11TH ANNUAL
TEACHING AND LEARNING
SYMPOSIUM

Friday, April 16, 2021 | 8 a.m. - 12:30 p.m.

Zoom Meeting Link
Meeting ID: 932 2622 5646
Passcode: 5456843

SCHEDULE

8:00-8:10	Welcome/Opening Remarks
8:10-9:10	Keynote Address
9:20-10:20	Breakout Session I
10:30-11:30	Breakout Session II
11:40-12:00	Poster Session
12:10-12:30	Award Ceremony: Recognizing our 2021 Outstanding Educators (Students & Faculty)
12:30	Symposium Adjourns

THE FUTURE OF MEDICAL EDUCATION:
IMAGINE IF THE IMPOSSIBLE ISN'T

RONALD HARDEN is Professor of Medical Education (Emeritus) University of Dundee, General Secretary and Treasurer of the Association for Medical Education in Europe (AMEE) and Editor of the renowned journal 'Medical Teacher'. As one of the most celebrated professors of medical education, he served as Teaching Dean and Director of the Centre for Medical Education at the University of Dundee, and Director of the Educational Development Unit of the Scottish Council for Postgraduate Medical and Dental Education. He brings to medical education a unique blend of theory and practical experience. He has written extensively in his areas of interest and has published more than 400 papers in leading journals. He is co–editor of the best-selling book – "A Practical Guide for Medical Teachers".

REGISTRATION

Pre-registration is required. Register online at siumed.edu/cpd (In the dropdown under 'Learners', select 'Conferences'). For registration questions, contact the Office of CPD at 217-545-7711.

SUPPORTED BY

SIU School of Medicine Departments of Family & Community Medicine, Internal Medicine, Medical Education, Medical Humanities, Pediatrics, Population Science & Policy, and Surgery

Provided by SIU School of Medicine, Academy for Scholarship in Education & Center for Human Organizational Potential

CENTER FOR HUMAN AND ORGANIZATIONAL POTENTIAL

SIU MEDICINE

11th Annual Teaching and Learning Symposium: The Changing Role of the Medical Educator
April 16, 2021, 8:00 am-12:30 pm

Zoom Meeting Link (Zoom Meeting ID: 932 2622 5646, PW: 5456843)

Registration is Required! _(Link)_
Call for Session Hosts and Evaluators _(Link)_

8:00-8:10	**Kickoff Event: Welcome to the Annual Symposium** by Debra Klamen, MD, MHPE, Senior Associate Dean for Education and Curriculum
8:10-9:10	**Keynote Address: "The Future of Medical Education: Imagine if the Impossible isn't"** by Ronald M Harden, OBE MD, FRCP (GLAS.), FRCS (ED.) FRCPC, Professor of Medical Education (Emeritus) University of Dundee, General Secretary and Treasurer of the Association for Medical Education in Europe (AMEE)

	Breakout Room 1	_Breakout Room 2_	_Breakout Room 3_	_Breakout Room 4_
9:20-10:20	_[Research Presentations 1]_ **Improving the Utilization of Goals During 3rd Year Clerkships** (T. Fulk, A. Cianciolo, B. Ryan, R. Roy) **Parathyroidectomy Using Computer Enhanced Visual Learning** (B. Chen, B. Stack) **The Association Between Engagement in an Online Clinical Reasoning Training System and Performance on a Subsequent Clinical Competency Exam** (A. Cianciolo, S. Matos, J. Davila, C. Ashburn, H. Han)	_[Small Group Discussions 1]_ **Adaptation of M2 Undergraduate Medical Curriculum to Virtual Learning Environments (VLE) due to COVID-19 Pandemic** (A. Braundmeier-Fleming, T. Bader, E. Wieland, H. Han, S. Tischkau) **Key Factors for the Success of Multifaceted, Inclusive, Relational, and Longitudinal Faculty and Staff Development** (S. Suh, J. Mellinger, S. Sattovia, B. Suh, S. Hingle)	_[Ignite Presentations]_ **EBQ FTW: Engaging Faculty, Residents, and Students in Evidence-Based Medicine through Text-Delivered Weekly Quizzes** (G. Luckey, T. Sutton) **Innovative Curriculum: Increasing Student and Faculty Awareness of Health System Science in Clinical Practice** (M. Volle, T. Johnson, N. Dougherty) **It's Game Time** (M. Aiello, K. Reynolds) **STEM Classes and Explaining Complicated Topics in Simplified Language** (S. Goel)	_[Student Hotspotting: Breakout Rooms 4-6]_ **Going the Distance Together…Community-Based, Interprofessional Education with Medically and Socially Complex Patient Populations** (J. Frueh, H. Cherry)

10:30-11:30	*[Research Presentations 2]* Faculty's Perception of Culture Conducive to Faculty Career Success in Academic Medicine (H. Han, V. Prakash, R. Korte, S. Hingle) Ambiguity Tolerance in Students in a Premedical Postbaccalaureate Program (A. Metz) Improving Medical Student's Virtual Rounding Experience: A Qualitative Analysis. (A. Rafaquat, T. McGowan, M. Were, Y. Fedorovich, H. Han) Impact of the Shift to Online Instruction on Underrepresented Students in Postbaccalaureate Premedical Program (A. Metz)	*[Small Group Discussions 2]* Insights on Interprofessional Education to Build Competencies and a Collaborative Workforce for Family Medicine (B. Miller) Breaking Down Silos in Coaching, Mentorship, and Advising at SIU School of Medicine (A. Wilber, K. Chauhan, J. Mellinger)	*[Small Group Discussions 3]* Analyzing Medical Education Scholarship to Promote Culturally Sensitive Universal Design for Learning (A. Cianciolo, T. Kelley, B. Madden, E. Maduakolam, E. Odukoya, F. Olawuni) Mitigating Bias in the Medical School Curriculum (W. El-Amin, C. Smyre, K. Hurst, T. Kelley, K. Coleman)	*[Professional Development Workshops]* Rethink Productivity Through Time, Task, and Stress Management (S. Suh)
11:40-12:00	*[Poster Presentations 1]* An Interprofessional Education Program to Promote Nurse-Resident Relations (A. Joseph, M. Abdelnour, H. Idrizi) Improving Diversity Among the Residents in SIU Pediatrics (M. Were, A. Anudu) Inpatient Consults: Introducing an Institution-Specific Consult Tool to Increase Efficiency and Confidence Amongst Pediatric Residents and Medical Students (E. Mosleh, N. Patel)	*[Poster Presentations 2]* Assessment and Improvement of Consult-Liaison Psychiatry Orientation Curriculum (M. Bryant, L. Shea, J. Hill-Jordan) Physician Pipeline: An Educational Journey (M. Mannion, N. Revelt, Z. Paquin, E. Lister, H. Plattner, A. Worix, B. Tabiti, E. Emuze, C. Hitt) Program Coordinator Professional Development: It is Worth the Effort! (N. Workman, S. Sattovia)	*[Poster Presentations 3]* Assessing Physician Attitudes and Knowledge about Intimate Partner Violence: Utilizing Assessment Tools to Guide Future Directions (M. Ahmed, N. Cudjoe, S. Sharma, S. Rebeiro, J. Hill-Jordan) Assessing Pre-Clinical and USMLE Step 1 Performance in Medical Students who Utilize Spaced Repetition Learning (M. Turner, D. Klamen) Identifying Gaps in Third- and Fourth-Year Medical Student Rotations in Emergency Medicine Due to COVID-19 (S. Kim, R. Austin, R. Tennill, A. Fleming, M. Turner)	*[Poster Presentations 4]* COVID-19 Adaptations to Remote Teaching of Medical Gross Anatomy and Neuroanatomy: instructional Material Adjustments and Learning Outcomes (M. Thurber, R. Clough, D. Sarko) What is the impact of COVID-19 on Nutrition for Obese Patients in the FCM Weight Loss Clinic? (M. Ajmeri, P. Sheth-Dutt, G. Luckey)
12:10-12:30	Award Ceremony: Recognizing our 2020-2021 Outstanding Educators (Medical Students & Faculty) by J. Kevin Dorsey, MD, PhD; Dean Emeritus			
12:30	Symposium Adjourns			

11th Annual Teaching and Learning Symposium:
The Changing Role of the Medical Teacher

Hosted by Academy for Scholarship in Education and

Center for Human and Organizational Potential

Symposium Planning Subcommittee

Co-Chairs:

Boyung Suh, PhD, and Stacy Sattovia, MD, MBA

Sub-Committee Members (Alphabetical Order):

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Cris Anderson, MD
Anna Cianciolo, PhD
Heeyoung Han, PhD
Susan Hingle, MD
Debra Klamen, MD, MPHE
Christopher Reavis, MS
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KICKOFF EVENT   8:00-8:10

WELCOME by Dr. Debra Klamen

Keynote: Ronald Harden, OBE MD, FRCP (GLAS.), FRCS (ED.) FRCPC   8:10-9:10

The Future of Medical Education Image if the Impossible isn't

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SESSION I   9:20-10:30

Research Presentations 1

(Breakout Room 1)

"Improving the Utilization of Goals During 3rd Year Clerkships" (T. Fulk, A. Cianciolo, B Ryan, R. Roy)

Abstract: The Problem The importance of medical students setting goals during third-year clerkships is relatively undisputed, we must evaluate the most effective way for students to set and achieve these goals. While there is much worth in setting goals, doing so prior to understanding the expectations of the clerkship may lead to students setting arbitrary goals that are not conducive to an effective learning experience. To assess goal-setting attitudes, a survey was conducted that included questions in the categories of "Creating Goals", "Using Goals", and "Y3 Goals Overall". The survey response rate was 43% among M3/4 students. 74% of respondents did not feel prepared to formulate goals, and 85% of respondents reported not revisiting goals after making them. Previous studies suggest that if we choose to improve upon medical education, we must assist medical students to make specific, targeted goals to positively impact on learning outcomes. Despite their frequent use in medical education, the evidence base supporting goal-setting interventions is limited. Innovation Ideas To address the limitations of the goal-setting process we propose a peer-to-peer student guide that will make the following improvements to the current structure. Using group discussion and interviews, the guide was written to give perspectives of fourth-year medical students on the daily expectations (arrival times, shift length, patient load, etc.) of each specific clerkship and how to make the most of their clerkship experience by seeking out clinical experiences, asking for feedback, practicing specific clinical skills, etc. The guide is organized by clerkship specialty and subdivided into the topics mentioned above and includes a general overview of helpful methods to develop clinical knowledge/skills and professionalism that applies to all clerkships. Because the guide is based on real-world experiences of medical students, we expect students that use the guide to have more accurate expectations that will help them formulate specific, timely, and attainable goals. Potential Impact The impact of intervening in the current goal-setting model during the Year 3 clerkships would mean more targeted goal-setting and feedback. We anticipate that students who utilize the guide will have more accurate expectations of their clerkship responsibilities and will have greater confidence in overall performance and setting, achieving, and receiving feedback on their goals. To assess the effectiveness of the guide in these areas, we are releasing a survey to the 3rd year students during the last week of each clerkship, inquiring about their confidence in preparedness and goal-setting, achievement, and feedback for that clerkship. This portion may be answered by students who did or did not use the guide. A second portion of the survey is available for those who used guide and examines perceived usefulness of the guide in the areas mentioned prior. We are also utilizing a series of small focus groups to allow 3rd year students to discuss questions regarding goal-setting and effectiveness of the guide. Preliminary results have revealed the guide to be somewhat to moderately effective in boosting 3rd year student confidence levels in being prepared for and setting goals for each clerkship.

