

# WHEA Fellowship Graduation

March 18, 2020  
5:00-6:30 pm  
WHSCAB Plaza



EMORY

WOODRUFF  
HEALTH  
SCIENCES  
CENTER

Woodruff Health  
Educators Academy





# About Us

Formed in 2017, the Woodruff Health Educators Academy (WHEA) brings together educators across the health sciences at Emory to promote and support the practice and scholarship of teaching and learning. The program's vision is to foster an interprofessional community of educators across the health sciences at Emory.

## Order of Events

### WELCOME & OVERVIEW OF WHEA

WHEA Co-Directors  
Linda Orkin Lewin, MD  
Ulemu Luhanga, PhD

### PRESENTATION OF CERTIFICATES BY GROUP FACILITATORS

Nate Spell and Jodie Guest  
Linda Orkin Lewin and Marie Johanson  
TJ Murphy and Ulemu Luhanga  
Laura Kimble and Maha Lund  
Eric Weeks and Katie Monroe  
Taryn Taylor and Ulemu Luhanga

### SELECTED PRESENTATIONS

Educational Scholarship Fellows  
Jonie Fawley, MPAS, PA-C  
Thomas Moore Jr., MD  
Melissa Owens, PhD, RN, CNE, FHFSA

Teaching Fellows  
Sarah Blake, PhD, MA  
Devon Greene, MD, MPH

### CLOSING

WHEA Co-Directors



## Fellowship in Educational Scholarship Graduates

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## Teaching Fellowship Graduates

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| 26 | Jennifer Brandt       | 33 | Munish Luthra      |
| 27 | Abby Britt            | 34 | Erica Marshall Lee |
| 28 | Yelena Burklin        | 35 | Vahid Serpooshan   |
| 29 | Devon Greene          | 36 | Sarah Varghese     |
| 30 | Jamika Hallman-Cooper |    |                    |



# **Educational Scholarship Fellows**



*J. Shirine Allam, MD  
Assistant Professor of Medicine  
Emory University School of Medicine*

**WHAT PROBLEM WAS ADDRESSED?**

In the past 2 ACGME surveys of the PCCM fellows, only 69% of fellows were satisfied with the feedback they received. We aimed to identify ways to improve the quality of and the fellows' satisfaction with feedback.

**WHAT WAS TRIED?**

Methods: Surveys were sent to fellows and clinical faculty members. A focus group of fellows came up with solutions which were implemented. Surveys were sent to evaluate the effect.

Results: The response rate to the fellows and faculty surveys were 80% and 61.5%. The fellow survey validated the results of the ACGME survey. Only 40% of faculty were satisfied with the quality of the feedback they gave. Eighty percent wanted further training. The following short-term solutions were identified and implemented:

- 1 - Faculty development about how to give effective feedback in the form weekly emails.
- 2 - Fellow education about formative feedback.

Follow-up surveys were sent to both groups with response rates of 82% and 54%. Most faculty reported always reading the emails and regularly learning something new. 74% reported having used the tips when giving feedback and 94% were likely to use the tips in the future. Fellows reported more regularly discussing expectations with their attendings (0% vs. 50% of the time) and were more satisfied with the feedback they received (69% vs 79%).

**WHAT LESSONS WERE LEARNED?**

The satisfaction of our fellows with formative feedback seemed to improve after the implementation of educational activities for both fellows and faculty. Faculty were eager to engage. Continued work is needed to build a trusting relationship and a culture of feedback.



*Melissa (Moose) Alperin, EdD, MPH, CHES  
Assistant Professor, Rollins School of  
Public Health, Emory University*

**WHAT PROBLEM WAS ADDRESSED?**

In response to the accreditation criteria that MPH graduates must “perform effectively on interprofessional teams,” the Executive MPH (EMPH) program at the Rollins School of Public Health, an online MPH for working professionals, developed an interprofessional education (IPE) course, PUBH 501D: Inter-Professional Education and Training. This project sought to determine if EMPH students demonstrate an increase in attitude towards interprofessional collaboration as demonstrated by an increase in pre/post-assessment scores on the Nebraska IPE Attitude Scale (NIEAS).

**WHAT WAS TRIED?**

Through a didactic module, PUBH 501D students are exposed to IPE competencies and the importance of interprofessional practice. Students then participate in a remote session where they are placed into discussion groups

with peers representing a minimum of three professions. An opioid case study is presented and groups work together to create recommendations that address the issues presented.

For the case study session, students, who are all working professionals, represent the discipline of their day job. For the feedback portion of the course, discussion groups create a video of their recommendations and each student then provides comments on at least two other group videos. Students participating in PUBH 501D complete a pre and post-assessment.

**WHAT LESSONS WERE LEARNED?**

For the spring 2020 offering, paired t-tests were used to examine changes in interprofessional attitudes following the course using the NIEAS. Preliminary data showed that overall, students demonstrated a positive attitude towards interprofessional collaboration both before and after participating in PUBH 501D. All of the Nebraska subscales increased following the course, with statistically significant increases observed in two subscales, “team approach to healthcare” (p=0.024) and “self-efficacy as a team member” (p=0.010)



*Robert O. Cotes, MD  
Assistant Professor of Psychiatry  
Emory University School of Medicine*

**WHAT PROBLEM WAS ADDRESSED?**

Psychiatry residency training directors are faced with a rapidly rising number of applications from qualified candidates. Given the significant time and energy program directors spend evaluating applicants and training their residents, predictors of performance during residency training are needed.

**WHAT WAS TRIED?**

The authors conducted a retrospective analysis of milestone attainment at the spring of the third year (N=57) for five consecutive classes in the General Psychiatry Residency Training Program at Emory. Predictor variables included medical school class rank, psychiatry medical school clerkship grade, USMLE Step 1 score, USMLE Step 2 score, position on the final rank order list, presence of disciplinary action during residency

training, and presence of vocal constructive criticism of the program during residency training. Using multiple linear regression, the authors analyzed predictors of milestone attainment using summed scores for each of the six ACGME core competencies, and analyzed global performance using Aggregate Overall Milestone Score (AOMS), which was calculated by summing the score of the 22 milestone subcompetencies.

**WHAT LESSONS WERE LEARNED?**

Significant predictors of higher AOMS at the end of the third year included attending a Tier 1 medical school, obtaining an Honors/A Grade in psychiatry clerkship, and the absence of disciplinary action taken against the resident during training. Attending a Tier 1 medical school also predicted higher Patient Care, Medical Knowledge, and Systems Based Practice milestone scores. USMLE Step 1 and Step 2 scores did not predict overall milestone scores at the end of the third year of training.



*Kari Esbensen, MD, PhD  
Assistant Professor of Medicine  
Emory University School of Medicine*

**WHAT PROBLEM WAS ADDRESSED?**

Effective communication skills enable physicians to provide healthcare better aligned with patients' values/priorities; identify unmet psychological/social/spiritual needs that might interfere with optimal care; and enhance therapeutic partnerships with patients. However, students report that they feel unprepared and uncomfortable about delving into "deeper" conversations with their patients to achieve these important aims. Students also express dissatisfaction with role playing, didactic sessions, and/or the use of standardized patients to teach effective communication skills. Our goal was to model – and allow students to practice – invaluable communication skills with their own patients.

**WHAT WAS TRIED?**

We implemented a novel curriculum within the Medicine Clerkship utilizing bedside teaching/role-modeling, directly-observed student-patient encounters, and formative

feedback to enhance students' skills and confidence in communicating with seriously-ill patients. We evaluated the effectiveness of this curriculum by administering pre- and post-clerkship surveys to assess (1) student preferences regarding communication skills training and (2) students' self-assessments of their increased confidence and proficiency in communicating with seriously-ill patients before and after the intervention.

