.

EVALUATION PLAN: Iterative thematic analysis of diary submissions was performed. Statistical analysis of PFI surveys is planned via a within-subject design.

SUMMARY OF RESULTS: One hundred thirty-four Patient Bios were completed over 6-months at Site 1. Twenty-two physician subjects were enrolled. End rotation diary submission and PFI surveys were completed by 100% and 72% of physician subjects, respectively. Further quantitative data analysis will be conducted once the 3-months post-ICU rotation data for Site 1 is available and once expansion site implementation and data collection is completed. To date, preliminary thematic analysis of qualitative data responses generated five thematic categories: human-centered care (26%), communication and relationship building (28%), impact on patient care (14%), impact on emotions and burnout (23%), and fulfillment from work (9%). There was an increase in human-centered care comments post-intervention.

Responses were sub-codified as 'positive' or 'negative'. At end-rotation, there was a 35% increase in positive responses compared to the pre-rotation.

REFLECTIVE CRITIQUE: Implementation of this novel narrative medicine intervention is feasible and positively received by site-based implementation teams and physician subjects. Qualitative responses indicate that physician subjects have a positive perception of the intervention with an improved humanistic perception of patients. ICU workflow was not disrupted. As multisite data is collected and analyzed, the authors anticipate positive perception of the intervention, feasible incorporation of the intervention in the daily ICU workflow, and positive impacts on physician engagement with patients and fulfillment from work irrespective of ICU type or geographic location.

ABSTRACT #55

INITIATION OF TAKE HOME NALOXONE KIT DISPENSING ON THE INPATIENT MEDICINE SERVICE AT MOUNT SINAI WEST

Jiaxi Miao, Scott Low, Kristy Huang, Modesta Asante, Jood Ani, Caroline Mcbrien, Annalisa Monahan, Abdel Abada, Beth Raucher, Irina Zaretsky

PURPOSE AND GOALS: The opioid crisis continues to be a growing problem nationwide. In NYC, there were 3,026 deaths attributed to drug overdose in 2022, an increase of 12% from 2021, with fentanyl being present in 81% of the cases. To help combat the rise in opioid overdose, our institution became a registered Opioid Overdose Prevention Program (OOPP) in 2020 and began the distribution of take-home naloxone kits from the Emergency Department in 2021 which we are now expanding to the inpatient units. Our aim is to increase take home naloxone kit dispensing to 20% among at-risk patients discharged from the medicine service from September 2023 to March 2024.

METHODS:
A take-home naloxone kit dispensing algorithm was created through a collaborative effort between providers, pharmacy and nursing. Naloxone dispensing criteria was established using guidance from the CDC and the NYC DOH and include patients with illicit substance use, on treatment for opiate use disorder, on high dose opioids, or on concurrent CNS depressants. Internal medicine residents, advanced practice practitioners, and attending physicians became certified dispensers of naloxone through the OOPP training. A SmartPhrase was developed to ensure that proper patient education on naloxone use was provided at the bedside.

Lectures were conducted on the process of kit dispensing. Posters outlining prescribing protocols were displayed in charting areas. Ongoing chart reviews are being conducted and reminder notifications are sent to providers in real time via secure Epic Chat. A raffle was created to further engage providers in kit dispensing.

EVALUATION PLAN: A patient database with take-home naloxone orders and the order administration record is generated via an Epic report biweekly. A manual review of unadministered orders is conducted to confirm documentation of dispensed kits outside of the medication administration record. A separate report is generated via Epic using the provider dispensing SmartPhrase to determine the number of patients that were offered a kit but declined.

SUMMARY OF RESULTS: Baseline data was obtained using ICD10 codes and prescription reports from January through March 2023. This data indicated an average of 70 at-risk patients per month discharged from the medicine service. The number of patients at the start of our project in September 2023 who were offered a take home kit was 8. This number increased to 19 in November and 17 in December.

REFLECTIVE CRITIQUE: While the dramatic increase in kit distribution so far is encouraging, we believe sustainability of our project will be an issue given the high reliance on provider education and ongoing real time reminders sent out by our team. We hypothesize creating a best practice advisory alert within the EMR to prompt providers to dispense naloxone on discharge to at-risk individuals would offer a more sustainable solution.

ABSTRACT #56

ADAPTING AND ADVANCING: A RENAL ULTRASOUND CURRICULUM

Hong Yu Wang, Yoshiko Ishisaka, Hayato Mitaka, Elliot Charen, Paru Patrawalla

PURPOSE AND GOALS: In 2022, we implemented a novel Renal Point of Care Ultrasound (POCUS) curriculum for Internal Medicine residents on nephrology elective at Mount Sinai Beth Israel. Despite improvements in confidence and skill at performing POCUS for acute kidney injury post-elective, we noted minimal improvement in knowledge measured with a multiple-choice test. In response to these findings, modifications to the existing curriculum were made to improve practice with feedback and accessibility of the teaching materials. An easily accessible one-page visual summary of renal and bladder POCUS was developed and shared with learners. This supplementary material aims to enhance the educational content by providing a concise, easily digestible reference to improve knowledge in image interpretation. In our study, we aimed to evaluate the impact of this additional resource on resident performance.

METHODS: Beginning in August 2023, internal medicine residents rotating on nephrology elective received the one- page reference offering key points and guidelines in addition to the existing Renal POCUS curriculum which included pre-recorded didactic lectures and hands-on training.