"Parathyroidectomy using Computer Enhanced Visual Learning" (B. Chen, B. Stack)

Abstract: This study aims to compare residents' self-perception of operative competency in parathyroidectomy to evaluation by attending surgeons using Computer Enhanced Visual Learning.. Historically, surgical competency is measured by faculty feedback, patient outcomes, and volume of completed surgical cases1. However, discrepancy exists between perception of competency between residents and attending surgeons. The Accreditation Council for Graduate Medical Education (ACGME) has encouraged more objective methods to evaluate surgical competency. Computer Enhanced Visual Learning (CEVL) is an online tool that combines learning modalities such as videos, animations, didactic presentations to teach and evaluate surgical competency. Using CEVL, the resident can review preoperative study materials, perform the procedure with supervision, and use postoperative study remediation strategies. This method was first used to teach pediatric urologic procedures with success in improving surgical skills and confidence of residents2. It has since been adapted in hemithyroidectomy among otolaryngology residents3. We believe CEVL can also be used in parathyroidectomy, a key indicator case required for successful completion of otolaryngology residency. Seven unique residents (Post Graduate Year or PGY2-5) in the Otolaryngology-Head and Neck Surgery residency program at the Southern Illinois University School of Medicine will complete a preoperative parathyroidectomy module using the CEVL program. Before and after every parathyroidectomy procedure, each resident will complete a previously validated procedure-specific survey measurement tool to assess performance. Similarly, the attending surgeon involved in the parathyroidectomy will complete an identical matched measurement tool to assess his or her impression of the resident's performance before and after surgery. Both the resident and attending surgeon will be blinded to the responses of the other. A Likert scale will be used to rate various key surgical skills and steps involved in parathyroidectomy. We hypothesize there will be significant agreement between resident and attending surgeon assessment of surgical skills in parathyroidectomy. Previous CEVL studies in hemithyroidectomy demonstrated almost perfect agreement between resident and attending assessment, indicating residents' high awareness of surgical performance3. As the key steps in parathyroidectomy are comparable to those involved in hemithyroidectomy, we expect similar results. Current methods of evaluating surgical competency contain subjectivity, poor reliability and low validity. Our study employs a procedure-specific surgical performance assessment tool to compare residents' self-perception of competency to that of the attending surgeon for parathyroidectomy. Early and accurate identification of deficiencies in surgical skills can lead to early remediation efforts. The data we obtain will offer invaluable information to help direct future residency training guidelines and provide an objective assessment of surgical competency. 1. Brown DJ, Thompson RE, Bhatti NI. Assessment of operative competency in otolaryngology residency: survey of US program directors. Laryngoscope. 2008;118(10):1761-1764. 2. Maizels M, Mickelson J, Yerkes E et al. Computer-Enhanced Visual Learning Method: A paradigm to Teach and Document Surgical Skills. J Grad Med Educ. 2009 Sep; 1(1): 109-113. DOI: 10.4300/01.01.0018. 3. Kim AH, Vaughn CA, King DL, Maizels M, Meade P, Stack BC Jr. Assessment of operative competency for thyroidectomy: Comparison of resident self-assessment vs attending surgeon assessment. Head Neck. 2020 Dec;42(12):3551-3557. DOI: 10.1002/hed.26420. Epub 2020 Aug 19. PMID: 32812689.

"The Association between Engagement in an Online Clinical Reasoning Training System and Performance on a Subsequent Clinical Competency Exam" (S. Matos, A Cianciolo, J. Davila, C. Ashburn, H. Han, A. Rafaquat & C. Schwind)

Abstract: Research Question: Is engagement in an online clinical reasoning training system associated with scores on subsequent clinical performance exams? Background: In 2017, our medical school launched an online training system designed to offer deliberate practice on reasoning clinically through 12 chief complaints. Completion of the training is required, but there is otherwise no monitoring of student activity, making it a good marker of self-directed learning in a Year 3 curriculum that does not require shelf exams. This study examined whether student engagement in online clinical learning improved the likelihood of advanced performance on subsequent clinical examinations in Year 3. Study Design: This study used an extreme-groups design to examine the association between student engagement in the training system and high-pass versus fail status on a subsequent summative clinical competency exam. Using a locally developed rubric, training system data were rated for degree of conscientiousness (e.g., timing of case completion, completion of optional self-assessments) and cognitive investment (i.e., rigor of engagement in required reasoning exercises). Raters were two medical education faculty, two nurse educators, and one clinical faculty member, all blind to the students' identities and SCCX pass/fail status. The association between engagement and subsequent exam status was evaluated taking prior clinical competency exam scores into account. Findings: Two students did not complete any of the required cases, and

both failed the SCCX. Of two students who did not complete all of the required cases, one failed the SCCX and one passed all 14 cases. Results indicate an association between student engagement in the training system and SCCX pass/fail status: On average, high-pass students (N = 31) achieved a 72% engagement score, and failing students (N = 33) received a 57%, a significant difference (U = 304, p = .005). Adding engagement into a logistic regression stepwise after prior clinical competency exam scores significantly improved model fit, but did not practically improve the prediction of exam status [Ex(B) = 1.034]. Conclusions: Engagement appears to influence the value of this self-directed online training system to developing clinical performance. Our students may seize myriad opportunities to improve clinical reasoning, with engagement in our online training system benefiting some more than others. References: 1. Han, H., Cianciolo, A. T., Klamen, D. L., LaVoie, N. Critical Clinical Competencies (CCC): An Online Video-based Curriculum to Develop Clinical Reasoning Skills. Association of American Medical Colleges (AAMC) Group on Information Resources (GIR) 2016 Information Technology in Academic Medicine Conference, Toronto, Canada, June 2016. 2. Fetter, M., Robbs, R., & Cianciolo, A. T. (2019). Clerkship curriculum design and USMLE Step 2 performance: Exploring the impact of self-regulated exam preparation. Medical Science Educator, 29(1), 265-276. 3. Foshee, C. M., Nowacki, A. S., Shivak, J. T., & Bierer, S. B. (2018). Making much of the mundane: a retrospective examination of undergraduate medical students' completion of routine tasks and USMLE step 1 performance. Medical Science Educator, 28, 351-357. 4. Fors, U., Saqr, M., TedreM., How learning analytics can early predict under-achieving students in a blended medical education course. Med Teach. 39(7):757-767.

Small Group Discussions 1

(Breakout Room 2)

"Adaptation of M2 undergraduate medical curriculum to virtual learning environments (VLE) due to COVID-19 pandemic" (A. Braudmeier, T. Badger, E. Wieland, H. Han, and S. Tischkau)

Abstract: Background: On March 16th, 2020, the Illinois Board of Education prohibited academic institutions (primary, secondary and higher education) to hold in-person instruction to control the spread of the COVID-19 virus. These unprecedented events required the immediate formulation of strategies to deliver medical education to students without compromising curricular quality or integrity. A unique challenge for VLE at SIUSOM is the heavy reliance on problem based learning (PBL) methods to enhance the discussion of key learning issues and acquisition of essential knowledge within each unit. Small group discussions among faculty tutors and students are critical for the success of PBL in medical education, therefore it was important that VLE incorporate alternative methods for PBL. In addition, didactic components (resource sessions) of the curriculum also required adaptations to virtual platforms. Goal: To maintain delivery of high quality medical education with adaptation of required mandates for social distancing and public safety and foster discussion between the panel and audience for curricular strategies post-pandemic. Supporting Evidence/Baseline: Integration of virtual computer software programs and development of hardware that allow for visual and audio sharing, facilitate virtual learning environments for higher education. Recently, VLE has only been used in didactic lecture style curriculums with little use in active learning classrooms. However, a previous investigation reported student perceptions on the effectiveness of virtual learning environments (VLE) in PBL curriculums 1. This study reported that students benefited from VLE during the "active" learning component of learning (tutor groups) but not in the "self-directed" component of learning. Since the onset of the pandemic in March 2020, there has been more observational literature reported on the effectiveness of VLE in medical education 2. Intervention: We have organized our institutional approach for: 1) delivery of virtual PBL, 2) recording and deposition of curricular resource sessions, 3) strategies for virtual assessment of unit learning issues and 4) organization and delivery of doctoring activities in a virtual environment. Results: The effectiveness of remote PBL was highly dependent upon the tutor for each group. Tutors more familiar with PBL and technology conducted small group learning that encouraged student participation and discussion. Numerous students found the recorded resource sessions beneficial, and preferred this method over live lectures. Many faculty preferred live lectures and did not adapt well to using technology platforms to record their sessions. A major drawback, as viewed by students, was using virtual technology for the end of unit assessment. Primary complaints about conducting virtual assessments were exam security and concerns of hardware/internet failure.

Additionally, students did not like using virtual technology to conduct patient encounters or other doctoring activities, although they did report a benefit to learning about telemedicine. Sustainability/Spread: While not ideal, our implementation of a virtual learning environment was successful for student learning and demonstrated the flexibility in our PBL curriculum. This experience gave our institution the opportunity to develop innovative teaching strategies that can enhance "in-person" instruction, which will improve the overall curriculum and prepare the institution for future "world events" that may shift the delivery of medical education.