**WHAT LESSONS WERE LEARNED?**

The greatest improvements were seen in students' confidence discussing patients' understanding of illness; exploring psychosocial concerns/barriers to care; discussing religious/spiritual issues; and discussing poor prognosis with seriously-ill patients. Most students (82%) preferred bedside teaching of communication skills (rather than didactics or role-playing/standardized patients) after having this opportunity. Students identified the importance of silence in these encounters, as well as their uneasiness with such silence. Students expressed surprise at the efficiency of such in-depth conversations, acknowledging that they were "wise investments of time," yielding invaluable information about their own patients, once time was made to truly listen.



*Jonie Fawley, MPAS, PA-C, Assistant Professor, Family & Preventive Medicine Emory University School of Medicine*

#### **WHAT PROBLEM WAS ADDRESSED?**

Does active learning pedagogies and flexible classrooms improve physician assistant (PA) student scores on standardized testing?

#### **WHAT WAS TRIED?**

A quality improvement study was designed to evaluate the integration of active learning pedagogies into a PA didactic neurology module and the impact on the scores of the neurology section of the standardized Physician Assistant Clinical Knowledge Rating and Assessment Tool 1 (PACKRATTM 1).

The didactic neurology module curriculum was modified into a hybrid of 50% traditional lecture-based sessions and 50% active learning sessions. The active learning sessions consisted of flipped classroom, team based, and problem-based learning activities. Participants included 54 Emory University PA students enrolled in the Class of 2019 and 53 students enrolled in the Class of 2020.

#### **WHAT LESSONS WERE LEARNED?**

After the implementation of the hybrid curriculum into the PA didactic neurology module, there was an improvement in scores on the PACKRATTM 1 neurology section for the Class of 2019 and the Class of 2020. The Class of 2018 was the control group with a 100% traditional lecture-based curriculum. The Class of 2018 average score for the neurology section was 0.42% above the national average. The Class of 2019 average score for the neurology section increased to 4.7% above the national average. The Class of 2020 average score for the neurology section increased to 9.19% higher than the national average.

There is substantial evidence showing improved exam scores and lower failure rates with active learning compared to traditional lecturing.<sup>1</sup> The traits of millennial learners favor active learning pedagogies and flexible classrooms. Medical educators must provide a curriculum to meet the demands of today's healthcare providers who are expected to become lifelong learners and employ critical thinking and problem-solving skills.

*Reference: 1. Adv Physiol Educ. 2016 Dec;40(4):446-453.*



*Roshan George, MD  
Assistant Professor of Pediatrics  
Emory University School of Medicine*

**WHAT PROBLEM WAS ADDRESSED?**

The current prevalence of pediatric kidney disease and the need to have a fundamental understanding of aspects of renal functioning for any physician, makes it imperative that pediatric residency trainees get a strong foundational experience in pediatric nephrology. There is limited published literature on the knowledge base and comfort level of residency trainees in caring for patients with kidney disease; as well as dearth of innovative models for exposure to the varied aspects of this specialty. We aimed to address this gap in our project.

**WHAT WAS TRIED?**

Methods: This curriculum provides exposure to pediatric nephrology for interns (1st year residents/PGY1), in outpatient and inpatient settings, in the diagnosis, evaluation, and management of

basic pediatric nephrology conditions. The interns receive a short study guide which takes about 30-45 minutes to review, two 30 minutes lectures, as well as exposure to patient encounters (inpatient and outpatient) with faculty supervision.

**WHAT LESSONS WERE LEARNED?**

Results: A needs assessment was done among faculty and outgoing residents who overwhelmingly supported nephrology exposure early, in the intern year. We will administer a pre-test and a post-test as well as a qualitative survey for assessment. Changes in the American Board of Pediatrics, in-service exam scores for the residents overall will be evaluated, after instituting this curriculum.

Conclusion: This curriculum, directed towards incoming first-year residents may also be used by other trainees in nephrology. It will provide basic education, exposure to the field as well as specific outcome measures to evaluate and improve the rotation.





*Erin Grady, MD, CCD, FACNM  
Acting Associate Professor  
Radiology and Imaging Sciences  
Emory University School of Medicine*

**WHAT PROBLEM WAS ADDRESSED?**

Radiation emergencies are potentially catastrophic and may not be immediately obvious. Therefore, an Interdisciplinary Curriculum on Radiation Emergency Management is planned to better educate trainees.

**WHAT WAS TRIED?**

A half day program is planned for May 14, 2020 to address concepts related to radiation emergencies covered by the International Atomic Energy Agency (IAEA), Radiation Emergency Assistance Center/Training Site (REAC/TS), Centers for Disease Control (CDC) and Center for Rad/Nuc Training at the Nevada National

Security Site (CTOS) under the auspices of the National Nuclear Security Administration. The curriculum will be assessed by pre-test and post-test. Invited participants include local public health professionals as well as faculty and trainees in the following disciplines: emergency medicine, nuclear medicine, radiology, radiation oncology and medical physics.

**WHAT LESSONS WERE LEARNED?**

As the course has yet to be completed due to scheduling issues for those in multiple disciplines, not all lessons have been elucidated. Findings and curriculum will be published. To date, lessons learned are to allow plenty of time to ensure planning for groups in multiple disciplines.





*Chanda Graves, PhD*  
*Assistant Professor*  
*Psychiatry & Behavioral Sciences*  
*Emory University School of Medicine*

#### **WHAT PROBLEM WAS ADDRESSED?**

The ability of health care to achieve its objectives depends on effective interprofessional teamwork of health care professionals embracing the tenets of team-based care (Interprofessional Education Collaborative Expert Panel, 2011). Despite this, few curricula have been developed to increase interprofessional competencies for health service psychologists. As such, the feasibility and acceptability of an innovative curriculum to improve interprofessional clinical competence for psychology trainees was assessed.

#### **WHAT WAS TRIED?**

Methods: Two psychology trainees (practicum student and intern) are participating in the initial launch of the curriculum and will provide feedback

regarding the content of the curriculum. They will also complete measures assessing their satisfaction with and usefulness of the curriculum. An outside colleague who supervises psychology students doing similar work and our staff psychiatrist will provide final feedback on the curriculum and its impact on the trainees' competencies.

Results: Thus far, feedback suggests that psychology interns prefer an online training curriculum that they can complete at their own pace. One student reported that the curriculum should be spread out throughout the rotation (or at least half of it) and not completed all at once to allow trainees time to get acclimated to the rotation. Faculty members will provide feedback on future revisions to content areas based on the impact of the curriculum and trainee feedback.

#### **WHAT LESSONS WERE LEARNED?**

Conclusions: This study seems to be demonstrating the initial feasibility and acceptability of an online curriculum that places minimal burden on infrastructure and promotes trainee autonomy regarding learning objectives. This initial first phase is an important step in evaluating the efficacy of the curriculum.



*Krysta Johnson-Martinez, MD  
Assistant Professor, Department of Medicine  
Emory University School of Medicine*

#### **WHAT PROBLEM WAS ADDRESSED?**

Health professions training programs are required to incorporate quality and safety principles to meet core competency requirements (QSEN/ACGME), and interprofessional (IP) teamwork is fundamental to healthcare improvement. A QI and Safety bootcamp was designed for IP trainees to gain skills to apply to QI projects.

#### **WHAT WAS TRIED?**

An IP group of 22 learners participated in 26 hours of training over seven sessions covering quality and safety competencies. The curriculum included pre-work, theory bursts, and small group activities. A personal improvement project (PIP) provided trainees an opportunity to apply QI skills and receive feedback. Curriculum evaluation included formative feedback, summative program evaluation, PIP, and QI knowledge (SQI-TAT) pre and post course completion.

Results and Outcomes: Each session was evaluated using the “Two Minute Paper” technique. Topics needing additional clarification were reviewed. An end of course survey (Likert and open response items) was completed by 18 trainees, with the majority commenting on the value of the IP nature of the training. Trainees’ average response about usefulness of content to their work was 4.5 out of 5. The PIP presentations were useful for assessing application of learning and providing feedback. Trainees used the Cause-Effect Diagram and Process Map in problem analysis. Not all participants applied change concepts to guide interventions or implemented a test of change during the bootcamp.