EVALUATION PLAN: Residents participating in the renal POCUS program were assessed through a survey and a knowledge test before and after their 2-week elective. A retrospective review was conducted to compare the results of these knowledge tests with the outcomes from the previous curriculum, conducted between September 2022 and August 2023.

SUMMARY OF RESULTS: Out of nine residents enrolled, eight completed both the pre- and post-rotation knowledge tests and confidence surveys. There was a trend towards knowledge improvement that was not statistically significant pre- and post- rotation (pre 7.0 [5.75-8.25], post 8.0 [7.25 – 8.75], $p = 0.057$), potentially attributable to the limited sample size. A significant increase in confidence was observed across all parameters. When compared with the outcomes from a previous curriculum, where the pre- and post-test median scores were 6.0 [5-7] and 6.5 [5.75-8] respectively, the current curriculum shows a higher improvement in scores.

REFLECTIVE CRITIQUE: This preliminary report demonstrates the need for ongoing quality improvement for novel curriculums to identify areas for improvement. Our study shows a potential positive impact from the addition of the one-page reference sheet. Further data collection and evaluation is needed for a more comprehensive assessment of this quality improvement initiative.

ABSTRACT #57

CONVENING HEALTH EQUITY CHAMPIONS TO IMPLEMENT EQUITY-FOCUSED INITIATIVES

Brittany M. Chambers

PURPOSE AND GOALS: Black patients diagnosed with a serious illness like cancer, heart failure, etc. experience disproportionate suffering, including worse pain and symptom control and higher burdens on family caregivers. Resulting from systemic racism in the United States and in US health care, these inequities constitute preventable suffering for Black patients and families. After national research, we learned that more than 150 initiatives have been implemented by a diverse group of health care organizations to reduce inequities and improve care quality for Black patients with serious illness and their families. These efforts ranged from implementing systematic processes to ensure racial equity in access to clinical services, to expanding the care team to meet community needs via lay care navigation programs.

METHODS: The author convened two online workshops with more than 80 health equity champions to discuss effective, replicable models and strategies for implementing similar projects at their own organizations. This poster will describe how a health equity workshop can facilitate peer-to-peer problem-solving and catalyze action in implementing equity- focused models.Over the two sessions held in Spring 2023, there were 81 participants who attended the live workshops. The goal for the workshops was to inspire and support health care providers to begin to move the needle on achieving equity.

EVALUATION PLAN: Based on a post-event survey, participants found the workshops educational, and planned to implement practice changes that would benefit and improve quality of care for their Black patients and caregivers.

SUMMARY OF RESULTS: The author will share quantitative data on attendance, organizational type, attendee roles/discipline, and attendee testimonials highlighting the benefits of convening health equity champions to improve healthcare quality.

REFLECTIVE CRITIQUE: The poster will describe the impetus for this education initiative, best practices in developing workshops that include didactic and interactive breakouts for self-identified equity champions, and key principles for implementing a health equity initiative with cultural humility.

Simulation

POSTERS 58-66

ABSTRACT #58

THE EFFECTS OF ENDOSCOPIC SIMULATION ON RESIDENT PHYSICIANS' CONFIDENCE AND KNOWLEDGE IN TREATING COMMON GI CONDITIONS

Marni Wilkoff, Emily Seltzer, Shabari Shenoy, Nicholas Piniella, James Salonia, Daniela Jodorkovsky

PURPOSE AND GOALS: Simulation has become a popular tool in medical education. As of 2011, 64 participating teaching hospitals utilized simulation for residents, and 61% used simulation for subspecialty training, with 31% of the hospitals having screen-based virtual reality simulation for gastroenterology (GI) endoscopic skills. The use of endoscopy simulation has been well studied in general surgery trainees and GI fellows, but there is limited data for its use in medical resident training. The purpose of this study is to determine if a hands-on high-fidelty GI simulation improves internal medicine resident knowledge and confidence treating common GI conditions.

METHODS: Internal medicine residents at a single-site voluntarily participated in a didactic GI course which was offered in two formats: simulation plus lecture (SIM+lecture) or lecture-only. The 3D Systems GI MentorTM simulator was used to navigate virtual cases on colorectal cancer screening, esophagitis/Barrett's esophagus, peptic ulcer disease (PUD), esophageal varices, and inflammatory bowel disease. Following each case, a brief didactic lecture was given to optimize retention of material. The lecture-only group received the same lecture via a 1-hour online video meeting. An identical post-intervention survey was distributed to all residents two weeks after completion of the session.

EVALUATION PLAN: A pre- and post-intervention REDCap survey was distributed. The survey captured post-graduate year (PGY), subjective confidence on a scale of 0-100, and nine objective multiple choice questions assessing knowledge in managing clinical scenarios. The pre- and post-intervention scores were analyzed using repeated measures ANOVA.

SUMMARY OF RESULTS: Eighteen residents signed up to participate in the study and 12 completed the intervention (66.7%). The overall mean confidence score significantly increased for participants in the SIM+lecture group (59.25 to 81.84) compared to the lecture-only group (61.69 to 67.38, p=0.014). There was a statistically significant increase in confidence treating PUD in the SIM+lecture group (p-value=0.028). The average number of correct questions improved following both interventions, though was not statistically different between groups (p=0.196).