"Key Factors for the Success of Multifaceted, Inclusive, Relational, and Longitudinal Faculty and Staff Development" (S. Suh, J. Mellinger, S. Sattovia, B. Suh and S. Hingle)

Abstract: Background The need for a coordinated and intentional approach to professional and leadership development at Academic Medical Centers (AMC's) has been apparent in an era of accelerating change. Southern Illinois University School of Medicine launched the Center for Human and Organizational Potential (cHOP) in 2018 to create inclusive partnerships that unleash the potential inherent in its people and communities to learn, thrive, and excel. cHOP performed gap assessments on institutional culture and learning and subsequently designed and implemented inclusive, relational, multifaceted, and longitudinal faculty and staff development programs, incorporating the AMC's mission and goals. These included the Accelerate leadership development program for emerging to mid-career constituents, the Early Career Faculty Development program for new faculty and a series of leadership book clubs involving multiple stakeholder groups. Goal(s) These programs aimed to promote participants' professional identity development and socialization into academic medicine. In this small group session, the presenters will share the planning, design, and development process of faculty and staff development as well as lessons learned along the way. The participants will have opportunities to share their lessons and ideas to enhance the engagement and delivery of these programs in the future. Supporting Evidence/Baseline Data Critical factors for effective development identified in this experience include 1) intentionality in program design, 2) creating adaptive curricular structures for a changing external environment (e.g., COVID-19), 3) achieving buy-in of all key stakeholder groups through inclusive programming and proactive leadership endorsement, 4) maintaining program relevance through ongoing accountability to learners, and 5) fostering a sense of community and collegiality among cohort members and program as well as institutional leadership. Interventions/Improvements made When coordinated by a hub-team (e.g., cHOP) with strategic intentionality, such activities strengthen critical talents, such as faculty and staff, more effectively, thus contributing to the fulfillment of the mission of an AMC. cHOP was able to leverage collective wisdom from its interdisciplinary team to develop these programs. The diverse perspectives from meetings and a pilot session strengthened the buy-in and marketing strategy, contents development, and interactive learning environment. Results Preliminary assessments using surveys and 1:1 coaching sessions have demonstrated positive feedback from participants. The combination of synchronous and asynchronous, in-person, and virtual formatting, and the longitudinal and relational nature of the programs was seen as an impactful and successful delivery strategy. Sustainability/Spread cHOP is developing a more comprehensive assessment methodology (e.g. logic models and longitudinal surveys) to track short-, mid and long-term outcomes of the programs. Intentional creation and systematic coordination of a professional and leadership development program that is inclusive, relational, and longitudinal is possible in the AMC setting and can effectively promote cultural identity, mission coherence, and a growth mindset in its workforce.

Ignite: Short Communications 1

(Breakout Room 3)

"EBQ FTW: Engaging Faculty, Residents and Students in Evidence-Based Medicine through Text-Delivered Weekly Quizzes" (T. Sutton, & G. Luckey)

Abstract: A problem: Developing an understanding of the principles of Evidence Based Medicine (EBM) is broadly recognized as an important skill for Family Physicians. Despite this, in a nationwide CERA survey of Family Medicine Residency Program Directors (PDs), the PDs reported that their programs had difficulties involving faculty in teaching EBM principles and skills, and also limited protected time for residents to train in EBM skills. Our Family & Community Medicine department deals with similar struggles with EBM. Residents and faculty alike are uncertain how to best keep up to date with current literature, how to evaluate the quality of new information they encounter, and how to

incorporate new information into clinical practice. Additionally, our learners in particular face the challenge of working with different attending physicians in varied environments, and often get conflicting instruction on what "best practices" are in even the most common of clinical scenarios. These concerns formed the basis for the development of our intervention: the weekly Evidence-Based Question (EBQ). Innovation Idea(s): We instituted a program-wide evidence-based weekly question timed quiz sent out via text message to improve exposure to up-to-date evidence-based medicine topics from recent literature. Texting as a medium is accessible for most, making a response quick and easy. Questions were developed from expressed topics of interest from faculty and residents and recent published literature relevant to current practice. An evidence-based question was sent out via text message weekly for 20 weeks to faculty and residents. Participants were divided by clinic teams to create friendly competition. Participants were allotted approximately 18 hours to access the question before the question was no longer available, and each question was timed (1-3 minutes). The answer, team results, and resources were then administered via email. Participation was encouraged but not mandatory, and responses were anonymous. A feedback questionnaire was sent out to all faculty and residents following the 20 weeks. Potential Impact of the Idea: Engagement was generally higher for residents compared to faculty, and the intervention was well received (FTW: for the win). Another 10-week session began January 28 with a new text platform and streamlined process. Initial results of the EBQ indicate that the gamification via weekly quiz is an effective way to integrate evidence-based research and practice into resident curriculum, incorporate interprofessional teams, and to keep the topic of evidence-based medicine fresh and fun. The addition of the new bulk texting platform could create further opportunities for connecting with learners and faculty in an informal and engaging manner. About the Author: Georgia Luckey, PhD, MS, Assistant Research Professor in the Department of Family and Community Medicine, coordinated the EBQ questions and answers for the first 20 weeks, texting teams from her personal mobile device. She is excited to relinquish that responsibility.

"Innovative Curriculum: Increasing Student and Faculty Awareness of Health System Science in Clinical Practice" (N. Dougherty, T. Johnson, & M. Volle)

Abstract: The Problem: The AMA Education Consortium recently proposed a new model for medical education. It includes the traditional curricula of basic and clinical sciences, and introduces a novel "third pillar" that addresses health systems science (HSS) (AMA, 2017). In recognizing the need for inclusion of health systems science education, it is widely acknowledged that the current delivery method is largely either A) incomplete and primarily based on faculty interest, or B) learned through the hidden curriculum for which there is no assessment of the content, continuity, or effectiveness of HSS education provided (AMA, 2017). At SIU School of Medicine, convincing undergraduate medical students of the importance of the population health curriculum developed by the Department of Population Science and Policy (PSP) has been challenging. In efforts to master the acquisition of clinical medical knowledge, public and population health topics are often given less priority, and as they move on to clerkships this is further reinforced by a majority of faculty who never received formal education in health systems sciences and may not fully recognize its significant impact in daily practice (AMA, 2017). According to the World Health Organization, the responsibility of teaching public health in medical schools should be shared. Rather than the burden falling to the department of preventative or social medicine, other disciplines should play an active role in teaching these topics (WHO, 2010). PSP has been working to develop the health systems science curriculum in years one and two, but finding ways to integrate population health topics into the final two years of students' clinical experience remains an important goal. The Innovative Idea: PSP is working to create an overarching framework which knits together clinical medicine and public health education, thus developing a coherent public health curriculum. PSP proposes to present an Ignite session at the 2020 Symposium on Teaching and Learning visually detailing the steps currently being taken to increase student and faculty awareness of health systems science in clinical practice, and remaining challenges and ideas to innovate PSP education in the third and fourth years. The Potential Impact: The innovations being made to the population health curriculum will positively impact the overall medical education experience at SIU School of Medicine, thereby producing physicians who are increasingly equipped to deliver better patient care and thus improving health outcomes in our service region and beyond. In addition, if developed and implemented well, the revitalized curriculum could be replicated in other medical schools across the nation which are addressing the need for a shared burden of increased focus and teaching of population health sciences. Authors: Meredith Volle, MD, MPH, is the Education Director for the Department of Population Science and Policy and a general pediatrician at SIU School of Medicine. Tracie Johnson, MA, serves as Assistant Instructor for PSP. Natalie Dougherty is a Medical Education Program Specialist.

"It's Game Time" (M. Aiello, & K. Reynolds)

Abstract: Some say adults learn differently than children and adolescents. It is possible the differences are based on the environment in which learning occurs. In general, adults learn through self-directed learning, motivation, and life experiences. One motivator for learning may be through game playing. Game-based learning is becoming an alternative to traditional teaching in medical education. In this session, we will describe and discuss how game playing is used to train feedback skills in standardized patients (SPs). Despite current feedback training methods, SP feedback needed to be refreshed/energized. A game was designed to augment feedback delivery skills. Learners first participate in a didactic session covering objectives for delivering feedback followed by a session on game playing. The facilitators encourage a safe gaming and anxiety free atmosphere. Preliminary feedback indicates standardized patients enjoyed the game and felt it was a good way to learn the fundamentals for providing feedback. The game may also be used (with some modifications) with faculty, residents, and students to improve their feedback skills. Rationale: Standardized patients are required to provide feedback for teaching and assessment cases at this institution. In addition, the administration wants the feedback to be useful. Using motivational techniques as in game playing may improve the quality of the feedback. Objectives: Describe the fundamentals of giving feedback. Hands on application of newly learned feedback skills through game playing. Discuss pros and cons of teaching feedback skills through game playing. Questions: What are the advantages/disadvantages of teaching feedback through game playing? Is this a useful training technique for training feedback?

"STEM Classes and Explaining Complicated Topics in Simplified Language" (S. Goel)

Abstract: A Problem: As medical students and future physicians, we tend to have significant interaction with patients that have reading levels. The national average reading level is around 7th-8th grade and I have often heard the local reading level to be somewhere around 3rd-5th grade. We have to be able to take concepts and re-work them so that we can talk to our patients. In the past I did a Service Learning Project focusing on the Socioeconomic Status (SES) education gap and STEM education. I revamped this project to be more relevant to medical students and still have some positive impact on the community. I still want to address interest in STEM careers and increase general education, but also include a touch of having medical students practice rewording difficult topics. STEM stands for Science, Technology, Engineering, and Mathematics. Since the medical field falls under STEM, increasing interest in the field will be beneficial. According to AAMC, there will be a shortfall of up to 139,000 physicians by 2033, aided by retiring physicians and an aging population. This does not take into account the 1+ million nurses shortage or other healthcare personnel. By increasing interest in STEM fields (with lessons focused more towards medical application), these lessons could hopefully help increase the number of kids interested in a medical profession Innovation Idea(s): The project consists of 4-6 lessons that 20-30 min long for 3rd to 5th graders to increase interest in STEM fields. Currently the Neurology Interest Group (SIGN) is helping run this project. Each lesson contains a presentation portion on topics such as Geology, the 5 senses, Water, Anatomy, etc. The group provides the supplies per lesson to the school before the lesson and the lessons are scheduled virtually. Potential Impact of the idea: I worked a precursor to this as a Service Learning Project I created/conducted during my undergraduate years with a contracted timespan. Currently the lessons have a more Neurological focus, since they are being run by the Neurology Interest Group. We could monitor the impact of the project on medical students by giving a before and after assignment to see how far they can simplify a topic. We could monitor the impact of the project on the community by having a survey on the interest in STEM fields before and after the lessons have run their course. Pitfalls include getting the lessons coordinated with classrooms, getting medical students to volunteer to teach, gathering data through pre- and post- surveys and buying supplies for some of the lessons. We may not be able to run this for a long enough time to see a change in average SAT scores. About the Author: My name is Srishti Goel. I am an MS4 going into Internal Medicine. My eventual goal is to be involved in academia and I enjoy teaching/learning. I am currently involved in multiple interest groups involved in teaching including the Internal Medicine Interest Group, Neurology Interest Group, Pipeline, etc.