#### **WHAT LESSONS WERE LEARNED?**

Training was an effective way to teach quality and safety concepts to an IP group of trainees. Participants applied QI and safety concepts in small group activities and PIPs. Participants requested additional formative feedback for their PIPs.



*Noble Maleque, MD, FHM, FACP  
Assistant Professor of Medicine  
Emory University School of Medicine*

**WHAT PROBLEM WAS ADDRESSED?**

At Emory University Hospital Midtown, attending faculty have limited opportunities to participate on teaching services due to finite number of teaching blocks available.

**WHAT WAS TRIED?**

In order to increase the number of available teaching blocks, the duration of teaching service was changed from 14 days to average 10 days. For a calendar year, this would increase the number of total blocks from 52 to 70. Our hypothesis was that a 10day rotation would decrease fatigue in attending faculty, would increase teaching effectiveness, and improve ability to observe learners without negatively affecting the resident perception of teaching and supervision to their education.

**WHAT LESSONS WERE LEARNED?**

Faculty who participated on teaching service both on 10 day blocks and 14 days were surveyed on their attitudes regarding their experience and effect on fatigue and learners (53% response rate). The majority preferred the 10 day to the 14 day block with major reason being reduced exhaustion. However, the faculty did not feel they were more effective teachers and did not feel more capable of providing direct observation of learners. The two most common themes of dissatisfaction with decreased duration of teaching service was feeling less “connected” to learners and feeling limited in ability to provide effective feedback and monitor learner response to feedback. The rotation evaluation by residents related to overall quality of education and adequacy of attending supervision was also lower with 10 day attending rotations.



*Thomas J. Moore, Jr., MD  
Assistant Professor  
Department of Orthopaedic Surgery  
Emory University School of Medicine*

**WHAT PROBLEM WAS ADDRESSED?**

Burnout is a self-reported job-related syndrome that can affect physicians and medical trainees. Emotional intelligence has been shown to be protective of burnout in some professions, including certain physician groups, but has not been extensively studied in medical students. We hypothesized that higher emotional intelligence would be associated with lower levels of reported burnout during the clinical years of medical school.

**WHAT WAS TRIED?**

We administered three surveys assessing emotional intelligence to clinical year medical students at Emory. The DRS-15, which measures hardiness and resilience, the Grit Scale, which measures

perseverance and desire to accomplish goals, and the Reading the Mind in the Eyes Quiz, which measures empathy and the ability to interpret the emotions of others were used. The Professional Fulfillment Index (PFI), a burnout and professional fulfillment measure was also used.

The study population included 68 medical students. PFI and EI scores were positively correlated ( $R=0.55$ ,  $p<0.001$ ). Following multivariable correction for sex and year, EI scores maintained a significant association with PFI scores ( $p<0.001$ ). The results confirmed our hypothesis that higher EI was associated with decreased burnout in medical students.

**WHAT LESSONS WERE LEARNED?**

Understanding potential risk factors for burnout, tailored strategies for coping might be possible. Furthermore, if emotional intelligence scores are incorporated into the medical student selection process, matriculated students could be better prepared for the stresses of medical training and be less prone to burnout.



D. David O'Banion, MD  
Assistant Professor, Department of Pediatrics  
Emory University School of Medicine

#### WHAT PROBLEM WAS ADDRESSED?

Early Relational Health (ERH) is a growing construct in pediatrics whereby the healthcare professional assesses the quality and strength of parent-child interactions during routine clinical experiences. However, ERH lacks a biomarker or a standard assessment method.

#### WHAT WAS TRIED?

A research lab at Columbia University Medical Center developed an instrument from distilling hours of labor-intensive video coding of parent-child interactions, and this tool is based on ERH principles. The Welch Emotional Connection Screen (WECS) (Frosch, Fagan et al. 2019, Hane, Lacoursiere et al. 2019) is based on 3 minutes of interactions between a parent and their young child sitting on their lap. This screener shows potential to predict developmental and behavioral problems

later in life and offers a window into the earliest treatments. Both of these factors – prediction and treatment – make it likely that the WECS can become a part of pediatric care. Problem: Teaching residents to use an abstract, interactive measure that engages their social-emotional intelligence was predicted to be challenging.

Using Rapid Prototyping, a series of iterative cycles of improvement were implemented to design and polish an educational program for ERH in pediatric residency. After several months of improvement, the program was trialed for all residents on the Developmental and Behavioral Pediatrics Rotation.

#### WHAT LESSONS WERE LEARNED?

From this experience, we learned that pediatric residents in their first year of training can learn the skills of ERH scoring by focusing on videos of interactions. Next steps include taking the WECS to live clinic observations, and presenting this work at Pediatric Academic Society.

*Frosch, C. A., et al. (2019). "Validation study showed that ratings on the Welch Emotional Connection Screen at infant age six months are associated with child behavioural problems at age three years." Acta Paediatrica 108(5): 889-895.*

*Hane, A. A., et al. (2019). "The Welch Emotional Connection Screen: validation of a brief mother-infant relational health screen." Acta Paediatrica 108(4): 615-625.*



*Melissa I. Owen, PhD, RN, CNE, FHFSA  
Assistant Clinical Professor, Nell Hodgson  
Woodruff School of Nursing, Emory University*

#### **WHAT PROBLEM WAS ADDRESSED?**

Mental health issues in college students are on the rise. Nursing students may experience higher stress and anxiety levels in relation to general college students. However, limited data differentiates between traditional BSN (tBSN) and accelerated BSN (ABSBN) students.

#### **WHAT WAS TRIED?**

This descriptive study compared mental health characteristics and stressors between these two groups using the Psychological Distress Profile (PDP) and the Perceived Stress Scale (PSS).

Participants were also asked to identify their most common source of stress and demographic data. A total of 72 students completed the survey (21 tBSN and 51 ABSN).

#### **WHAT LESSONS WERE LEARNED?**

Mild to moderate psychological distress was identified with the PDP total score and moderate levels of stress were identified on the PSS.

Although mean scores were higher for the tBSN group on the PDP total score (49.52 vs 47.10) and the PSS (21.29 vs 19.39) these differences were not statistically significant.

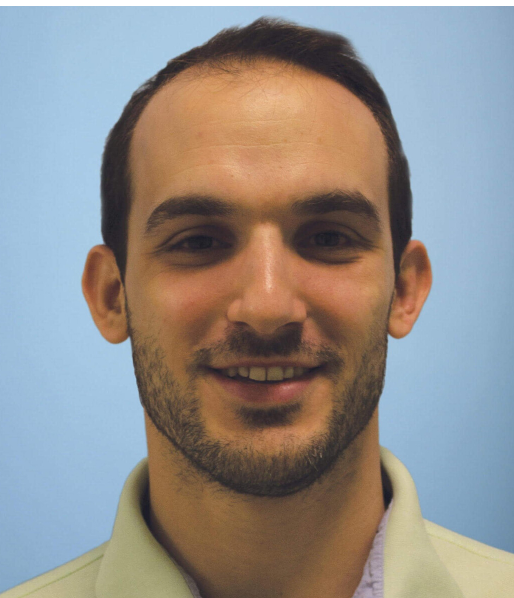
The PDP total score and the PSS score were positively correlated,  $r=.778$ ,  $p<.001$ . Other concerning findings were identified for students. ABSN students reported more anxiety (52.9%) and depression (43.1%) diagnoses than tBSN students (28.6% and 23.8%

respectively). Overall, 17.1% of participants reported a history of self-harm or suicide attempt. Finally, 8.5% of students reported food insecurity. Common reasons for stress included academic obligations and financial concerns.

This study identified that our nursing students are currently experiencing mental health concerns. In addition to overall well-being, previous studies have suggested a link between mental health and academic performance.

Therefore, further investigation and development of support programs is warranted.