REFLECTIVE CRITIQUE: This pilot study demonstrated the feasibility of trainees to supplement their education using a GI virtual simulator. The use of simulation significantly increased trainee confidence managing common GI conditions over lecture format alone. All PGY-1s in the study chose the SIM+lecture group, potentially highlighting a target audience of this simulation-based education modality. Limitations include a small sample size, lack of randomization, and subjective nature of confidence scores. Results of this pilot study prompted development of a larger simulation curriculum, where all 150 residents in the residency program will learn to manage various conditions based on endoscopic findings.

ABSTRACT #59

RAPID CYCLE DELIBERATE PRACTICE SIMULATION FOR A MATERNAL CARDIAC ARREST WITH OBSTETRICS AND GYNECOLOGY RESIDENTS

Timothy Friedmann, Ceyda Oner, Jared Kutzin

PURPOSE AND GOALS: We created a rapid cycle deliberate practice maternal cardiac arrest simulation for obstetrics and gynecology residents.

By the end of this activity, learners will be able to:

1. Initiate the management of a maternal cardiac arrest
2. Apply basic and advanced cardiac life support skills to a pregnant patient
3. Increase comfort in managing maternal cardiac arrest
4. Describe the differential diagnosis of maternal cardiac arrest

METHODS: We conducted a 2 hours educational activity for obstetrics and gynecology residents at an academic medical center utilizes rapid cycle deliberate practice to teach them the recognition and management of a maternal cardiac arrest.
The case centers on a patient admitted to the labor and delivery floor who is in her third trimester. She develops chest pain and has a subsequent cardiac arrest. The cases uses up to seven rounds of rapid cycles with debriefing after each. Learners are expected to recognize the cardiac arrest, initiate initial management, consider the differential diagnosis, and prepare for a resuscitative hysterotomy.

EVALUATION PLAN: After the simulation case, learners' comfort level with managing cardiac arrest, supportive airway management, chest compressions, uterine displacement, initiation of resuscitative hysterotomy, and communication were assessed with pre- and post- intervention surveys. Pre- and post-intervention surveys were compared using Mann Whitney U tests.

SUMMARY OF RESULTS: For each category, there was a statistically significant increase in comfort level. Sixteen participants completed the pre-simulation survey and fourteen completed the post-simulation survey. Due to discrepancies in unique identifiers that were populated by participants, pre- and post-simulation survey data were not able to be linked by individual response. Therefore, we used Mann Whitney U tests to compare pre- and post- simulation comfort levels reported by participants. The average comfort level reported for managing cardiac arrest was 1.81 in the pre-simulation survey and 3.64 in the post-simulation survey which is a statistically significant difference ($U=19.5$, $p=.00014$). The comfort level with performing supportive airway management went from 1.93 to 4.14 ($U=18.5$, $p=.00028$)

REFLECTIVE CRITIQUE: Despite statistical significance in our analysis, our small sample size, single-center study may hinder the study's power and generalizability. Additionally, we had issues linking our pre- and post-intervention data which limits its utility; we initially planned to use a Wilcoxon signed rank test rather than Mann Whitney U, but were unable to accurately link pre- and post-surveys by unique identifier code. While we had multidisciplinary representation in terms of faculty physicians, this study does not include nursing staff who are integral in the recognition and care of cardiac arrest patients. Finally, our study design did not include retention measurements; future studies should consider interval follow up surveys to assess comfort levels after the intervention.

ABSTRACT #60

A NOVEL SIMULATION-BASED THORACIC POINT-OF-CARE ULTRASOUND (POCUS) CURRICULUM FOR INTERNAL MEDICINE RESIDENTS

HuaHsin Tai, Harrindra Seepersaud, Adam Rothman

PURPOSE AND GOALS: To increase Internal Medicine residents' confidence in recognizing common lung pathologies utilizing POCUS.

METHODS: In a small group setting, resident learners received a thirty minute overview of thoracic ultrasound techniques and image recognition. They subsequently participated in a thirty minute case-based simulation, where they evaluated a patient with sudden shortness of breath, and used POCUS to assist in formulating a diagnosis and treatment plan for the patient. The session was repeated over a six-week period in 2021, and then again over a six- week period in 2023.

EVALUATION PLAN: The study employed paired-sample t-tests and independent t-tests to analyze the pretest and posttest scores of 10 questions, assessing the alterations in learners' POCUS identification. Residents (n = 224) were asked to identify the following ultrasound findings: a-lines, air, b-lines, interstitial filling pattern, stratosphere sign, pneumothorax, pleural effusion, liver, diaphragm, and lung hepatization. The analysis was divided into two segments: one evaluating the overall effectiveness of the simulation session, and the other contrasting the 2023 and 2021 resident groups.

SUMMARY OF RESULTS: across all years of training, and in both the 2021 and 2023 groups, there was a statistically significant difference when correctly identifying all ultrasound findings ($p < 0.05$) following the intervention, suggesting an improvement in knowledge following the sessions. Subgroup analysis showed that the PGY-2 group improved in all test questions, while the PGY-3 group only improved in 3 of the 10 questions. The PGY-3 group overall had higher pretest scores, suggesting a higher baseline knowledge compared to other learners.

Learners in 2023 overall had higher pretest scores compared to residents in 2021, with an overall mean pretest score of 0.7102 compared to 0.6878, and with further analysis specifically showing better recognition of pleural effusions ($p<0.05$). This suggests that the 2023 learners exhibited higher baseline thoracic ultrasound knowledge compared to their 2021 counterparts.