Student Hotspotting

(Breakout Room 4)

"Going the Distance Together. . . Community-Based Interprofessional Education with Medically and Socially Complex Patient Populations:" (J. Frueh, H. Cherry, M. Golden & R. Miller)

Abstract: Title: Going the Distance Together…Community-Based, Interprofessional Education with Medically and Socially Complex Patient Populations. Speakers: • Janice Frueh, Moderator • Hope Cherry and student members for SIU Student Hotspotting Team 1,2 • Meghan Golden and student members for SIU Student Hotspotting Team 3,4 • Rachel Miller and student members for SIU Student Hotspotting Team 5,6 Rationale: Health-related professional programs focus on developing unique professional skill sets (ex. medical education teaches skills to diagnose health conditions, social work education builds assessment skills in conceptualizing patients in a biopsychosocial manner) that are intended to compliment team-oriented collaboration. However it is often challenging to incorporate real-world educational experiences that are a true team-oriented approach. The SIU School of Medicine (SOM) is an educational training hub site for the National Center for Complex Health and Social Needs' Student Hotspotting (SH) Program. SH is an interprofessional program that develops leadership, advocacy, self-awareness, and other fundamental professional skills through a community-based learning experience. Students' focus on recognizing and advocating to resolve social, emotional, financial, and societal barriers. The AAMC has called for the need to develop "value-added" learning experiences to the clinical health care system. The SIU SOM's SH program is a model "value-added" learning experience due to students gaining first-hand knowledge of the barriers created by health care inequalities that lead to significant health outcome disparities and gain knowledge about patients, systems, and communities. Objectives: After attending this workshop, the learner will be able to: (1) Describe 2 positive and helpful lessons learned in the initial stages of interprofessional teaming. (2) Apply 2 evidence-based patient-centered care practices. (3) Identify 3 health-care system barriers/opportunities and innovative approach(s) to address these. (4) Compare and contrast the development of an authentic, healing patient relationship from a longitudinal learning approach compared to a traditional clinical-oriented learning approach. Session Format: 5 minutes–Brief introduction about the SH program. Participants will be provided a "bingo" card that will be used to identify learning objectives. 40 minutes-Participants will interact with each SIU SOM's SH teams via a poster or interactive exhibit which will be a case-example of interprofessional teaming and patient-engagement. Participants will complete the "bingo" card based off of the case-example and team discussion. 5 minutes–Participants will share "bingo" card findings. SH teams will share final thoughts and lessons learned. Experience: • Janice Frueh, PharmD, Clinical Associate Professor in the SIUE School of Pharmacy, SIU SOM SH Hub Leadership Team Member, and a founding faculty advisor of the SIU SOM SH program. • Hope Cherry, MA, CHES, is a Program Director for SIU Office of Community Initiatives & Complex Care (OCICC) with a masters degree in communications and is a certified community health education specialist. • Meghan Golden is a licensed clinical social worker, Director of Education at SIU OCICC, a founding faculty advisor of the SIU SOM SH program, and provides psychotherapy to individuals with co-occurring PTSD and substance use disorders. •Rachel Miller is a licensed clinical social worker and the primary faculty leading SIU SOM's Carbondale based SH program.

SESSION II   10:30-11:30

Research Presentations 2

(Breakout Room 1)

"Faculty's Perception of Culture Conducive to Faculty Career Success in Academic Medicine" (H. Han, V. Prakash, R. Korte, & S. Hingle)

Abstract: Research Questions The research question is what is faculty's perception of the institutional culture regarding their career success in academic medicine. Background To understand the culture for gender equality at SIUSOM, Alliance of Women in Medicine and Science (AWIMS) conducted a survey using the Culture Conducive to Women's Academic Success (CCWAS) questionnaire in 2017.1 While the survey provided some information that there was no overt gender disparity at SIUSOM, departmental differences were observed. Even after the study, it remained unclear what culture faculty live within regarding faculty career success in academic medicine. There is limited literature to provide a clear understanding of faculty career and success in academic medicine.2 Therefore, we continued to explore this topic by conducting a qualitative study. Methods With IRB approval, we conducted twenty-three interviews in 2019. With participants' consent, the interviews were recorded and transcribed for data analysis. Based on a grounded theory approach, two researchers (HH, RK) conducted data analysis starting with open coding, followed by categorization and axial coding to uncover themes. Findings Supportive Culture yet Unequal: Overall participants perceived a collaborative and supportive culture at the school. But they also perceived that inequalities exist, which they did not necessarily perceive as negative. Each faculty member had different needs and roles based on their types of work and positions. Participants perceived that chairs selectively accommodate faculty's individual needs for collective success as a group and organization. Given Opportunities: Faculty career development and success is related to having access to opportunities for development. Faculty perceived that career opportunities are mostly given by leaders to faculty members. Opportunities include being offered leadership positions, valued job assignments, career development training programs, and promotions. Faculty having access to opportunities were willing to take on the risks and take the given responsibilities. Some believed that they were not ready yet, but trusted the decision of their leaders. Those who did not have much access to opportunities, however, found that it is unclear to see how they can get access to the opportunities and resources. For clinical faculty, career opportunities are strongly related to their roles. Those who are mostly clinical have limited access to resources because of their roles. Promotion Divide: The faculty's experiences of the promotion process differed by disciplines and chair support levels. Basic science faculty were familiar with clear expectations regarding promotion/tenure. On the contrary, clinical faculty had significant uncertainty and confusion regarding their promotion process. However, if clinical faculty are supported by chairs and given opportunities, their promotion expectations are clear. Most participants shared that they were either told they were ready or should not apply for promotion by a chair. Clinical faculty did not see a benefit to promotion. Despite numerous years of patient care, they perceived that their roles/jobs are still at an entry level. Conclusions Faculty's different roles in academic medicine lead to their distinctive career development experiences and unequal access to opportunities. Clinical faculty's career in academic medicine needs to be revisited to embrace diverse career paths and promotion criteria.

"Ambiguity Tolerance in Students in a Premedical Post baccalaureate Program" (A. Metz)

Abstract: Non-academic qualities (persistence, flexibility compassion etc.) are, along with academic indicators, important attributes used to determine a candidate's suitability for medical school. The Tolerance of Ambiguity (TofA) scale measures a subject's (in)tolerance for ambiguous situations (intolerance for problem novelty, complexity and insolubility), which may impact academic success in medical school. The purpose of the current study is to determine the level of ambiguity tolerance in students entering a rigorous premedical post-baccalaureate program for students underrepresented in medicine (UIM), and to determine if ambiguity tolerance is changed by the program curriculum, which stresses flexibility in thinking and critical analysis. Incoming TofA survey results were compared to a second non-cognitive measure for program admission (interview scores). TofA scores correlated moderately to interview scores but did not correlate significantly with any applicant cognitive test results (reading, math, chemistry and biology tests),

suggesting the ToA survey provides a unique non-cognitive measure. 130 students subsequently admitted to the program (over 4 years) were tracked academically in their first year and retested using the TofA instrument after 1 year. The TofA appears to moderately predict academic performance in the first semester, but students also appear to become less tolerant of ambiguity after a year in the program. Implications for the use of the TofA survey as an admissions instrument, as well as thoughts about the use-value of the TofA in assessing student readiness for medical school, will be discussed

"Improving Medical Student's Virtual Rounding Experience - A Qualitative Analysis." (A. Rafaquat, T. McGowan, M. Were, Y. Fedorovich, H. Han)

Abstract: Background: Due to the COVID-19 pandemic, on March-17th 2020, AAMC suspended all clinical activities for medical students. Clerkship students in our institution had to be withdrawn from any clinical activities. However, given the novelty of the situation, our in-patient pediatric-unit formulated a "Virtual-Rounding Curriculum". In this online format, students participate in pre-rounds, family-centered rounds, and educational case-based discussions virtually via secured Cisco-WebEx-video-conferencing. As remote learning provides limited opportunities for clinical immersion, it became critical to understand how we can implement virtual rounds effectively for student learning experiences. Goal: The goal of this project is to discover the principles of effective medical student virtual learning based on student's experiences and share lessons learned for the medical educators. Supporting Evidence: Virtual rounding in the inpatient setting has not been extensively explored. The literature on this subject is also scarce. Interventions: We conducted an action research project, where we experienced transformative changes and learned as we were simultaneously going through the new practice to solve the problem. Data sources were observations of virtual rounds and focus groups. We conducted focus groups with 6-students enrolled for 2-weeks in virtual-rounding during pediatric inpatient-clerkship. As the pandemic improved, 4-students enrolled later, alternated virtual with physical rounding each week. We did focus groups before, during, and after their experience and record and transcribed them. Once a week, virtual rounds were also observed by a medical educator, and field-notes were created. Results: Based on the data, we extracted several themes and generated the following recommendations. Participant's orientation: All team members including residents, faculty, staff, and students should have clear expectations before/during/after virtual rounds. Importance of pre-rounds: Virtual rounds start even before rounds. A student's pre-round is important to set social relationships with patients and residents. During rounds: -Student's involvement in virtual rounds is supported by audio and video. Separating audio from video is helpful as an audio device can move around near the talker. -Having a constant contact person in the team, such as a resident can be helpful for a virtual student especially when having questions and technical problems. -EHRs with screen sharing are useful during hallway discussion of patient cases. -Explicit efforts to involve virtual students will help engagement more as they rarely speak-up due to a lack of social cues. After rounds: -Debriefing for 15 minutes with the attending-physician will help the virtual student to address educational points and questions raised during rounds. -Assigning virtual students some work such as lab, a consult call, etc. can be helpful for them to feel engaged in clinical work. Sustainability/Spread: Virtual rounds cannot possibly replace in-person clerkship experiences. However, if this pandemic continues, virtual-rounds can safely provide medical-students some degree of clinical immersion and clinical socialization experiences. This study contributes to the understanding of the effective implementation of virtual-rounds to improve student's virtual learning experiences and provides practical guidelines for medical educators who may need to adopt this new practice in clerkship. This study was in an inpatient-setting. Therefore, the recommendations are not generalizable to other clinical settings.