*Leonidas Panagiotakopoulos, MBBS  
Assistant Professor, Department of Pediatrics  
Emory University School of Medicine*

**WHAT PROBLEM WAS ADDRESSED?**

In post-medical school training, little relative emphasis is placed on trainees' inter-personal skills. Self-evaluation and reflection on non-verbal skills and body language is not expected or required in any training or medical working environment. To-date there are no studies examining how non-verbal communication correlates with physician's improvement of teaching skills.

**WHAT WAS TRIED?**

Aim: Assess the effect of video-based self-evaluation of non-verbal communication has on patient-physician interactions in the outpatient pediatric endocrinology office. Methods : 5 physicians (PGY4-PGY6) in the Division of Pediatric Endocrinology were recruited to be secretly recorded during a typical patient-doctor

interaction. Six interactions were recorded for each trainee. At the end of each visit, parents used a previously validated Communication Assessment Questionnaire (CAQ-patient) to rate the interaction (maximum 70 points for professionalism and 49 points for non-verbal communication). After completion of all 6 visits, enrolled physician subjects used part of the questionnaire (CAQ-physician) to self-evaluate their non-verbal communication (max score 49). This will be followed by another six patient-doctor interactions with matched patient-related presenting complains as the first six visits for each enrolled physician subject. Scores of CAQ will be compared prior to and after self-review of the video.

**WHAT LESSONS WERE LEARNED?**

Preliminary Results: 1) Subjects with higher non-verbal communication scores are rated as having higher professionalism scores. 2) Subjects with more clinical experience (PGY6) tend to score themselves higher in CAQ-physician scores and their scores are further away from the corresponding CAQ-patient scores. 3) Subjects with lower CAQ-patient scores showed greater improvement in of non-verbal communication skills post self-evaluation.



*Ted Pettus, PhD  
Assistant Professor, Dept. of Cell Biology  
Emory University School of Medicine*

#### **WHAT PROBLEM WAS ADDRESSED?**

Health care students are asked to continue mastering difficult topics after a full day of school. With the goal of promoting effective and efficient study for middle to low performing anatomy students, I produce instructional videos intended to draw and maintain attention on important anatomical topics. I aim to provide a study method that enables students to advance a topic when their motivation and focus are exhausted from perpetual demands of medical education.

#### **WHAT WAS TRIED?**

Students access the videos on an interactive platform. Following each section the students must answer topical questions correctly to

continue. Incorrect answers send students back to research and try the question again. A student survey for each video assesses the impact on attention, learning and retention. In addition, we will assess if this exercise motivated them to study, and if they would willingly repeat exercise.

While at this time surveys have not been conducted, a recent class had access to the interactive videos. I interviewed a few students and asked questions to evaluate their understanding of the subject covered. Most reported enjoying the videos, but they tend to have used it passively as entertainment and did not take time with the embedded questions and drawing exercises.

The videos were not introduced as part of the course and students were not held accountable for associated questions (they advanced the video even if they answered questions incorrectly.)

#### **WHAT LESSONS WERE LEARNED?**

In conclusion, it is important that we introduce these videos as part of the course, and that the embedded questions be assessed and graded.





*Imelda Reyes DNP, MPH, APRN  
Associate Professor  
Nell Hodgson Woodruff School of Nursing  
Emory University*

#### **WHAT PROBLEM WAS ADDRESSED?**

This is a quality improvement educational program to replace one exam within a semester. Pediatric Nurse Practitioner (PNP) students are graduate students in the School of Nursing.

Purpose: A modified OSCE that was created for resident physicians in pediatrics is available from MedEdPORTAL and the goal of this project is to pilot the use of that resource to test Emory PNP students in order to better address their clinical reasoning skills.

#### **WHAT WAS TRIED?**

Methods: The OSCE was administered at the end of the third semester of the four semester PNP program. The written test

included 15 stations, 42-questions on clinical scenarios that include interpretation of x-rays and other visual images. The students rotated through stations where clinical scenarios were presented in written format with specific questions. Faculty used rubrics to grade the scenarios.

Preliminary Results: Overall, the students did really well on their OSCE. Compared to the Pediatric Interns, their scores were similar in that they ranged from (48-67) with a maximum allowable score of 75 and an average of 56. This compares to the 50-58 points for the 300 residents who were included in the publication. In the post-survey of students, most scored the test favorably.

#### **WHAT LESSONS WERE LEARNED?**

Conclusion: The use OSCEs is just another instrument that is available to educate the next generation of NPs. It allows for the evaluation of another dimension of clinical competence, using Miller's "shows how" instead of simply relying on the traditional measurements from the "knows how" or "knows" levels.



*Eva Rimler, MD  
Assistant Professor, Department of Medicine  
Emory University School of Medicine*

**WHAT PROBLEM WAS ADDRESSED?**

The Adult Primary Care (APC) clerkship piloted a board game to help teach chronic disease management in 2015. Students found the game enjoyable, and more than half of students felt it improved their ability to manage Hypertension (HTN) and Diabetes Mellitus (DM). Prior to playing the board game the course director taught a mini lecture about HTN and DM. The purpose of this project was to see if the board game is an adequate stand-alone teaching tool for concepts related to clinical management of HTN and DM.

**WHAT WAS TRIED?**

Alternating groups of APC students either received the mini lecture prior to playing the

board game, or played the game in the classroom without a lecture. For those groups that did not have a mini-lecture, the slide deck was provided for review prior to the classroom experience. All students had access to landmark articles about HTN and DM management, and had clinical time caring for patients with these conditions.

**WHAT LESSONS WERE LEARNED?**

After every classroom session, a survey assessed confidence in HTN and DM management skills, and the elements of the experience that helped or hindered learning. To assess objective medical knowledge, written exam questions about HTN and DM were compared. It appears that a mini lecture did not improve students' confidence in HTN and DM management. An interactive learning experience in this context was appropriate. The initial work of making the game was more intensive than creating a lecture, but the enjoyment and ease of providing this experience was worth the initial time investment.



Jason S. Schneider, MD, FACP  
Division of General Medicine & Geriatrics  
Department of Medicine  
Emory University School of Medicine

#### **WHAT PROBLEM WAS ADDRESSED?**

Effectively addressing the sexual health concerns of patients is critical to maintaining and improving overall health for both individuals and communities. Physicians are often limited in their ability to address such patient concerns because of inadequate training. Few methods exist to effectively evaluate the impact of human sexuality and sexual health curricula. This study aimed to validate the use of the Brief Sexual Attitudes Scale (BSAS) among medical students as a future means of measuring the impact of various instructional methods.

The BSAS is an instrument previously validated in studies of undergraduate college students and two cohorts of psychology students. Literature review demonstrated no previous validation studies among medical students.

#### **WHAT WAS TRIED?**

A near-peer facilitator used a “think aloud” technique to explore medical students’ understanding of selected items in the BSAS during a 60-minute session. The sessions were audio recorded to allow transcription and later analysis. Three sessions were conducted with a total of 23 participants, ranging in age from 23-27.

#### **WHAT LESSONS WERE LEARNED?**

After reviewing the transcripts, the investigative team through discussion and thematic analysis devised an initial codebook. Each team member coded each transcript independently. Across all transcripts, the three most frequently utilized codes were (1) ambiguity of terminology, (2) methodological concerns, and (3) impact of relative perspective.

Validity of survey instrument interpretations cannot be presumed across populations of interest. Validation is a multi-step process. The investigative team will conduct additional qualitative analyses based on this initial work, and propose modifications to the instrument. Additional participants will then be recruited to review and complete the modified version followed by one-on-one structured interviews to re-assess validity evidence. Optimally, this modified version can be used to assess the impact of human sexuality curricula both locally and at other institutions.



*David Schulman, MD, MPH  
Associate Professor, Department of Medicine  
Emory University School of Medicine*

#### **WHAT PROBLEM WAS ADDRESSED?**

Each July, almost thirty thousand medical professionals are appointed to first-year post-graduate positions through the National Residency Matching Program. The process of identifying applicants who warrant interviews, and who subsequently warrant recruitment, is problematic. This study was performed to help our own program improve the recruitment process, looking at historical data using a multivariate analysis to identify best predictors for post-graduate success.