REFLECTIVE CRITIQUE: These findings highlight the immediate benefit that simulation-based POCUS curriculum has in improving resident learner knowledge on thoracic ultrasound. The higher pretest scores in 2023 suggests that the ongoing longitudinal curriculum has also resulted in improved long term proficiency for POCUS topics among resident learners. Nevertheless, it is crucial to consider additional variables that might potentially impact these findings, such as distinct cohort characteristics or other modifications in the educational setting, and to conduct a more comprehensive statistical examination in order to arrive at a conclusive determination.

ABSTRACT #61

THE EFFECTS OF LIGHT ON STRESS LEVELS FOLLOWING A SIMULATED CLINICAL EXPERIENCE

Jared Kutzin

PURPOSE AND GOALS: This study has two goals. First, is to identify whether simulation can sufficiently induce a stress response. The second is to investigate the effects of different colors of light on the stress levels of clinicians following a simulated clinical experience. Research has shown that blue light may have a calming impact while red light may increase attention and awareness. However, blue wavelengths of light have also been demonstrated to impact circadian rhythms and sleep patterns. This study looks at whether clinicians stress level (as measured by heart rate variability) can be impacted by different wavelenghts of light.

METHODS: This randomized control trial places individual clinicians into a stressful simulation (difficult airway leading to potential cardiac arrest). During the pre-brief, simulation, and debriefing, participants wear a Hexoskin device. The Hexoskin is a wearable device that captures heart rate variability, heart rate, respiratory rate, and other biomarkers of stress level. Each segment of the study is marked for analysis so that we can assess that each participant was sufficiently stressed during the simulation. Heart rate variability is assessed as the marker of stress. Following the simulation the participants are randomized to a debriefing conducted under normal flueorescent lighting or under the blue lights installed in the ceiling.

EVALUATION PLAN: The heart rate variability of participants is assessed at baseline, during the simulation, and during the debriefing. The amount of time it takes for the study participants heart rate variability to return to baseline is assessed between the control and study groups.

SUMMARY OF RESULTS: To date, we have shown that clincians participating in planned stressful simulations do demonstrate an increase in heart rate variability, thereby showing the simulation can reproduce a stressful clinical encounter.

So far, and data analysis is still preliminary, we do not see a difference in return to baseline between control and study groups. Further data is being collected and analysed to ensure a sufficient sample size is met.

REFLECTIVE CRITIQUE: We have always thought that simulation may be stress provoking. The study demonstrates in a quantifiable manner the stress level participants in a simulation may experience. The exposure to lighting, while initially thought to help reduce stress, may not be sufficient, by itself, to yeilf significant results in reducing stresslevels. However, qualitatively, the exposure to blue light did have a more calming effect on participants via self-report.

However, the quantitative data may not yield significant results. Staff respite rooms that take a multi-modal approach, including modifying lighting, sounds, and smells may be advanteageous, but more research is needed to demonstrate the impact.

ABSTRACT #62

MASTERY LEARNING OF ECGS DURING MEDICAL RESIDENCY THROUGH DIFFERENT MEANS OF EDUCATION

Anna Sophie Mueller, James Salonia

PURPOSE AND GOALS: A 12-lead ECG is an efficient and affordable technology that can be available at bedside to ensure the prompt and effective treatment of patients in need. As with any other diagnostic technology, however, ECG accuracy depends on interpretation. Many studies have suggested that internal medicine residents and medical students deem their prior education insufficient and commonly miss life threating diagnosis. This study aims to improve residents' confidence and competence in evaluating different ECGs and choosing the correct management strategy. We propose a multimodal approach that features didactics, opportunities for hands on experiences through simulation, as well as spaced repetition to encourage continuous ECG education.

METHODS: We developed an internal medicine ECG teaching website, along with an easily applicable flowchart addressing common ECG scenarios, as well as a hands-on interactive learning session in the simulation lab. To encourage continuous learning, we created quarterly ECG review sessions, during which residents review different cases. We will be using the above mentioned diagnostic flowchart, providing residents with a visual aid in how to best read the ECGs.

EVALUATION PLAN: Our study aims to improve residents' skills and confidence with reading ECGs. Before providing training material, including the website and flowcharts, we asked our residents to complete an anonymous curriculum that includes knowledge-based assessments. These assessments help measure their confidence and competence in accurately diagnosing and managing common ECG scenarios. Following the simulation lab, residents are then asked to complete an anonymous post-test, similar to the pre-test, in order to gauge the effectiveness and efficiency of the project. Additionally, we will integrate survey results on our ECG learning website to show further improvement and highlight the benefits of continuous learning.

SUMMARY OF RESULTS: As this study is ongoing, results are still forthcoming.

REFLECTIVE CRITIQUE: Early feedback suggests that while we can provide learners with a framework and tools to improve their ECG reading skills, learning a subject as broad as ECG reading is highly dependent on an individual's interest and self-motivation. Therefore, the next phase of the study could potentially be improved by adding additional learning tools and ways to increase motivation.