"Impact of the shift to online instruction on underrepresented students in postbaccalaureate premedical program." (A. Metz)

Abstract: Background: The advent of the global COVID-19 pandemic resulted in an abrupt shift to online instruction. MEDPREP is a long-standing post-baccalaureate premedical preparatory program housed within the SIU School of Medicine, serving students from disadvantaged socioeconomic backgrounds and students from groups traditionally underrepresented in medicine (UIM) [1,2]. The program is traditionally taught in-person, with a strong emphasis on individualized academic assistance, mentorship, one-on-one advising and academic rigor. Therefore, switching to a fully online (summer) and hybrid online (fall) instructional format represented a significant departure from the norm at MEDPREP. Goals The goals of the study were to understand the academic impact of the abrupt shift to online instruction on student learning. We furthermore wished to understand the students' perceptions of their ability to learn in an online, as compared to an in-person, environment, and we hoped to glean best teaching practices from the experience. Baseline data As a baseline, we utilized academic performance data for MEDPREP students completing

summer and fall semesters of a three semester biology course offered in 2019 (n=33). Intervention Students entering MEDPREP in 2020 completed the same courses, but in an online format (n=25). In both cohorts, the topics and exams were identical. Student exam scores were compared, and students in the online cohort completed an anonymous Likert-question and short-answer survey regarding their educational experiences. Quantitative data analysis was performed in SPSS, and qualitative themes for survey questions were compiled. Results Academic performance for both cohorts was measured by average exam scores. Performance was nominally, but not significantly, lower in the first, completely online (summer) course as compared to the in-person cohort (p = 0.19), but rebounded to similar levels as in-person instruction in the fall course, which was "hybrid" (online lectures with one weekly in-person discussion hour) (two exams compared: p= 0.99; p=0.51). Survey results indicated that students moderately preferred in-person instruction, often felt isolated and disconnected from professors and peers by online instruction, and strongly agreed they would be more engaged in-person. Still, they also only rarely felt that COVID-related stress impacted their coursework. Students provided useful feedback for best practices" to improve engagement in online and hybrid instructional environments, including: regular and frequent communication with students through use of video bulletins, announcement boards and emails; taking care to minimize technological barriers; ensuring good access to instructors via regular (online or socially distanced) office hours; use of interactive components (e.g. problem solving) in online lectures to increase engagement; and numerous opportunities to actively practice understanding of course material. Furthermore, students identified that access to recorded lectures, were extremely helpful, and they appreciated the ability to do remote consultations with professors and the opportunity to complete and turn in assignments online. Sustainability and Spread It was useful to learn that adding even a small proportion of in-person sessions to an online program increased student satisfaction and engagement. Furthermore, surveying students helped us find "silver linings" in online instruction that we anticipate will improve the learning experience even upon a return to in-person curriculum delivery.

Small Group Discussions 2

(Breakout Room 2)

"Insights on Interprofessional Education to Build Competencies and a Collaborative Workforce for Family Medicine" (T. Sutton, B. Miller & S. Malone)

Abstract: Title: Insights on Interprofessional Education to Build Competencies and a Collaborative Workforce for Family Medicine Speakers: Brooke Miller, MPAS, PA-C Sara Malone, MD Rationale: The primary factors that shape the health of Americans are not medical treatments but rather the living conditions they experience where they are born, live, learn, work, and play. These conditions (known as the social determinants of health, or SDOH), affect a wide range of health, functioning, and quality-of-life outcomes and risks. As healthcare providers supporting the patient-centered medical home, we must address the SDOH of patients and communities to achieve lasting health benefits for patients and populations. To do so, it is imperative we rely on interprofessional healthcare teams to provide a broad spectrum of physical, mental, and social supports, that deliver a consistent message of health and well-being. Speakers will discuss the development and implementation of a comprehensive interprofessional education (IPE) curriculum for Physician Assistant (PA) students and resident physicians, and the need for both foundational and continuing education to deliver high quality interprofessional collaborative practice. They will include lessons learned about sustainable culture change within the clinic and the need for organizational support and site champions. This work is supported by a HRSA Primary Care Training and Enhancement award. Objectives: Define SDOH and the importance of addressing with patients. Discuss the benefits and key elements of an interprofessional healthcare team. Identify potential risks and challenges for implementing a non-traditional interprofessional approach. Session format: Presenters will briefly review SDOH and why it is important for providers to address in the care of patients (5 min). They will then discuss the IPE experience in Carbondale including faculty development & culture change; IPE events for residents, PA & medical students, and faculty; and the integration of Community Health Workers (CHWs) into the clinic. Presenters will focus on challenges, benefits, and lessons learned so that participants may think critically about the need for and difficulties of culture changes in their own practice (30 min). Presenters will introduce the interactive Six Thinking Hats method of strategic planning to discuss the expansion of the IPE curriculum to Decatur and Quincy hub sites, carefully considering all aspects (facts, biases, benefits, risks, and creative solutions) and how the interprofessional team can move forward collaboratively (10 min). The presentation will leave at least 5 min for Q&A at the end. Experience: Brooke Miller, MPAS, PA-C (Director of Clinical Education and Assistant Professor of the Physician Assistant Program in the Department of Family and Community Medicine), is co-author of the HRSA PCTE award that supports this work, co-author of the IPE curriculum, the PA Program's IPE faculty champion, and PCTE site champion for expansion to

Quincy. Sara Malone, MD (Associate Professor of FCM, Department Director of Quality, Director of Clinical Services at Carbondale & West Frankfort), is co-author of the HRSA PCTE application, co-author of the IPE curriculum, the Carbondale Residency site's IPE faculty champion, and PCTE site champion for expansion to Decatur.

"Breaking down silos in coaching, mentorship, and advising at SIU School of Medicine" (A. Wilber, K. Chauhan, and J. Mellinger)

Abstract: This small group discussion will focus on personal and professional development. Representatives from the Alliance for Women in Medicine and Science (AWIMS) and the Center for Human and Organizational Potential (cHOP) will discuss the roles of a coach, mentor, and advisor in maximizing professional and personal development in an academic setting. The roles share a common goal of assisting an individual to maximize their potential in academics, work, or life. The relationship can be a single meeting or an ongoing interaction that people revisit regularly to address recurring needs. At SIU School of Medicine, resources are available through cHOP and AWIMS to meet these needs. cHOP provides access to trained coaches who are available for consultation and training. Likewise, AWIMS has a mentorship program designed to match mentees and mentors of similar backgrounds and experiences. These opportunities exist to help employees and learners achieve their goals in multiple realms and to identify and remediate any concerns. Attendees will learn about these opportunities and determine which role fits their particular need(s). The session will provide a forum for interactive discussion designed to assist members of the SIU School of Medicine community achieve their highest level of ability and performance. Topics covered: 1) Opportunities in coaching, mentorship, and advising available through cHOP and AWIMS. 2) Differences between a coach, mentor, and advisor and the specific roles that each can play in an individual's development. 3) Identifying the ideal coach, mentor, or advisor that will be of greatest personal benefit to the individual. 4) Optimizing the relationship with a coach, mentor, or advisor.

Small Group Discussions 3

(Breakout Room 3)

"Analyzing Medical Education Scholarship to Promote Culturally Sensitive Universal Design for Learning" (A. Cianciolo, T. Kelley, B. Madden, E. Maduakolam, E. Odukoya, F. Olawuni)

Problem. Black, Indigenous, and other People of Color (BIPOC) are underrepresented in medicine and in medical education scholarship.1 As a result, BIPOC perspectives are absent from thought leadership, which perpetuates exclusionary beliefs, actions, and policies that further entrench educational disparities. For example, a scoping literature review on health professional identity formation,2 found little consideration of race or ethnicity, even when such data were collected (see also3). Yet, studies show that professionalism concepts differ culturally from the dominant perspective that has shaped physician instruction and assessment for decades.4 Studies focused on BIPOC perspectives are appearing more frequently, but they are isolated from mainstream conversations about medical education fundamentals. Theory about these perspectives is emerging, but there has been little advancement on theory that includes these perspectives. A racially integrated understanding of medical education could promote culturally sensitive universal design for learning (CSUDL).5 CSUDL, which identifies how learning environments afford access for some students and constrain access for others, offers a diverse set of paths to engagement and success. An important first step to CSUDL is exploring the implications of BIPOC trainee experiences for design. Innovation. As part of its Anti-Racism Strategy,6 Teaching and Learning in Medicine (TLM) is seeking BIPOC trainee perspectives on the articles published in selected TLM issues. To inform CSUDL for medical education, this effort is soliciting trainee perspectives on the implications each article has for BIPOC learner engagement and success. For example, trainees' description of the threats and stressors potentially operating in the intervention presented in a given article will be used to identify alternative approaches that afford BIPOC learners a safer and more productive way to engage. Trainees' perspectives will be shared with the international medical education community as commentary articles published in TLM. Each commentary will appear in the issue featuring the articles reviewed. The first commentary appeared in TLM's final issue of 2020.7 It was co-authored by a Black female surgery resident, three Black female medical students, and TLM's Editor (a White female). To draft the commentary, the trainees first individually reviewed the articles and reported their reactions in a collaborative Google document. The group met periodically via Zoom to discuss their reactions while the

TLM Editor took notes. At the end of each meeting, the Editor verified her notes with the trainees present. After all articles had been reviewed and discussed the Editor wrote a draft commentary, integrating her discussion notes with the trainees' written reactions. The group met again to critique and collaboratively edit the draft, meeting as needed to produce the final version. A revised version of the manuscript was distributed to one of the Editor's peers for review. Peer review comments were incorporated into the final manuscript. The second commentary is currently being drafted by the same group of co-authors plus two additional Black female medical students. We intend for commentary authorship to shift over time to accommodate authors' interests and availability as well as to open the series up to additional BIPOC perspectives from more medical schools. As the commentaries accumulate, we will map the perspectives shared against the CSUDL framework to identify specific recommendations for inclusive curriculum reform. This effort will continue until we reach saturation in identifying recommendations. Potential Impact. Our first goal is to draft a CSUDL blueprint for undergraduate medical education. We aim to help educators see learner diversity as an opportunity to exercise the art of education, rather than a threat to standardization and efficiency and cause for discrimination. Second, we aim to promote more inclusive medical education scholarship by making authors published in TLM more accountable to the full range of learners; we anticipate seeing more studies that take race/ethnicity into consideration and, consequently, the advancement of inclusive educational theory. For now, our effort has been personally rewarding, even cathartic; it has provided us the opportunity to explore and share our thoughts about medical education as well as a valuable learning and professional development experience. References available upon request.

"Mitigating Bias in the Medical School Curriculum" (W. El-Amin, C. Smyre, K. Hurst, T. Kelley, K. Coleman)

Abstract: Background: Bias within higher education has been well documented, and its prevalence in medical education is a concern that needs medical educator attention. Overview: This workshop is designed to create a collaborative cultural responsive teaching approach. Given the nature of our problem-based learning curriculum, there is an opportunity to explore instances in which bias might enter the curriculum through cases as well as small-group discussion. SIU SOM is committed to continuous improvement and addressing educational gaps. This conversation is designed to be a space in which an action plan can be developed to continue to improve the educational environment and critical discourse for all students. Objectives: Looking at an environmental scan, Identify instances of biases within the curriculum as well as other spaces in the educational environment. Using sample cases, demonstrate approaches to mitigating bias. Through participation of the anti-bias curriculum committee, discuss questions around issues of bias. Explore additional action items to further eliminate bias in medical education. Activities: This will be a highly interactive, hands-on session. We will open the session with doing an environmental scan of the first two years of medical school with the Columbia University Anti-Bias Curriculum as a frame to shape the scan. In small groups led by an anti-bias committee member, participants will explore sample cases and see if group members spot instances of biases and discuss avenues for improving the overall case. The anti-bias curriculum committee will serve as a panel. Questions around their experience over the past year will help shape the complexity of mitigating bias within not just the curriculum but the overall educational experience. Audience members may also offer up questions to deepen the discussion. Given the SIU SOM commitment to continuous improvement, participants will develop a 2020-21 action plan on the next steps they feel are most critical to address. References Dijkstra, A. F., Verdonk, P., & Lagro-Janssen, A. L. (2008). Gender bias in medical textbooks: examples from coronary heart disease, depression, alcohol abuse and pharmacology. Medical Education, 42(10), 1021-1028. Stone, J., & Moskowitz, G. B. (2011). Non-conscious bias in medical decision making: what can be done to reduce it?. Medical education, 45(8), 768-776. Van Ryn, M., & Saha, S. (2011). Exploring unconscious bias in disparities research and medical education. JAMA, 306(9), 995-996.