#### **WHAT WAS TRIED?**

Data from seventy-eight fellows trained over eighteen years at our Pulmonary and Critical Care Medicine program were used to develop a predictive model to identify future high-performing trainees. With the exception of interview scores, all data were provided by

former fellows themselves as a required component of the fellowship application process. Potential predictors used for analysis included demographic characteristics, test scores, prior training, time off after residency, and interview assessment by Division faculty. Outcomes were determined by averaging the assessment of fifteen longstanding Division faculty who classified each of the former fellows into one of five different categories, based upon the perceived quality of their overall performance during their training, ranked from “outstanding” to “disaster”, each with specific descriptive anchors. Logistic regression was performed to identify factors that could predict trainee performance.

#### **WHAT LESSONS WERE LEARNED?**

Several factors were identified that demonstrated a statistically significant univariate association with trainee performance; these included Step 2 and Step 3 scores, performance of a chief resident year, faculty average interview score, and time off between residency and fellowship; this latter association was an inverse one. In the multivariate analysis, the only remaining statistically significant associations were for Step 2 score ( $p=0.03$ ) and years between residency and fellowship (negative association,  $p=0.02$ ).



*Gina Shannon, MAT  
Director of the Clinical Skills Center  
Emory University School of Medicine*

#### **WHAT PROBLEM WAS ADDRESSED?**

Health care providers require the skills of interpersonal communication, collaboration and adaptability to practice patient centered care. An improviser in improvisational theater also requires those skills to be a successful improviser and cast member. The core principles of Improvisation theater such as: Yes, And; Listening; and Giving the Gift can be applied to healthcare providers learning to build and develop these skills. In this project, the author explores the question- Can an Improvisation training improve medical learners' communication skills?

#### **WHAT WAS TRIED?**

Using self-assessment pre and post surveys; over a six-month period, the author conducted five 60-minute volunteer medical improvisation workshops focused on a theme or skill. Each session was structured with a review of the core principles of improvisation, two warm-up exercises, two games framed

around a theme or skill (i.e. listening, teamwork, giving the gift, non-verbal skills), then a debrief of the exercises and overall experience. In the debrief, a think aloud approach was used with questions of how the exercises could connect to patient care and working in healthcare teams. From there, the author plans to take a thematic analysis approach to find themes. Based on those themes, we will construct a pilot improvisation capstone for medical students in a three-hour workshop. Using the Kirkpatrick model, we will analyze and evaluate their reactions, learning, and changed behaviors to the improvisational workshops. After the capstone workshop, the hope is to offer a four-part 60-minute workshop to healthcare learners interested in improving their communication skills.

#### **WHAT LESSONS WERE LEARNED?**

Some medical improvisation exercises were more helpful than others, so running the volunteer workshops helped get a sense of which exercises worked best for a longer workshop. Since the sessions were volunteer based, attendance varied making it challenging to get a larger batch of survey results. The biggest challenge has been finding tools and methods that will best measure the improvement of the learners' communication skills. The author will continue to explore other tools and methods to expand beyond the workshops and into their practice.





*Boris Spektor, MD  
Assistant Professor  
Department of Anesthesiology  
Emory University School of Medicine*

### **WHAT LESSONS WERE LEARNED?**

33 of 78 trainees completed the study (42.3% response rate). Participants comprised interns (9.2%), CA1 (24.2%), CA2 (21.2%), CA3 (24.2%), and Fellows (21.2%) of whom 36.3% were female, 60.6% male, and 3.1% unspecified. 72.7% of participants felt that their training program provided adequate resources to address wellness. 48.5% of trainees felt comfortable using available wellness resources, 24.2% were neutral, and 27.3% felt uncomfortable. 51.6% of participants agreed that they were able to maintain work-life balance, and 91% agreed that they had a strong social support system. PSS-10 stress scores revealed an inverse trend with lowest stress scores in the most advanced trainees: Interns (16.3), CA1 (17.6), CA2 (17.1), CA3 (15.3), and Fellows (12.9). The most commonly utilized trainee stress management tools were: social connections (90.9%), hobbies (78.8%), rest/sleep (75.8%), and exercise (75.8%). Although 54.5% of participants requested creating dedicated weekly time in the workplace for wellness activities, no single stress reduction strategy was endorsed by a majority of participants.

### **WHAT PROBLEM WAS ADDRESSED?**

Anesthesiology trainees are exposed to a multitude of stressful situations. Suboptimally managed, these can result in adverse effects on well-being, professionalism, productivity, and patient care. Emory Anesthesiology trainees were surveyed regarding their perceived stress, current utilization of wellbeing techniques, and desired elements of a wellness curriculum.

### **WHAT WAS TRIED?**

This study was exempt from extended IRB review and approval. Emory anesthesiology interns, residents, and fellows were recruited via an emailed SurveyMonkey link. Multiple demographic variables were included, and each trainee's current perceived stress level was assessed using the Perceived Stress Scale (PSS-10).



*Anne Tomolo, MD, MPH  
Associate Professor, Department of Medicine  
Emory University School of Medicine*

#### **WHAT PROBLEM WAS ADDRESSED?**

Health professions training programs are required to incorporate quality and safety principles to meet core competency requirements (QSEN/ACGME), and interprofessional (IP) teamwork is fundamental to healthcare improvement. A QI and Safety bootcamp was designed for IP trainees to gain skills to apply to QI projects.

#### **WHAT WAS TRIED?**

An IP group of 22 learners participated in 26 hours of training over seven sessions covering quality and safety competencies. The curriculum included pre-work, theory bursts, and small group activities. A personal improvement project (PIP) provided trainees an opportunity to apply QI skills and receive feedback. Curriculum evaluation included formative feedback, summative program evaluation, PIP, and QI knowledge (SQI-TAT) pre and post course completion.

Results and Outcomes: Each session was evaluated using the “Two Minute Paper” technique. Topics needing additional clarification were reviewed. An end of course survey (Likert and open response items) was completed by 18 trainees, with the majority commenting on the value of the IP nature of the training. Trainees’ average response about usefulness of content to their work was 4.5 out of 5. The PIP presentations were useful for assessing application of learning and providing feedback. Trainees used the Cause-Effect Diagram and Process Map in problem analysis. Not all participants applied change concepts to guide interventions or implemented a test of change during the bootcamp.

#### **WHAT LESSONS WERE LEARNED?**

Training was an effective way to teach quality and safety concepts to an IP group of trainees. Participants applied QI and safety concepts in small group activities and PIPs. Participants requested additional formative feedback for their PIPs.



*Julie Williamson, DO*  
*Associate Professor of Anesthesiology*  
*Emory University School of Medicine*

#### **WHAT PROBLEM WAS ADDRESSED?**

Medical education is troubled by the prevalence of burnout among doctors: feelings of disengagement start even in the preclinical years of medical school. Anesthesiologists are particularly high risk. We hypothesize that having continuity in patient care during anesthesiology residency will increase job satisfaction, specifically by combating the depersonalization of our patients into “cases”.

#### **WHAT WAS TRIED?**

It is common for our residents to meet a patient only briefly before their surgical case (if at all) and not to see the patient again once he or she is stabilized in the post-anesthesia care unit. Our “Stand By Me” initiative changes the workflow of the preoperative clinic rotation to provide continuity of care for the resident and patient throughout the

perioperative experience. In this trial, the resident oversees the preoperative care of the selected patient, provides the intraoperative care and follows the patient daily until discharge from the hospital. We intended to assess the residents’ perspectives on the trial using the Professional Identity Essay (PIE).

#### **WHAT LESSONS WERE LEARNED?**

The PIE is a validated instrument for assessing professional identity formation that requires a willingness of the author to describe their inner thinking.

Residents are often not comfortable when the assessor is in a position of authority over them (e.g. their program director). This instrument proved to be challenging as the PI is the Program Director. Qualitative research is a valuable skill that requires as much investment in terms of study design and methodology. I am grateful for the opportunity to learn from the WHEA program.