ABSTRACT #63

A NOVEL ON-CALL SIMULATION CURRICULUM FOR INCOMING HOUSE STAFF

Alexander Karol, Katherine Godfrey, Marc Sherwin

PURPOSE AND GOALS: Simulation training is reported by medical students in medical education studies to be the most helpful intervention in preparing them for the transition to being an intern. Simulation training is associated with higher learner satisfaction, improved knowledge, and communication skill acquisition. Baylor University transitioned their on- call curriculum to simulation format and found that over a 10 year period their curriculum significantly improved students' perceived preparedness for being on-call. Student feedback from the transition to residency course, Introduction to Internship, at the Icahn School of Medicine has called for the development of an in-person simulation experience from the prior virtual on-call curriculum. We seek to implement a case-based in-person on-call simulation session and analyze whether this format improves our learner outcomes. The primary objectives of the session is for students (1) to identify whether a problem needs to be addressed in an emergent, urgent, or routine manner and (2) to develop an approach to triaging common clinical problems for which an intern will be the first person contacted.

METHODS: All fourth year medical students in the Introduction to Internship course will be exposed to a 120 minute immersive in-person simulation experience at The Mount Sinai Hospital Department of Anesthesiology HELPS Simulation Center. This session will consist of a 15 minute interactive lecture about session objectives and tips of being on call, followed by four 25 minute high-fidelity on-call simulation scenarios with debriefing and feedback. Cases were adapted from Baylor University Medical School's overnight calls curriculum.

EVALUATION PLAN: We plan to use pre-session and post-session surveys using a 5 point Likert scale to evaluate a change in subjective comfort with the primary objectives and being on-call. A Chi square test will compare pre-session and post-session replies of "average" or above. After 3 months, a short post-session survey will be sent out to evaluate long-term attitudes and retrospective applicability.

SUMMARY OF RESULTS: Simulation sessions will be conducted from January to May 2024, with preliminary results expected to be available immediately after.

REFLECTIVE CRITIQUE: The curriculum will utilize immersive simulation training to improve rising interns' confidence and provide a frame-work for being on-call. Pre-session and post-session surveys are carefully written to evaluate effectiveness of the sessions. Limitations to the study include inability to randomize or have control groups for the intervention, using Likert scale assessments as a surrogate for formal competency assessment, and not being able to assess objective clinical outcomes.

ABSTRACT #64

DEVELOPMENT OF AN IN-SITU POSTPARTUM HEMORRHAGE SIMULATION TRAINING PROGRAM

Anna Stacy, Isley Arruda, Vanya Zvonar, Rachel Solnick, Ardi Mendoza, Duncan Grossman

PURPOSE AND GOALS: As access to obstetrical healthcare becomes increasingly challenging in the United States, the need for Emergency Physicians (EPs) to manage high-stress, low-frequency scenarios, such as Postpartum Hemorrhage (PPH), is increasingly important. Current ABEM guidelines require the completion of 2 weeks of obstetrics or 10 vaginal deliveries but do not specify the procedural management of PPH. Subsequently, past research has found a lack of trainee comfort regarding obstetric conditions, and many trainees in emergency medicine receive no training in the use of uterine balloon tamponade: a life-saving, emergent procedure that can be critical for stabilization to higher levels of care. As a result, further research into optimizing the educational delivery of this training program in enhancing EP preparedness for real-world PPH is needed. We are developing a curriculum to train skills in the medical management of PPH and the procedural use of Bakri and Jada uterine balloon tamponades with the goal of increasing EP management skills and confidence in treating patients with PPH.

METHODS: A two-part curriculum will be designed with the dual goals of teaching EP skills in managing PPH and increasing EP confidence in this management. The curriculum will be developed in collaboration with Mount Sinai Hospital obstetricians based on current literature detailing the techniques and challenges in using the uterine balloon tamponades.

EVALUATION PLAN: EP learners will self-select to participate in a novel training program on PPH. First, they will take a pre-test that contains questions on both PPH management and self-evaluative questions on learner confidence. Next, learners will be given a lecture on PPH, then participate in a simulation session using high-fidelity mannequins and clinician actors performing as other team members such as nurses and technicians. Finally, learners will take a post- test identical to the pre-test.

Pre- and post-test scores will be compared in order to assess whether learning and confidence have increased before and after undergoing this curriculum.

SUMMARY OF RESULTS: The curriculum under study is currently being designed; our plan is to implement this curriculum at the Mount Sinai Hospital's main campus in Winter-Spring 2024. We expect that exposure to this curriculum will increase EP knowledge and confidence in an otherwise under-taught subject.

REFLECTIVE CRITIQUE: Simulation teaching differs from session to session; as a result, learners' experiences of the session will necessarily differ, and the delivered curriculum may not be entirely uniform.

Additionally, learners will opt into this curriculum in their free time, meaning participation may be limited by availability and interest. Lastly, while simulation - particularly high-fidelity sim - has been found to be more effective than other medical instruction methods (Beal et al., 2017), it is impossible to completely mimic a real clinical scenario. Therefore, the impact of the curriculum may not guarantee similar performance in the emergency department.

ABSTRACT #65

BRIDGING THE GAP BETWEEN SEPSIS AND POST SEPSIS

Hammad Sheikh, James Salonia, Susannah Kurtz, Jacob Bell, Ahmed Shaikh, Nikita Desai, Adam Rothman, Priscilla Loanzon, Harrindra Seepersaud, Amit Pradhan

PURPOSE AND GOALS: Sepsis is a global health problem and a major cause for hospital admission. Despite improvements in care, Sepsis cases and hospital admissions attributed to Sepsis continue to increase. Prompt recognition and delivery of high-quality care have improved Sepsis mortality but has resulted in a significant increase in Sepsis survivors who suffer from Post-Sepsis Syndrome. There are well established protocols and management strategies for Sepsis, but there is little information on how to minimize physical disability, cognitive impairment, or health deterioration after Sepsis and for Post-Sepsis Syndrome.