Professional Development Workshops

(Breakout Room 4)

"Rethink productivity through time, task, and stress management" (S. Suh)

Abstract: • Title: Rethink productivity through time, task, and stress management • Facilitator: Sookyung Suh, Ph.D. PMP • Rationale: In this day and age, faculty, staff, and learners juggle a variety of work from curriculum development

and teaching to committee work for national and international meetings. Also, school and hospital administration requirements and other obligations can quickly add up to their plates. If not careful, an ever-growing list of to-dos, scope creep of roles and responsibilities can be overwhelming. The workplace burnout rate is not only real among business and healthcare professionals but pervasive among academic faculty as well. If we cannot control the amount of working falling onto you, at least, we can learn how to manage those tasks effectively and learn to work smart. Better yet, we should reflect on productivity and what it means to us when it comes to our daily tasks and responsibilities. In this hands-on workshop, the presenter will share the tips and strategies to 1) prioritize, 2) plan projects, and 3) manage tasks. In addition, they will have time to identify activities and things that recharges their energy and develop a plan to use them in stressful situations. Several widely used business prioritization methods will be presented, so learners will have a chance to compare those and choose what fits the best for themselves. The participants will learn about a couple of popular task management tactics. Then, they will have opportunities to apply these strategies during exercises and discussions. • Learning objectives: The participants will be able to: • Describe a variety of ways of prioritizing tasks and projects • Apply task prioritization methods to their tasks • Identify the cause of stress and create a list of activities to relieve stress • Session format: Part 1: Introduction (5 mins) Part 2: Time and Task management (20 mins) • Task management methods review: Brain dump, ABCDE prioritization, Importance/Urgency matrix, Getting Things Done, Highlights • Exercises: Prioritize to-do list Part 3: Stress management (20 mins) • Concept of "Charging Station" • Exercise: create your charging station PART 4: Closing (5 mins) • Q&A • Experience: Sookyung Suh, Ph.D. PMP is an assistant professor of the Department of Medical Education and director of organizational changes in Southern Illinois University School of Medicine, with years of management consulting experiences in helping implement organizational change in healthcare, manufacturing, academia, and government.

SESSION III   11:40-12:00

Poster Presentation 1

(Breakout Room 1)

"An Interprofessional Education Program to Promote Nurse-Resident Relations" (A. Joseph, J. Goeckner, & H. Idrizi)

Abstract: Research Statement: Can an Interprofessional Education program between nurses and interns improve collaborative work relationships? Background: Interprofessional collaboration (IPC) refers to cooperation among healthcare professionals across disciplines and is considered a key element for providing high-quality clinical care. There is substantial data supporting that good patient care requires collaboration and that healthcare professionals need to function as part of an interprofessional team. However, existing literature demonstrates that physicians and nurses do not always work together in true partnership. Differences in training and protocols, hierarchical team formation, and lack of knowledge about each other's roles all serve to hinder true teamwork. Newly qualified physicians spend a generous amount of their training with nurses, requiring open communication and strong work relationships. The Pediatric Partners in Advancing Interprofessional Relationships (Pedi PAIR) program was created as a response to strained relationships between nurses and residents at the residency program's primary training site. This program is based off a similar program at UT Health San Antonio and strives to offer an Interprofessional Education (IPE) curriculum that promotes cooperative work relationships between junior doctors and nurses. This program pairs pediatric nurses with SIU pediatric interns and allows them to learn from one another during the course of the academic year. Methods: Participants in the Pedi PAIR program include St. John's Children's Hospital pediatric nurses and SIU School of Medicine pediatric interns. Each nurse was paired with an intern based on results from the colors personality inventory. The participants meet as a group every second month to discuss various topics that can be barriers to IPCs, such as communication styles, misconceptions, and conflict resolution. Each nurse-intern team was also encouraged to meet outside of these sessions to discuss assigned topics, for example, differences in education and training. Shadowing experiences for both the nurses and interns will also be incorporated to increase awareness of the daily responsibilities for each side. The program also includes journaling responses based off of prompts pertinent to IPCs. Pre-and post-program implementation surveys will also be obtained to measure changes in collaborative work relationships. Findings: Preliminary qualitative analysis of journaling responses demonstrate a positive impact in IPC attitudes. Responses highlight an improved ease of communication and the creation of a more "relaxed" environment. Improved familiarity between nurses and interns has led to diminished feelings of intimidation and increased ease in offering and asking of

assistance. Both sides have reported that meeting outside of the workplace environment and regular sessions have resulted in deeper understanding and a more empathetic view of each other. Based on anecdotal feedback from current pediatric floor staff, a positive influence in interprofessional work relationships has been noted. Conclusions: The Pedi PAIR program in its inaugural year has thus far met its original objective of promoting a more collaborative nurse-resident relationship. Although unable to measure the change in the clinical environment at this time, further journal response analysis and the post-implementation survey data will be collected to assess this. Data collected to date, observations, and anecdotal reports illustrate a positive impact.

"Improving diversity among the residents in SIU pediatrics" (M. Were, A. Anudu)

Abstract: Background: There continues to be a need for increased diversity within health organizations worldwide and SIU Pediatrics Residency Program is no different. Currently, within the program only 8.6% of the residents are considered Underrepresented in Medicine (URM) and this has been the case over the past 2 National resident matching program cycles. URM in medicine according to the Association of American Medical Colleges includes Blacks, Mexican-Americans, Native Americans, and mainland Puerto Ricans. During the interview and ranking processes, SIU is nondiscriminatory in selection applicants. Despite this, there has been a failure to increase the pool of residents recruited who fall in the category of URM. Because of this it is evident that changes need to be made within the recruitment process in an effort to increase the diversity within the program. Goals for the project: Increase the number of URM who apply and match into SIU pediatrics by 10% over the next 3 years. Baseline Data: Although numerous publications have been done on the importance of diversity in the workplace and specifically the medical field, there are limited studies done within the residency program subdivision that provide guidance on the matter of increasing diversity. Previously, two studies that have been done in the Internal Medicine and Emergency Medicine field that had promising results in the way of improved diversity when a program is intentional within the recruitment process. With this knowledge and with the ease of virtual meetings that permit for multiple people to meet at a specific time, we wondered whether an intervention as simple as a social hour specific to URM would lead to an increase in the matriculation of candidates into the residency program. Interventions: In the 2020-21 academic year, in order to increase the number of URM physicians who would eventually matriculate into SIU pediatric residency, two extra social hour sessions were added to the recruitment process. These were geared specifically towards URM candidates who had applied to the program and had been selected to be interviewed or were going to be interviewed. This was in an effort to solidify the residency program's dedication to increased diversity and to provide a safe space for conversations of concern to URM to be had. These sessions were held by URM residents which also increased visibility. As the 2020-21 interview season was mainly held over web based mediums, it was particularly easier to organize such a meeting as compared to previous interview seasons. Results: Based on feedback received by the Program Director during interview season, the social hour was a success and the URM candidates appreciated it. It remains to be seen in March 2021 whether it will have an impact on the number of URM physicians who will be matriculated into the program. Sustainability: More needs to be done in order to see if the results will be sustainable and further efforts need to be put in place in order to start and maintain a trajectory of enrollment of URM within the program at SIU pediatrics.

"Inpatient Consults: Introducing an Institution-Specific Consult Tool to Increase Efficiency and Confidence amongst Pediatric Residents and Medical Students" (E Mosleh, & N Patel)

Abstract: Safe and effective communication is undoubtedly one of the most important concepts in modern medicine. Despite that, little to no formal education – whether in medical school or residency – is given regarding that subject. A Review of the literature and an in-house Southern Illinois University- School of Medicine (SIU) survey concluded that the majority (96%) of residents and students (n=60) are uncomfortable with the consult process. An online survey also revealed that the majority of Pediatric sub-specialists (n=35) are dissatisfied with the quality of consult calls within the Pediatric Department at SIU. In the same survey, 87% of the sub-specialists surveyed called for the creation of a standardized consult tool as a solution to this problem. Based on their feedback, we created a standardized consult tool which was distributed amongst residents as well as third and fourth year medical students. A 30 minute lecture was offered periodically regarding the utilization of the tool. Currently, the tool is being used as a guideline for inpatient consults in the department of pediatrics. The effects this tool will have on the confidence of residents and students, overall attending satisfaction, and accuracy of exchanged information will be measured with a post-intervention attending, resident, and student survey at the end of the Academic Year. We anticipate an increase in resident and student confidence, as well as an increase in over-all attending satisfaction.

Poster Presentation 2

(Breakout Room 2)

"Assessment and Improvement of Consult-Liaison Psychiatry Orientation Curriculum" (M. Bryant, L. Shea, & J. Hill-Jordan)

Abstract: Research Statement The purpose of our project was to determine changes that could be made in our Consult-Liaison Psychiatry Orientation that could optimize both learning and performance on the rotation. Background and Significance of the Study Literature shows that assistance for major transitions in learning environments can be aided by resources such as orientation (Colbert-Getz et. al 2016). Methods for curricula evaluation are also quite varied (Frey & Hemmer 2012). However, there is not much in the literature on the evaluation of the orientation process. The diversity of learners on our Consultation-Liaison Psychiatry rotation (referred to as the C-L rotation) can make orientation challenging. Study Design We used survey monkey to do a preliminary survey that was sent to all of the Psychiatry residents who had completed the C-L rotation at our institution at least once. We included questions that would assess opinions regarding whether orientation was even needed, and how effective the current orientation was. This survey allowed us to confirm that the perception of our residents was that orientation to C-L was both desired and needed in order for them to be prepared to participate in the C-L rotation more effectively. We then used the results of that survey to formulate a targeted needs assessment survey. We included 3 versions, one for each of the following groups: Internal Medicine residents, Psychiatry residents and C-L Psychiatry faculty. Findings Need for orientation: The attending respondents unanimously felt there are situations in which residents may be underprepared. Most residents did not feel they understood the expectations on the rotation. Some respondents also felt learning how to meet expectations is a learning objective of the rotation. Content: Internal Medicine residents wanted more information regarding how to conduct a psychiatric evaluation and what to ask regarding specific complaints. Psychiatry residents wanted to know more about decision making capacity and involuntary paperwork. Both Psychiatry and Internal Medicine respondents felt suicide risk evaluation was particularly challenging. Timing: The majority of residents preferred the entire orientation or some sort summary to be given out at least two weeks before the rotation; many preferred it would be given out a week prior. Delivery: Most of the Psychiatry residents indicated a preference to be oriented by a chief resident, and most Internal Medicine residents preferred either a chief resident or attending. Conclusion Our project demonstrates how data to help optimize performance in clinical rotations can be gathered from both learners and educators and can be specifically related to the orientations of such rotations. Limitations in applicability of our findings to other institutions may exist as we did not extend our study into other institutions. Our Internal Medicine resident cohort response rate was low so our responses obtained through the survey may not reflect the opinions of the majority. Our study highlights a novel approach towards improving an educational opportunity by focusing assessment on a rotation's orientation curriculum for the purposes of easing transition into that rotation.