# **Teaching Fellows**



Karima Benameur, MD  
Assistant Professor of Neurology  
Emory University School of Medicine

#### **WHAT PROBLEMS WILL BE ADDRESSED?**

The American Academy of Neurology (AAN) has endorsed the role of advanced practice providers (APPs) in the multidisciplinary care of neurologic patients, yet APP training in neurology is dismal. Until now APPs had to rely on books geared towards residents to learn neurology.

Objective: The learning outcomes were; 1) the development of an online asynchronous course geared towards APPs would bridge the current existing gap, 2) the use of 3D neuroanatomical model simulation would be more effective in teaching neuroanatomy than traditional 2D neuroanatomical teaching.

#### **WHAT WILL BE TRIED?**

Methods: This is an online asynchronous multi-module course using 3D anatomical models. The course includes 4 modules; motor pathways, sensory pathways, visual pathways, and higher cortical functions. Each course consists of a 30-40 min video, with the video

ending by going through a series of 4-5 clinical cases to consolidate and apply the concepts taught. Knowledge was assessed with a pre-and post-test for each module. APP students enrolled in the course had already completed their 4-week neurology module in the Physician-assistant program using traditional 2D neuroanatomy materials. Pre-tests represented knowledge acquired from the traditional 2D program. Post-tests represented knowledge acquired from our course. The course was evaluated by a Likert scale on; Clarity of concepts taught, quality of 3D models, convenience of the online course.

#### **WHAT LESSONS DO WE HOPE TO LEARN?**

Results: A total of 159 APPs enrolled in the course. The pre-test average score was 40%, the post-test score was 75%. The course was rated using the Likert scale as follows; Clarity of concepts taught 4.5/5; Quality of 3D models 5/5; Convenience of online course 5/5.

Discussion: This is the first neuroanatomy course geared towards neurology APPs. Using 3D neuroanatomical model simulation is more effective in teaching neuroanatomy and localization than traditional 2D teaching. Future directions include expanding the course to include more modules.



Sarah C. Blake, PhD, MA  
Director, MPH and MSPH Programs in Health Policy & Management, Rollins School of Public Health Emory University

**WHAT PROBLEMS WILL BE ADDRESSED?**

In Fall 2018, the Rollins School of Public Health (RSPH) joined the Inter-professional Team Training (ITT) offered by the Emory University Woodruff Health Science Center (including SOM, SON, Physician Assistant, Physical Therapy, Genetic Counseling, Anesthesiology). This training includes a didactic component and a discussion of health sciences-related case studies. Graduate students from all participating schools and programs attend the ITT. In the first year of participating, RSPH evaluations revealed that public health students were not connected to the content or format of the ITT mostly due to the lack of public health specific teaching.

**WHAT WILL BE TRIED?**

RSPH faculty are currently working to enhance the ITT to create a rich, interactive

experience for all health sciences students, including the adaptation of a self-paced didactic module, development of a set of clinical and population-based case studies, and creation of implementation guidelines. The proposed capstone project will design an evaluation of the newly developed ITT curriculum. I will apply Kerns' Six Step Approach to the RSPH ITT Curriculum Evaluation Plan, which will be developed in Spring 2020 and implemented in Fall 2020.

**WHAT LESSONS DO WE HOPE TO LEARN?**

The learning outcomes of the evaluation plan are to increase students' satisfaction and competency with the new ITT curriculum. The learning objectives are to inform future ITT curriculum and to meet public health school accreditation competencies. I will work closely to design the evaluation plan with RSPH Executive MPH program faculty who have received funding from Emory University's Interprofessional Education and Collaborative Practice (IPECP) Council to develop the new ITT curriculum.



Jennifer E. Brandt MD, MPH  
Assistant Professor of Medicine  
Division of Rheumatology  
Emory University School of Medicine

**WHAT PROBLEMS WILL BE ADDRESSED?**

Gaps in provision of formative feedback have been identified by both fellow trainees and faculty within the Emory Division of Rheumatology. Based on survey data (n = 12 of 20 faculty), 16% of faculty provide in-person feedback “never” or only once per year, while 42% of faculty give in-person feedback once every 6 months. Moreover, 2 out of 3 second-year fellows indicate that they receive in-person feedback from faculty only once every 2 to 3 months.

**WHAT WILL BE TRIED?**

Therefore, we have started structured, once monthly feedback sessions for the remainder

of the 2019-2020 academic year (n = 6 months) with identified faculty “feedback champions” who will serve as contacts for formative feedback at 3 selected clinical sites including both outpatient and inpatient settings. Fellows are asked to set up at least one monthly meetings with their site’s faculty “feedback champion.”

Fellows are asked to identify and document at least one short-term goal based on ACGME rheumatology core competencies along with selected resources to help achieve their goals. The “feedback champions” are asked to collect feedback from other faculty at the clinical site to provide to the fellows. “Feedback champions” will be educated on and encouraged to use “Ask-Discuss-Ask” approach to feedback.

**WHAT LESSONS DO WE HOPE TO LEARN?**

Through this project, we hope to increase the frequency of in-person feedback provided by faculty to fellows and to improve the quality of feedback provided. We hope to encourage fellows to identify a series of short-term goals that will allow for continued growth over the course of their fellowships.



*Abby Britt, CNM, MA  
Public Anthropology Instructor/Certified Nurse Midwife  
Department of Gynecology and Obstetrics  
Emory University School of Medicine*

#### **WHAT PROBLEMS WILL BE ADDRESSED?**

Breastfeeding education in undergraduate medical education is woefully inadequate, which leads to OBGYN residents and practicing OBGYNs often feeling ill prepared to support breastfeeding mothers. While a paucity of knowledge exists on breastfeeding education for medical students, what does exist suggests that students are not meeting basic core competencies as outlined by the Academy of Breastfeeding Medicine.

Breastfeeding is an important public health concern as it has the potential to save billions of dollars in healthcare costs, thus healthcare providers must know how to best promote successful breastfeeding.

#### **WHAT WILL BE TRIED?**

A review of the current undergraduate curriculum in OBYGN at the Emory SOM

showed only one lecture on the general maternal/infant/public health benefits of breastfeeding. No didactic content or clinical experiences related to the physiology of breastfeeding and clinical skills related to supporting breastfeeding mothers existed. This capstone project attempts to address this gap by implementing a triad of educational opportunities for students, including: an instructional classroom experience, simulation/role playing activities, and a clinical experience. As an assessment, students will complete a pre and post survey on knowledge of and attitudes towards breastfeeding, complete a LATCH scoring tool, and will complete both a personal written and in person group reflection on their experience. The program will begin with the new clinical year that begins in March of 2020.

#### **WHAT LESSONS DO WE HOPE TO LEARN?**

While the curriculum has not yet been implemented, we are expecting to learn lessons about the adequacy and efficacy of the curriculum and challenges students face in participating in breastfeeding in the clinical setting.



*Yelena Burklin, MD, FHM, FACP  
Assistant Professor of Medicine  
Division of Hospital Medicine  
Emory University School of Medicine*

**WHAT PROBLEMS WILL BE ADDRESSED?**

Learners/participants: peer hospitalists engaged in teaching rotations. Currently, the ability to utilize interactive didactic techniques is limited by the teacher’s awareness of the available teaching modalities.

**WHAT WILL BE TRIED?**

The facilitator of the workshop will introduce various interactive teaching modalities to the participants. In small groups, workshop participants will engage in the active hands-on learning exercise, creating a short didactic session together, followed by regrouping and simulated presentation to the larger audience during the workshop. During the presentation, interactive teaching modalities listed above will be applied. At the end of the workshop participants will gain experience of applying the interactive modalities in their didactic

teaching. They will analyze and evaluate which of the interactive modalities are the most applicable in a given teaching scenario and create a focused didactic teaching script to be presented to the learners.

In the first phase of the project, learning outcomes will be focused on creating innovative teaching modalities, enhancing and transforming their interactive teaching abilities.