METHODS: The goal of our curriculum is to increase awareness of the diagnosis of Sepsis and Post-Sepsis management. Our curriculum will be composed of a didactic component focusing on basic physiology of Sepsis and Post-Sepsis Syndrome, a review of the Mount Sinai Health System Stop Sepsis Guidelines, and hands on training. These didactic sessions will be supervised by Critical Care faculty trained in the recognition and management of Sepsis. We will focus on major causes of Sepsis readmission, such as heart failure and pneumonia. Our upcoming novel simulation-based educational curriculum will improve recognition and management of patients with Sepsis and Post-Sepsis Syndrome. By incorporating a high fidelity simulation based case Residents will have a unique opportunity to practice and refine their skills.

EVALUATION PLAN: With our initial needs assessment, we recognized a gap in knowledge for Post Sepsis Care. Our project will have pre-assessment questions on Sepsis and Post-Sepsis Syndrome. We will then have focused objectives for education with didactics, implementing the Sepsis pathway, and a high-fidelity simulation training to improve Post-Sepsis management. Finally, administer post-assessments to evaluate the learners' knowledge and behaviors.

SUMMARY OF RESULTS: Currently, we have completed a needs assessment. Our novel high fidelity simulation based case will began in March at the Center for Advanced Medical Simulation (CAMS). Didactic lectures will presented at Academic Half-Day this month. Pre and post assessments will include qualitative and quantative metrics that will be presented during assigned CAMS session. Kirkpatrick model will be included when analyzing the effectiveness of our project. Finally, we plan to track metrics such as utilization of the Sepsis pathway, Sepsis length of stay, and Sepsis 30 day readmission.

REFLECTIVE CRITIQUE: Part of our goal as mentioned in Glassick's criteria is to analyze and provide reflective critique. We recognize that we haven't started our education and simulation case. We would like our outcomes to show that this project was not only feasible, but had a meaningful impact on education. Our limitations are we won't be able to evaluate patient metrics at this time. But with our sessions quickly approaching we will hopefully evaluate the potential impact of our educational initiative with our defined metrics.

ABSTRACT #66

ENHANCING PEDIATRIC RESUSCITATION PREPAREDNESS IN NON-PEDIATRIC EMERGENCY DEPARTMENT BY UTILIZING IN-SITU SIMULATION AND DEVELOPMENT OF A PEDIATRIC EQUIPMENT CHECKLIST

Wei Li, Jonathan DeAssis

PURPOSE AND GOALS: The purpose of the project is to enhance the preparedness of the emergency department at Mount Sinai West, specifically focusing on pediatric resuscitations. Recognizing that pediatric resuscitations are high- stress situations, and given their rarity in non-pediatric emergency departments, it becomes imperative to ensure that the facility is well-equipped and that the staff is adequately prepared to handle such events. The primary aim is to establish a robust system that facilitates efficient responses during pediatric resuscitations.

Our goals of this project would be to:

1. Assess preparedness of the emergency department at Mount Sinai West
2. Evaluate the staff familiarity of pediatric equipemtn
3. Develope a cognitive aid/checklist to enable providers in rapidly identifing necessary equipment
4. Enhance response time of pediatric resuscitations

METHODS:

IN-SITU SIMULATION: Design a pediatric respiratory arrest simulation case incorporating key elements such as the need for intubation, use of Broselow tape, and intraosseous (IO) access. We would run these in-situ simulations 5 times at mount sinai west emergency department. While the simulations is happen we would record the time it takes for staff to locate essential equipment, specifically focusing on intubation equipment, Broselow tape, and IO devices.

CHECKLIST DEVELOPMENT: After collecting the intial observational data we created a checklist that emphasizes the locations of critical equipment for pediatric resuscitations. We would then distribute this checklist to faculty and residents and provide a copy in the pediatric resus bay

After distributing the checklist we plan to run multiple in Situ stimulations utilizing the check lives to evaluate for any improvement of the metrics and collect feedback from the providers and nursing staff and make adjustments to the checklist as needed.

EVALUATION PLAN: The main form of evaluation would involve the pre and post check was time measurements during the pediatric resuscitation including time: to Broselow tape identification, to identifying intubation equipment, to identification of interosseous equipment. We also plan to collect qualitative feedback from the faculty, nursing staff, and residents to make further adjustments to checklist through a survey after the simulations.

SUMMARY OF RESULTS: Still in development at this time

REFLECTIVE CRITIQUE: Still in development at this time

Technology

POSTERS 67-70

ABSTRACT #67

DEVELOPMENT OF A FREE, OPEN-ACCESS EDUCATIONAL TOOL TO FACILITATE NUTRITION LEARNING USING TAILORED CASE- BASED SCENARIOS: "NUTRI-BYTES"

Marni Wilkoff, Samira Farouk, David Thomas, Priya Simoes

PURPOSE AND GOALS: Malnutrition and obesity are prevalent, however graduate and continuing medical education lack dedicated nutrition training. Case-based learning (CBL) tailors learning to specific scenarios and free open-access medical education (FOAMed) tools have revolutionized medical education. Online CBL modules are being used to supplement traditional didactics, but there are no open-access CBLs for nutrition training. "Nutri-Bytes" is an online case collection designed to teach pathophysiology and management of disease states with specialized nutritional requirements.