"Physician Pipeline: An Educational Journey" (M. Mannion, N. Revelt, Z Paquin, E. Lister, H. Plattner, A. Worix, B. Tabiti, E. Emuze, C. Hitt)

Abstract: Research Statement: Pipeline programs have been documented to promote physician diversity, increase interest in healthcare fields, and medical school matriculation.1-2 No research exists to quantify medical student (MS) volunteering needed to run these programs. The purpose of this study was answering this question by analyzing MS involvement in P4. The following questions guided this study: 1. What has constituted MS volunteering? 2. How has the amount of MS volunteering changed over time? 3. At what rate is MS volunteering a longitudinal experience? This study may determine at what level MS are needed to sustain pipeline programs at other institutions. This study can also assess how frequently P4 provides MS with a highly valuable, longitudinal volunteer experience. Background: P4 has served the Springfield community by introducing medicine to local high school students (HSS) since 2009. P4's goal is to provide students, particularly those from disadvantaged backgrounds, a medical school experience in a curriculum delivered by physicians and MS. P4 also has the goal of providing a high-quality volunteer experience to MS. Volunteers are responsible for creating and implementing the curriculum. The curriculum is based on a four-year cycle to provide HSS broad medical exposure by incorporating cases, lectures, and skills labs. MS leadership plans P4 which involves reaching out to a pool of MS volunteers that are essential for the program's function. Study Design: The study design is a quantitative, retrospective analysis of past MS volunteering in P4. The following data was collected from past MS volunteer lists: MS volunteer names, total number of MS volunteers, and total number of and types of MS volunteer

opportunities. Data only exists after Fall, 2014 and for some sessions data was not available. Through MS volunteer analysis, trends were made over time regarding overall volunteer numbers and longitudinal involvement. Findings: MS volunteering roles have included the following experiences: leading tutor group, teaching history taking and physical exam skills, giving physiology lectures, teaching procedural skills sessions, leading simulation cases, and sitting on panels that discuss college and MS life. Many of these experiences have continued online during the pandemic. The number of MS volunteer opportunities does not show a definitive trend over time, but demonstrates that for each session, P4 provides between 40 and 95 individual opportunities for MS to volunteer (with exception of Fall, 2020). These opportunities are rarely not filled. The amount of MS volunteers has grown substantially over the years; since Fall, 2014 to Spring, 2020 the amount of MS volunteers over doubled from 20 to 45. Each session from Fall, 2018 to Spring, 2020 showed a steady increase in volunteering. Fall, 2020 demonstrated a large decrease in volunteering, attributed to the online transition. It was also found that MS volunteer over multiple sessions during their time in medical school. This trend will be further explored through future sessions. P4 has provided MS volunteer experiences encompassing teaching and leadership. P4 has offered increased volunteer slots, even online. References: Pipeline Research Drive 1. 10.4103/1357-6283.204219 2. 10.4103/1357-6283.99208

"Program Coordinator Professional Development: It is worth the effort!" (N. Workman, S. Sattovia)

Abstract: Research Question Will professional development (PD) for residency program coordinators (PC) improve role confidence? Background and Significance of Study PCs are important, skilled assets in residency programs, reflecting responsibility expansion per ACGME. Residency programs are dynamic, responsive healthcare delivery and educational entities. An adaptive, current PC workforce is needed. PCs are encouraged to attend program's professional society meetings, maintain society memberships for timely PD. PCs can pursue certification through the National Board for Certification of Training Administrators of GME (TAGME). TAGME certification is a national recognition for PCs ensuring comprehensive training, knowledge and skills through its process while promoting leadership. In many organizations, certification serves as a promotion qualifying factor. Certification maintenance requires PCs to continuously seek PD. However, time, cost and departmental support limit these best practice PD activities. SIU has 32 PCs with high turnover: 13-22%/year since 2016. No SIU PCs are TAGME certified. Study Design SIU Office of Graduate Medical Education (OGME) sought to provide PC PD to: • Facilitate learning responsibilities • Instill confidence • Create community • Encourage TAGME certification OGME created monthly PD sessions from needs expressed by PCs, OGME identified gaps and TAGME certification standards. Two session types: "Education" – for PCs with <3 years' experience, addressing common responsibilities, and "Focused" – for all PCs, addressing specific topics to instill confidence, preparation for TAGME certification. Findings Evaluations assessed confidence change per session. For all sessions (n=7), total of 21 questions were completed. Attendance = 7-23 attendees/session, average 17 attendees/session. Two to 6 questions were asked/session with pre- and post-session confidence perceptions assessed with Likert scale of 1-5 (5 = "Absolutely confident," 1 = "Not confident") for a total of 187 answers for each pre- and post-session confidence question. Pre-session: "Confident" to "Absolutely Confident" (score 3,4,5) 66% of the time; "Not Confident" to "Somewhat Confident" (score 1,2) 34% of the time. Post session: "Confident" to "Absolutely Confident" (score 3,4,5) 97% of the time; "Not Confident" to "Somewhat Confident" (score 1,2) 3% of the time. Conclusions (Discussion, Limitations, Future Studies, Conclusion) This program has increased confidence with PC responsibilities and can lead to TAGME certification. Potential, unmeasured, impacts include decreasing turnover, burnout, and providing PD that is not otherwise available. Ultimately, OGME seeks to have at least 50% of PCs TAGME certified by 2025 and decrease turnover rate to <15% by June 2021. References RupkeyC et al. It's a Professional Career! Program Administrator Education and Title Reclassification. Alliance for Academic Internal Medicine, Philadelphia, PA, April 2019. DuboisL et al. Program Coordinator Professional Development: Definition, Perception of Importance, Motivating Factors, and Barriers. The American Journal of Medicine. 132(1), January 2019. ThompsonB. Coordinators: Emphasize your value as a leader to change the perception of your role. HCPro Residency Program Alert. Jan 2019 17(1):12-15. EwenA et al. Program Administrator burnout in Graduate Medical Education: a Longitudinal Study. J Gen Intern Med 35(11):3248-53. RonnaB et al. A Survey of Neurosurgery Residency Program Coordinators: Their Roles, Responsibilities, and Perceived Value. Cureus 2019 Apr 14;11(4):e4457.

Poster Presentation 3

(Breakout Room 3)

"Assessing Physician Attitudes and Knowledge about Intimate Partner Violence: Utilizing Assessment Tools to Guide Future Directions" (M. Ahmed, N. Cudjo, S. Sharma, S Rebeiro, J. Hill-Jordan, & J. Hansen)

Abstract: RESEARCH STATEMENT Intimate Partner Violence (IPV) is a worldwide health and human rights issue. Research has demonstrated barriers to physicians identifying and providing services to victims of IPV, arising from either outdated training and/or lack of specific training. Given the higher rates of victimization via physical or sexual violence among patients with mental health conditions, the role of psychiatry and psychology professionals is even more important. It is essential to understand barriers to providing care. The purpose of this QI project is to assess gaps in knowledge and skill amongst clinical providers in the Department of Psychiatry and develop appropriate interventions for future guidance. BACKGROUND And SIGNIFICANCE IPV is defined as any form of actual or threatened harm by a partner. Per the Centers for Disease Control and Prevention, more than 27% of women and 11% of males experience IPV. Screening and referral policies can play a critical role in helping patients address the violence in their lives. However, IPV is routinely under diagnosed in all medical specialties, possibly due to lack of training and lack of continuing medical education opportunities. The findings from this needs assessment will help us identify infrastructure needed to support providers' efforts to help patients who are experiencing IPV. METHODOLOGY This is a cross-sectional, single-distribution design needs assessment survey completed by therapists, residents, and faculty. The online survey was distributed via SurveyMonkey. An informed consent email letter was attached to each potential survey respondent with contact information for the co-investigators. The survey questions were modified from a published survey in the American Journal of Preventive Medicine. This analysis included 34 residents, faculty, and therapists. 40% of the respondents were female and 46.6% were males; 3.3% identified as nonbinary. FINDINGS Survey results demonstrated that 16% of respondents had no training in IPV. 38.24% of respondents indicated they had experienced IPV themselves. When asked how to chart IPV in patients' Electronic Health Records, 61.29% of respondents stated they were not confident in documenting IPV. 42.86% of respondents reported not knowing Illinois' legal requirements for reporting IPV. 54.84% of respondents knew little about identifying perpetrators of IPV. 54.55% of respondents stated they were not aware of the specific institutional policies regarding screening and management of victims of IPV. 54.55% of respondents did not feel they had adequate knowledge of referral resources for adult IPV victims in the community. CONCLUSIONS Our needs assessment survey demonstrates that IPV is likely to be under diagnosed; even providers confident in their ability to diagnose IPV were unsure of how to document it appropriately and how to refer to community resources. The survey was conducted only in the Department of Psychiatry, and given the sensitive nature of IPV, respondents may have been reluctant to report abuse. This assessment led us to our ongoing implementation stage: Providing educational seminars by an expert in the field of IPV, providing easily-accessible reference materials such as pocket cards with reporting requirements and community resources, and codifying departmental policy that specifies how providers should respond after diagnosing IPV

"Assessing pre-clinical and USMLE Step 1 performance in medical students who utilize spaced repetition learning" (M. Turner, and D. Klamen)

Abstract: RESEARCH QUESTION Does the use of spaced repetition learning in medical school lead to a significant difference in pre-clinical exam performance when compared to those who utilize other study strategies? BACKGROUND With near daily advances in medicine, the amount of information that medical students need to learn is constantly growing. Considering most medical schools give their students only two years of pre-clinical basic science curriculum, new and innovative methods are required to efficiently learn and retain this growing body of knowledge. One such method that has become increasingly popular over the past few years is the use of spaced repetition learning through the electronic flashcard software application called "Anki." The impact of this on student performance has yet to be fully studied. STUDY DESIGN Students at Southern Illinois University School of Medicine take six basic science exams during their first year and five basic science exams during their second year, in addition to the USMLE Step 1 exam. A survey was distributed to all 1st, 2nd, 3rd, and 4th year medical students from the 2020-2021 academic year.