The second phase of the project will include direct observation of the workshop participants in didactic rounds. Actionable summative feedback will be immediately provided to the participants utilizing the “ask-discuss-ask” model.

**WHAT LESSONS DO WE HOPE TO LEARN?**

1. Evaluate which interactive teaching modalities can be introduced in medical education.
2. Analyze the utility of available interactive techniques in the appropriate academic setting.
3. Create an innovative teaching approach that faculty can apply in their didactic teaching rounds.





*Devon A. Greene, MD, MPH  
Assistant Professor of Pediatrics  
Division of Pulmonology  
Emory University School of Medicine*

**WHAT PROBLEMS WILL BE ADDRESSED?**

A current limitation of the pediatric pulmonology fellowship curriculum is the journal club model, with an emphasis on lecture-based review of a journal article. This project seeks to remodel journal club to promote active participation among learners, understand different study designs, and develop frameworks for assessing literature in clinical practice.

**WHAT WILL BE TRIED?**

Prior to each journal club, a fellow will choose a study design and research an article answering a clinical question. With a faculty advisor, the fellow will then facilitate small group discussion about the article, which is shared at the start of the journal

club session to the larger learning group. Emphasis of the discussions will include strengths and weaknesses of a study's design, relevance of the article to clinical practice, and further questions proposed during discussion.

Following small group discussion, the larger group of fellows, residents, and faculty will summarize key points. Every other session, feedback will be obtained from trainees about the revised model and the ways in which they are incorporating discussion points into their learning. Similar feedback from faculty will be obtained annually.

**WHAT LESSONS DO WE HOPE TO LEARN?**

This project seeks to enhance learner engagement in the setting of journal club. By revising journal club sessions to facilitate guided small group discussion with an emphasis on clinical questions and research study design, the project will hopefully lead to incorporation of focused searches when addressing clinical and research questions. At the same time, regular feedback should develop journal club into sessions that engage trainees and faculty.



*Jamika Hallman-Cooper, MD  
Assistant Professor of Pediatrics  
Program Director, Pediatric Neurology Residency  
Emory University/Children's Healthcare of Atlanta*

**WHAT PROBLEMS WILL BE ADDRESSED?**

For the 2019-2020 academic year, the board review curriculum format shifted from faculty-led sessions to residents leading them in effort to promote self-directed learning and information retention. Residents individually decided their topic and presentation format. The majority used a question/answer format. Questions covered were obtained from various board prep materials. Qualitative feedback from the residents on the curriculum revealed the following: 1) their knowledge of the topic they presented had improved, but they had not retained information presented by their peers, 2) sessions going over board-style questions were most preferred, and 3) they

had not developed a self-directed study plan for board review.

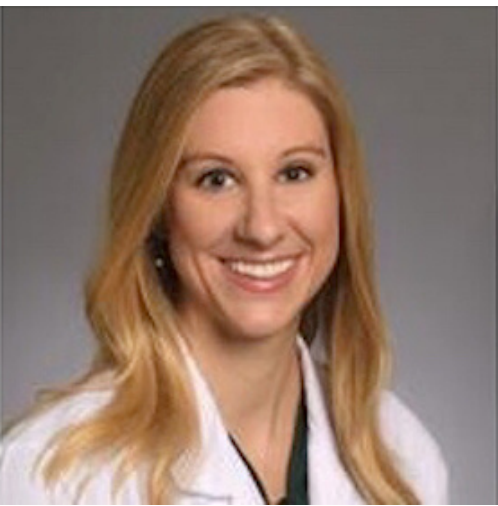
**WHAT WILL BE TRIED?**

Board review curriculum will be re-designed based on Knowles self-directed learning theory and using Kern's Six Steps approach. To promote creation of active learning sessions, residents will get a crash course on adult learning theory, developing learning outcomes, and techniques for teaching. Residents will be assigned topics to cover based on data from the Residency In-Service Training Exam (RITE). A faculty member will facilitate each session. Board-style questions used in teaching sessions will come from a common source. Each session will be evaluated with a brief, anonymous survey. RITE exam scores from this year will be compared to next year's scores.

**WHAT LESSONS DO WE HOPE TO LEARN?**

Does this approach prompt residents to identify knowledge gaps and create a self-study plan? Are residents able to implement teaching strategies to promote retention of information? Do residents feel better prepared to take the board certification exam at the end of training?





*Kelly Kaysen, MD  
Assistant Professor of Medicine  
Division of Rheumatology  
Emory University School of Medicine*

**WHAT PROBLEMS WILL BE ADDRESSED?**

The outpatient rheumatology rotation at The Emory Clinic currently does not have a structured curriculum for rotating internal medicine residents or rheumatology fellows. Most residents and fellows are unaware of their learning needs and goals, and they do not receive guidance on how to focus their learning. In order to more effectively teach high-yield rheumatology topics to residents and fellows, rotators will formulate goal-directed personal learning plans that will be executed by the use of whiteboard visual displays.

**WHAT WILL BE TRIED?**

Prior to the start of their rheumatology rotation, residents and fellows will choose three learning goals from the list of the American Board of Internal Medicine high-

yield rheumatology topics. They will create a personal learning plan by selecting at least two different educational resources to help achieve their learning goals. At the beginning of each rotation, whiteboards will be displayed in the rheumatology common area of The Emory Clinic and will list the learning goals for each rotator.

Once the rotator is exposed to a patient case pertaining to their learning goal and discusses the topic with a faculty member, they will mark their learning goal as completed on the whiteboard. The whiteboards thus will maintain accountability and create awareness of rotator learning goals amongst faculty members.

**WHAT LESSONS DO WE HOPE TO LEARN?**

We hope that the project will facilitate a better learning experience for both residents and fellows as well as increase their knowledge base of high-yield rheumatology topics. The project also will improve faculty engagement in teaching through the use of the whiteboards.



*Delores Lloyd, RN  
Advanced Nurse Clinician  
Winship Cancer Institute of Emory University*

**WHAT PROBLEMS WILL BE ADDRESSED?**

Background: Due to the advances in the molecular biology and pharmaceutical fields, an increased number of oral chemotherapy agents are now available for multiple myeloma patients. Systemic anti-cancer treatments taken orally offer a new treatment paradigm, which has resulted in patients receiving outpatient ambulatory treatment, reducing hospital costs, promoting autonomy and improving patient’s quality of life and survival (De Mario& Ratain 1998; O’Neil & Twelves 2002; Simonchowitz et al. 2010; Regnier Denois et al. 2011). For these reasons, patients typically prefer to take oral chemotherapy agents instead of intravenous therapy as long as the effectiveness is not compromised.

Problem to be addressed: This study will examine the patterns of adherence to oral chemotherapy regimens in the elderly multiple myeloma patient. This study will not only assess noncompliance but also underadherence (taking less medication than prescribed) and overadherence (taking more medication than prescribed).

**WHAT WILL BE TRIED?**

Typically in the ambulatory outpatient myeloma clinic setting, patient education regarding oral chemotherapy agents occurs in a single visit and is performed by either the clinical pharmacist or the registered nurse. The patient is given both verbal and written information. The patient typically verbalizes understanding of materials received and problems are not usually identified until subsequent clinic visits. During this study, different educational methods (email links, graphics, podcasts, etc) will be implemented and assessed for impact.

**WHAT LESSONS DO WE HOPE TO LEARN?**

Hopefully, the results of this project will guide patient educators in the implementation of effective tools that will best benefit the patient in terms of retention and absorption of oral chemotherapy regimen information.



Munish Luthra, MD, FCCP  
Assistant Professor of Medicine  
Division of Pulmonary, Allergy, Critical Care and  
Sleep Medicine  
Emory University School of Medicine

**WHAT WILL BE TRIED?**

I intend to develop a simple but comprehensive assessment tool (checklist) a.k.a. Bronchoscopy Assessment Tool (BAT) which would serve to evaluate trainees on different components of the bronchoscopy skills. I plan to categorize this tool into three components to evaluate the skills prior to the procedure, during the actual procedure and post procedure care. I will use the education material as above to deliver the required content to test each component of assessment tool. I plan to use this tool to evaluate the bronchoscopy skills of our fellows post training and assess if they are at appropriate level of proficiency in the different component of the procedural skill.