METHODS: We modeled Nutri-Bytes after NephSIM, an e-learning nephrology platform. We developed 10 interactive cases that teach nutrition assessment, pathophysiology, and specialized nutrition requirements. Each peer-reviewed case mimics a real patient encounter and includes a history, physical, diagnostic, and nutrition assessments, such as malnutrition screening and micro-nutrient deficiencies. Users build a differential diagnosis and are prompted to select the next best step with immediate feedback on response. A summary conclusion page describes steps to the final diagnosis and treatment plan, summarizes key take-away points, and highlights references, guidelines, and resources. Users are encouraged to complete a post-test and anonymous user survey upon completion. This curriculum is also linked to the Fellow's Nutrition curriculum.

EVALUATION PLAN: Website usage including number of website views and case completion rate were analyzed. Two separate questionnaires including a post-test with 8 multiple choice questions assessing knowledge after completion of the modules, and an anonymous survey containing multiple-choice questions, Likert scale questions, and open comments to elicit users' input on quality of infographics, explanations, and ease of use, were available on the website upon completion of the cases.

SUMMARY OF RESULTS: Since its launch one year ago, Nutri-Bytes has received 2,320 page views from 449 independent visitors (average of 5 views/visitor). Eleven users (11/449, 2.4% response rate) have taken the post-test, and the average number of questions correct was 6.5/8 (81%). 80% of users correctly answered all post-test questions and noted that the cases would change their clinical practice. Feedback was positive, with >90 % of users reporting that cases were interactive with appropriate level of difficulty and improved their knowledge.

REFLECTIVE CRITIQUE: Initial response is encouraging but 6/10 (60%) of respondents are gastroenterology fellows. While this is the intended audience, learners at all levels would benefit, thus a focus will be to improve reach at different levels. While there was increased engagement during the initial phase of launch, this has decreased in the last two months. We will proactively increase engagement on social media to increase the case completion rate and survey responses. Third, we have 10 cases and plan to release new cases monthly, with notifications to email subscribers and followers on social media.

ABSTRACT #68

A NOVEL, TECHNOLOGY-DRIVEN HEALTH PROFESSIONS EDUCATION PATHWAY FOR CROSS-DISCIPLINARY FELLOWS

Mirna Mohanraj, Brandon Veremis, Geraldine Vargas, Paru Patrawalla, Brijen Shah

PURPOSE AND GOALS: Most Health Professions Education (HPE) Pathways target single-specialty learners and rely on in-person education. Fellows who aspire to HPE careers may struggle to develop Educator Communities. We leveraged technology and systemwide Clinician Educators (CE) Faculty to implement an HPE Pathway for cross- disciplinary fellows in the Mount Sinai Health System (MSHS).

METHODS: In 2020-2021, the authors partnered with systemwide CEs to design a Teaching Scholars Curriculum (TSC) for Pulmonary & Critical Care Medicine (PCCM) fellows. Fourteen interactive modules were developed. Course delivery over 12 months was 75% asynchronous and 25% synchronous online. In 2022-2023, the TSC served as the foundational coursework for an enhanced HPE pathway for multi-specialty fellows including: a formalized Selections Committee; parallel implementation of a medical education scholarship program; biannual networking events; a multi- tiered mentorship structure; and biannual advisory review.

EVALUATION PLAN: Pre- and post-course and -module surveys were administered utilizing a five-point Likert scale. Learner scholarship productivity and post-course employment was tracked. Development of new digital education tools by course faculty was tracked.

SUMMARY OF RESULTS: Eight fellows representing six fellowship programs (PCCM, Infectious Diseases, Gastroenterology, Hematology-Oncology, Cardiology, Nephrology) from five hospitals were admitted. In their exit survey, the learners would recommend that others participate in the TSC (mean 4.875) and felt that the TSC increased their CE skills (mean 4.875) and knowledge (mean 4.875). All eight learners presented scholarship in a rapid-fire abstract session and secured CE faculty appointments; three were retained in the MSHS. 70% of course faculty generated new, interactive teaching modules.

REFLECTIVE CRITIQUE: We describe the successful implementation of a technology-driven HPE Pathway that engaged cross-disciplinary fellows and faculty. The blended learning model allowed for the flexible participation of time- constrained, geographically distanced learners. Learners whose home programs lacked a breadth of CE faculty developed an Educator Community. In-person networking strengthened professional identity formation. The Pathway provided learners with a structure for education scholarship; however, the 12-month duration was insufficient time for further dissemination. Learners secured desired CE faculty positions. Course faculty developed comfort with digital education skills. The HPE Pathway's technology-driven structure is sustainable, scalable, and resilient in the face of unplanned education disruptors. Future directions may include improved program evaluation via the American College for GME CE Milestones and evolving curricular modules to address newer technologies (i.e., artificial intelligence in medical education). Training programs that lack a breadth of divisional CE faculty or scholarship mentors may especially benefit from such a cross-disciplinary and technology-driven design.

ABSTRACT #69

IMPACT OF COVID-19 ON GERIATRIC ELEARNING: NEW USER DEMOGRAPHIC SHIFTS IN THE VA GERIATRIC SCHOLARS PROGRAM

Yuka Shichijo, Eugenia Dorisca, Helen Fernandez, Judith Howe, Fred Ko

PURPOSE AND GOALS: The COVID-19 pandemic has heightened the need for efficient geriatric care education and accelerated the transition to online learning. The VA Geriatric Scholars Program's Virtual Learning Community (VLC) has responded by expanding its eLearning offerings in geriatrics. This study examines changes in demographic characteristics and educational course utilization among new VLC users after the emergence of COVID-19.