Scores for each exam the student has taken were requested. The survey also logged if the student used spaced repetition learning for each exam, average time per day used, and total number of days used. Finally, any other major methods of learning were documented. Robust t-test was used to detect differences in test score means between those that utilized spaced repetition learning with Anki and those that did not. Linear regression was used to determine the relationship between hours spent studying with Anki and test scores. FINDINGS Preliminary results include 45 surveys that have been completed by students and reviewed. Considering this early data, the use of Anki has not led to a statistically significant difference in mean test scores in our cohort. Only the 2nd year summative Cardiovascular/Respiratory/Renal exam has been found to have a higher mean score in the group that used space repetition learning with Anki (85.6% vs. 81.6% [+4.67%], $p=0.049$). Regarding the 1st year summative Cardiovascular/Respiratory/Renal exam, the mean test score was actually significantly less for those that utilized Anki as opposed to those that did not (72.7% vs. 78.7% [-8.25%], $p=0.047$). Furthermore, no significant difference has been found regarding USMLE Step 1 exam mean scores. We have not identified a strong association between hours spent reviewing with Anki and resultant test scores. CONCLUSION In our student cohort, spaced repetition learning with Anki has not led to a significant improvement in test scores when compared to those that do not use Anki. REFERENCES 1. Deng F, Gluckstein JA, Larsen DP. Student-directed retrieval practice is a predictor of medical licensing examination performance. Perspect Med Educ. 2015 Dec;4(6):308-313. doi: 10.1007/s40037-015-0220-x. Erratum in: Perspect Med Educ. 2016 Nov 18;: PMID: 26498443; PMCID: PMC4673073. 2. Lambers A, Talia AJ. Spaced Repetition Learning as a Tool for Orthopedic Surgical Education: A Prospective Cohort Study on a Training Examination. J Surg Educ. 2021 Jan-Feb;78(1):134-139. doi: 10.1016/j.jsurg.2020.07.002. Epub 2020 Jul 20. PMID: 32703740.

"Identifying Gaps in Third- and Fourth-Year Medical Student Rotations in Emergency Medicine Due to COVID-19" (S. Kim, R. Austin, R. Tennill, A. Fleming, M. Turner)

Abstract: QUESTION How did the SARS-CoV-2 (COVID-19) pandemic affect the quality of medical student education in the emergency department at Southern Illinois University School of Medicine? BACKGROUND The impact of the COVID-19 pandemic on medical education has yet to be fully investigated. Our project looked at differences in types of patients seen by medical students that may have resulted from clinical disruptions due to the COVID-19 pandemic. DESIGN Students rotating through the emergency department at the Southern Illinois University School of Medicine keep anonymous records of patients they are exposed to during their 4-week rotation. Third-year medical student (M3) and fourth-year sub-intern (M4) logbooks were obtained from the first three rotation blocks of the 2019-2020 (Y19) and 2020-2021 (Y20) academic school years. These logbooks were retrospectively reviewed to categorize chief complaints seen and procedures participated in. Robust t-test was used to detect differences in total and mean number of encounters by chief complaints and of procedures by type. FINDINGS 35 logbooks were reviewed (22 M3s, 13 M4s) for Y19 and 33 logbooks (18 M3s, 15 M4s) for Y20. Overall, all students encountered significantly less patients in Y20 compared to Y19 (-23.3%, $p<0.001$). Specifically, decreased numbers of Infectious and Musculoskeletal (MSK) (-28.3%, $p=0.013$; 22.2%, $p=0.018$); Gastrointestinal (GI), Genitourinary (GU), Head, Eyes, Ears, Nose, Throat (HEENT), and Trauma (-24.6%, -33.3%, -31.1%, -33.0%; $p<0.01$, respectively); and Respiratory complaints (-45.4%, $p<0.001$) were seen. Comparing classes between Y19 and Y20, M3s and M4s encountered similar levels of Cardiac, Infectious, MSK, and Neurological complaints. Both M3s and M4s encountered significantly less GU (-25.5%, $p=0.048$; -41.7%, $p=0.016$) and Trauma (-29.1%, $p=0.023$; -33.2%, $p=0.032$) complaints in Y20. M4s encountered significantly less GI complaints (-42.6%, $p<0.001$) in Y20 than M3s (-9.2%, $p=0.47$), whereas M3s encountered significantly less Psychiatric and HEENT complaints (-30.3%, $p=0.046$; -34.6%, $p=0.013$) than M4s (1.8%, -24.8%; $p>0.05$). Both M3s and M4s encountered significantly less Respiratory complaints in Y20, but less so for M4s (-65.3%, $p<0.001$) than for M3s (-27.9%; $p=0.017$). We did not see any significant differences in number of procedures in Y19 vs Y20. CONCLUSION The COVID-19 pandemic had a measured impact on our students' learning experience. It led to less patients seen overall with specific deficiencies in multiple chief complaint types relative to those seen by students in Y19. REFERENCES 1. Important Guidance for Medical Students on Clinical Rotations During the Coronavirus (COVID-19) Outbreak. Association of American Medical Colleges. 2020. Available at: https://www.aamc.org/news-insights/press-releases/important-guidance-medical-students-clinical-rotations-during-coronavirus-covid-19-outbreak. 2. Rose S. Medical Student Education in the Time of COVID-19. JAMA 2020;323(21):2131-2132. 3. Wong, RY. Medical Education During COVID-19: Lessons from a Pandemic. BCMJ 2020;62(5):170-171. 4. Wayne DB, Green M, Neilson EG. Medical education in the time of COVID-19. Science Advances 2020;6(31):eabc7110.

Poster Presentation 4

(Breakout Room 4)

"COVID-19 adaptations to remote teaching of medical gross anatomy and neuroanatomy: instructional material adjustments and learning outcomes" (M. Thurber, R. Clough, and D. Sarko)

Abstract: Traditional medical (year 1) gross anatomy and neuroanatomy laboratory learning occurs in-person and relies on cadaver-based dissection and three-dimensional laboratory practical exams. These experiences provide first year medical students with a visual-tactile learning apparatus, their first patient as a medical professional, and a small team-based environment. In March of 2020, the COVID-19 virus disrupted and prevented these traditional learning experiences such that in-person anatomy labs were immediately ceased to prevent the spread of COVID-19 and to maintain student and faculty health and safety. This created unique and unprecedented challenges for implementing effective – but remote – anatomy curricula. Anatomy lab adaptations were planned and executed with an emphasis on problem-based learning and quality medical education (while also maintaining a level of empathy for the students as they processed and coped with the global pandemic and national social injustices). The anatomy lab curriculum changes included faculty-developed cadaver-based prosections plus development of novel materials including lab pictorial reviews, lab tutorial videos, and weekly lab quizzes. These newly developed materials complemented traditional pre-lab resource session (lecture) recordings, lab study guides, and lab lists. Laboratory practical exams were delivered via software (Examsoft) using "tagged" two-dimensional pictures (cadaveric). Over the course of three units (1 year of curriculum), mean ± lab practical scores were comparable to mean scores from the previous year (pre-pandemic, in-person labs). Student surveys/feedback indicated that the newly developed remote learning tools were helpful and effective. However, students expressed that gaining a three-dimensional appreciation of anatomical relationships was very difficult. Critically, the intangible elements of visual-tactile learning, a "first patient" experience, and small team-based learning were absent in the remote curriculum. Though an effective and temporarily necessary stopgap measure to acquire anatomical knowledge, "remote anatomy" teaching materials proved to offer a limited experiential replacement for in-person cadaver-based learning and examination. Even so, certain elements of the newly developed materials may be used in the future to supplement and bolster in-person laboratory experiences, and to optimally facilitate problem-based learning.

"What is the impact of COVID-19 on nutrition for obese patients in the FCM Weight loss Clinic?" (M. Ajmeri, P. Sheth-Dutt, G. Luckey)

Abstract: Background : COVID-19, the illness caused by the novel coronavirus SARS-CoV-2, has been diagnosed in over 2 million individuals in the United States and has caused more than a hundred thousand death. (1) Older adults and people who have serious underlying medical conditions such as chronic lung disease, diabetes and severe obesity (BMI ≥ 40), are at even higher risk for severe illness related to COVID-19 (2). As a result of the pandemic, across the country, people have been asked to make drastic changes in their travel, work and social interactions. Routine medical care, previously mainly performed in person, shifted to "virtual" care involving phone visits, video visits, and internet or e-visits, and patients with COVID-19 risk factors and symptoms have been directed to different sources of care.(3) A sense of collective anxiety and uncertainty continues to affect the country as the crisis intensifies. In addition, the world pandemic has created challenges for individuals to maintain a healthy diet, as dietary changes may be driven by both fear and anxiety. (4) Therefore, it is important for individuals to make an effort to choose a healthy lifestyle, especially those who are at higher risk for severe illness. The Center for Family Medicine (CFM) started weight loss clinics (WLC) in 2017 in Springfield, 2018 in Quincy and 2019 in Carbondale in response to help patients that struggle with obesity and desire weight loss. Many of our patients in the WLC are at elevated risk for severe illness from COVID-19, and now have additional challenges to maintain a healthy lifestyle. Therefore, we would like to administer a COVID-19 nutrition survey to better understand the impact of the pandemic on WLC patient's nutrition, sleep, stress and exercise habits. Data from this survey will be used to inform the WLC about patient needs during the pandemic. Goals: To determine impact of pandemic on patient perception of eating healthier, weight loss, sleep, exercise, stress in addition to characterizing patient dietary and nutrition habits. Supporting Evidence/Baseline Data: Due to the novel nature of the COVID19, there is not much research done in this area Interventions/Improvements made: N/A Results: COVID-19 Nutrition Survey actively being collected so no results available yet. Once survey period has ended, all study variables

will be transferred from the COVID-19 Nutrition Survey and recorded in Excel. This study is a descriptive study, and therefore, all study variables will be summarized using percentages and frequencies for questions 3 through 20. A comparison between weight loss in January 2020 and current weight will be done using a paired t-test. Any comparisons made between categorical variables will be done using a chi-squared test of independence. Significance will be determined at the 0.05 level. Sustainability/Spread: Ongoing surveys with possible expansion into other FM clinics.

Award Ceremony   12:10-12:30

Award Speech by Dr. Kevin Dorsey

Recognizing Our 2020-2021 Outstanding Educators (Medical Students & Faculty)

Symposium Adjourns   12:30