**WHAT PROBLEMS WILL BE ADDRESSED?**

I serve as Lead Faculty for Bronchoscopy education for Emory Pulmonary & Critical Care Medicine fellows since 2016. This serves as a foundation to provide a broad overview of the role of bronchoscopy but stresses more on technique skills. I utilize a brief lecture (15 minutes), handouts, posters, video podcast followed by hands-on-training on a simulator as part of the Bronchoscopy education curriculum. I do not have an appropriate assessment tool (checklist) to evaluate and provide specific feedback to trainees on different components of bronchoscopy skills taught during this training.

**WHAT LESSONS DO WE HOPE TO LEARN?**

BAT will serve as a means to providing goal-oriented, transparent, and actionable feedback to PCCM fellows and I plan to share this with fellowship program leadership as this tool can also serve as a competency evaluation form which is a requirement by ACGME for specific pulmonary procedures by fellows in an ACGME accredited training program. I hope the feedback received from the trainees would help us to modify our procedural training both at the simulator and in real life setting.



*Erica D. Marshall Lee, PhD  
Assistant Professor of Psychiatry and Behavioral  
Sciences  
Grady Health System  
Emory University School of Medicine*

**WHAT PROBLEMS WILL BE ADDRESSED?**

Health care service provision in the public sector today necessitates the presence of clinicians sensitive to the unique issues facing individuals with mental health concerns. There has been movement toward applying psychological expertise in removing barriers to accessing optimal mental and physical healthcare in addition to promoting social inclusion, self -agency, and empowerment (Marshall – Lee, et. al., 2019). Social justice advocacy is defined as the actions taken to facilitate the removal of external barriers to opportunity and well-being (Toporek & Liu, 2001). Many mental healthcare providers are educated and trained to be competent, professional, ethical, and culturally sensitive clinicians

focused primarily on understanding human experience. Historically, less attention has been given to activism, advocacy, and social justice as part of that training (Marshall – Lee, et. al., 2019).

**WHAT WILL BE TRIED?**

The current curriculum will address this issue by utilizing didactics (on site and Zoom), article and book review (dropbox, physical book), group project (dropbox, social media, google scholar), surveys (survey monkey), group discussion (Canvas), questionnaire and quiz (poll everywhere), and pre/ post participation and program evaluations (survey monkey).

**WHAT LESSONS DO WE HOPE TO LEARN?**

Learners will learn to reduce the negative effects of social determinants on mental/physical health by improving consumer individual and social conditions at local, regional, and national levels. Learners will be equipped with clinical knowledge and skills using a social justice and advocacy lens to develop community and governmental partnerships. They will reflect on their personal sense of social responsibility and impact. Lastly, they will contribute their scientific findings to current social justice and advocacy literature.



Vahid Serpooshan, PhD

Asst. Professor, Biomedical Engineering & Pediatrics  
Emory University & Georgia Institute of Technology

#### WHAT PROBLEMS WILL BE ADDRESSED?

As a recently hired tenure-track faculty in the Departments of Biomedical Engineering and Pediatrics at Emory University and Georgia Institute of Technology, one of my major teaching goals for the next year is to develop and establish a new course on '3D Bioprinting'. Over the past decade, there has been a rapidly growing interest in the development and utilization of bio-manufacturing technologies, and in particular, 3D bioprinting systems, for tissue and organ fabrication, offering great promise for resolving the current crisis of organ shortage. There is currently no training program, specifically dedicated to 3D bioprinting at Emory or Georgia Tech.

#### WHAT WILL BE TRIED?

Through employing the skills and knowledge gained during the WHEA Teaching Fellowship, I aim to design a comprehensive and efficient course on 3D bioprinting, with

both in-class and hands-on workshop sessions. I envision the course to be accessible to undergrad and grad students from a number of basic science/engineering disciplines, as well as MD students with interest in advanced bioengineering technologies. I am planning to use: the 7 principles for learning and teaching, methods to enhance learners' engagement and reflection, and learning assessment techniques. Considering that the learners (audience) for this course will have a significantly diverse background knowledge and training record, careful design and implementation of these teaching concepts will be critical. I also hope to better familiarize myself with effective feedbacking techniques, as well as advanced, online platforms to facilitate teaching and assessment.

#### WHAT LESSONS DO WE HOPE TO LEARN?

In summary, I envision that the skills and lessons learned through this program will provide me with a robust toolset to help create a multi-component academic course on the 3D bioprinting and its use in biomedical research and clinical applications. This could transform the Biomedical Engineering Department at Emory-Georgia Tech into one of the leading academic training centers in advanced tissue and organ biomanufacturing.



*Sarah Varghese, MD*  
*Assistant Professor of Pediatrics*  
*Pediatric Hospitalist (CHOA Egleston)*  
*Emory University School of Medicine*

feedback, and principles of mentorship, with a focus on how each of these impact practice for the academic pediatric hospitalist.

**WHAT LESSONS DO WE HOPE TO LEARN?**

Individual learner feedback and programmatic evaluations will be used to improve content and provide a comprehensive yet practical course. Serving as an exercise in curriculum development, this capstone project provides a valuable learning experience and stepping stone for designing future curricular additions.

**WHAT PROBLEMS WILL BE ADDRESSED?**

My capstone project aims to develop a new curriculum on principles of teaching for pediatric hospital medicine fellows. The curriculum seeks to fill a gap in the formal educational program of fellowship training for the newest subspecialty within pediatrics

**WHAT WILL BE TRIED?**

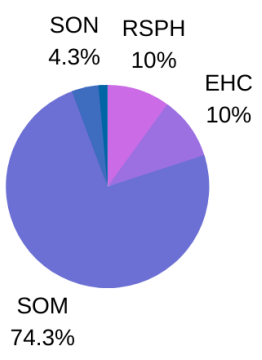
Utilizing Kern's six step approach to curriculum development, it will target key domains outlined within the American Board of Pediatrics content outline for the subspecialty certification exam while covering topics essential to everyday practice for the clinician educator. Content covered includes teaching strategies, principles of adult learning theory, principles of effective assessment and



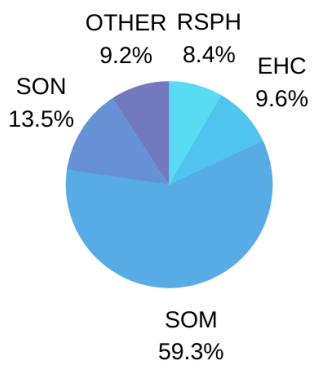
# WHEA BY THE NUMBERS



**WHEA FELLOWS**



**WHEA ENGAGEMENT**





# WHEA Activities

FOSTERING AN INTERPROFESSIONAL  
COMMUNITY OF EDUCATORS ACROSS THE  
HEALTH SCIENCES AT EMORY



## 1. FELLOWSHIP IN EDUCATIONAL SCHOLARSHIP



An 18-month program for health science educators who want to develop skills in educational research and scholarship.

## 2. TEACHING FELLOWSHIP

A 12-month program for health sciences educators who want to advance their teaching skills and offer quality instruction to their learners.



## 3. IPE JOURNAL CLUB

A monthly opportunity for educators across the health sciences to meet and expand their knowledge of Interprofessional Education (IPE) theory and practice.

## 4. EDUCATORS SALON

A triannual opportunity for learning and community building across professions



## 5. WHEA PATHWAYS PLATFORM (IN PROGRESS)

A learning management system to guide and support health sciences educators around key aspects of the learning process.

## 6. FUNDAMENTALS OF EDUCATIONAL SCHOLARSHIP (IN PLANNING)

A half-day workshop, available to all WHSC sites, to provide the background and tools for health science educators to develop and implement scholarly projects.