METHODS: We assessed the number of new VLC users, categorized by geography (state), demographics (age, sex, race, profession), and enrollments in 10 educational courses (e.g., Medication Management, Falls), from Mar 2017 to Feb 2023. Variables from 3 years before ("Pre-COVID") and after ("Post-COVID") the outset of COVID-19 pandemic, defined as Mar 2020, were compared. Differences in the proportion of these variables were evaluated by Chi-square.

EVALUATION PLAN: User reaction after completion of 14 multimedia modules, measuring rates of satisfaction and recommendation to other professionals, were compared Pre- and Post-COVID.

SUMMARY OF RESULTS: The number of new VLC users increased Post-COVID (N=1,642 vs N=1,587 Pre-COVID), with a most notable difference in the 1 year after the outset of COVID (N=650, Mar 2020 - Feb 2021 vs N=354, Mar 2019 - Feb 2020). Post-COVID, new user registrations increased in the Southeast (NC, SC, GA, FL) by 407% (from N=30 (6%) to 122 (22%), p<0.001) and Northeast (MA, RI, NH, ME, VT, CT, NJ, PA) by 285% (from N=48 (9%) to 137 (25%), p<0.001), except NY state which decreased by 366% (from N=212 (40%) to 58 (11%), p<0.001). Demographically, there was an increase in new users under 40 years of age (N=565 (36%) vs 896 (55%), p<0.001), Hispanics (72 (4%) vs 99 (6%), p=0.04), physicians (199 (13%) vs 254 (15%), p=0.02), and non-clinicians (276 (17%) vs 447 (27%), p<0.001). Conversely, there was a decrease in White users (610 (38%) vs 513 (31%), p<0.001), advanced practice provider (197 (12%) vs 136 (8%), p<0.001), and registered/licensed nurses (466 (29%) vs 391 (24%), p<0.001). Educational course enrollment increased in Medication Management (from N=94 to 399), Interdisciplinary Teamwork (from N=58 to 186), and End-of-Life Care (from N=152 to 229). User reaction in satisfaction and recommendation rates were higher in some multimedia modules (e.g., Depression and Dementia Caregiving) Post-COVID.

REFLECTIVE CRITIQUE: The VLC enhanced the scope and accessibility of geriatric education after the emergence of COVID-19 as reflected by increases in new user and educational course enrollment. Shifts in new user demographics suggest that this eLearning modality may be well-suited towards the need of younger and non-clinician learners, whereas increases in educational course and module enrollment indicate learning needs in several core content areas of geriatric care. Future research is needed to better understand how disparate geographic impacts of the pandemic, variable access to geriatric resources, and the extent of VLC's outreach influenced usage patterns of this eLearning platform.

ABSTRACT #70

EVALUATING THE EFFICACY OF A SMARTPHONE-ASSISTED HOME-BASED MICROSURGERY TRAINING WORKBOOK: A PILOT STUDY

Anya Wang, Arjun Nanda, Nicole Gladstein, Peter Henderson

Purpose and Goals: Microsurgery training is challenged by the lack of specialized equipment outside the operating room and demanding trainee schedules requiring flexible learning methods. The near ubiquity, magnification, and video recording capabilities of smartphones offer an opportunity for self-directed, home-based training. To explore this potential, this study introduces a microsurgery workbook with a calibration tool for standardized magnification across devices and locations, as well as various microsurgical drills for skill development. By applying widely available technology within an educational framework, this study evaluates the effectiveness of this workbook as a portable training method for improving microsurgery competencies of medical trainees.

METHODS: Medical students with some prior suturing experience were recruited across multiple institutions. The workbook included drills in four fundamental microsurgery skills: forceps handling, cutting, needle passing, and knot tying. All activities were standardized at 4x magnification, achieved by aligning a printed standardization bar with the magnification indicator on the smartphone, which was positioned on an elevated platform.

Participants were initially surveyed to assess their previous experience, confidence, and knowledge in microsurgery. They were then provided microsurgery tools, artificial skin, and 6-0 sutures to perform an incision closure with five simple interrupted sutures as a baseline skill assessment, which was graded by a microsurgery expert using a standardized rubric.

After viewing an instructional video on microsurgery equipment handling, students completed the workbook drills in a supervised setting. Students underwent the same skill assessment after completing the workbook to evaluate improvement. The study concluded with a post-workbook survey, paralleling the initial one, to gauge changes in confidence and microsurgery knowledge.

EVALUATION PLAN: The impact of the workbook on student microsurgery performance was analyzed through a comparative evaluation of survey responses and skill levels before and after completing the workbook drills.

SUMMARY OF RESULTS: Complete results have not been obtained yet.

REFLECTIVE CRITIQUE: This microsurgery training setup offers advantages including cost-effectiveness, accessibility, and the flexibility to practice in various settings. This is particularly beneficial for individuals with demanding schedules as it allows for a personalized learning pace. However, the reliance on smartphone-based magnification, which provides only a 2- dimensional image, may not fully replicate the depth perception required in microsurgery, and the variability in smartphone camera quality could affect training consistency. While the workbook focuses on fundamental skills, it only covers a subset of the skill set needed in microsurgery, suggesting potential for expansion in future versions. Despite these challenges, the workbook may represent a step forward in microsurgical education

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