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Together again: a community redefining residency education
Redéfinir la formation des résidents, ensemble

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084 A simulation-based curriculum to improve preparedness in the transition to Internal Medicine residency

R. McDonald; R. Sharma; L. Spatafora; Z. Khalid

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Introduction: The transition from undergraduate to postgraduate medical education poses significant stress for incoming residents, particularly during on-call shifts due to reduced supervision and heightened responsibility. This period has been associated with poorer patient outcomes, a phenomenon labelled the "July effect." Simulation provides a safe environment for trainees to learn a variety of skills with the most robust data supporting the mastery of procedures and advanced cardiovascular life support. However, there remains a paucity of data investigating the role of non-procedural simulation training during the transition to residency. The purpose of our project is to explore the role of simulation-based curricula in improving confidence and easing anxiety during independent on-call shifts in the transition to residency period.

Methods: A simulation curriculum was designed based on the results of a needs assessment completed by current staff, current residents, and incoming first year residents in Internal Medicine. A total of 35 incoming residents were then assigned to either the intervention or wait-list control group by a matched pairs design. The intervention group completed the simulation prior to residency start and the wait-list control group one month following. Immediately following each simulation, the groups participated in a debrief. A mixed-method approach with descriptive statistics and thematic analysis will be utilized to analyze key outcomes of anxiety, confidence, and satisfaction.

Conclusion: The simulation curriculum was well-received by residents. Preliminary analysis indicates that the simulation had a greater impact reducing stress and improving confidence levels when completed earlier in the transition to residency period. The results of our complete analysis, forthcoming, will further delineate the impact of the simulation on junior residents' perceptions and comfort levels regarding on-call shifts and what gaps have

Abstracts have been printed as they were submitted.

yet to be addressed. Ultimately, this study can aid in the design of future simulation curricula for residency programs during early residency.

085 A virtual simulation-based communication skills workshop for residents

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Introduction: Goals-of-care and advanced care planning conversations are associated with high-quality care for patients with serious illness. However, these important conversations often create distress among patients, clinicians, and healthcare teams. Moreover, although residents are frequently responsible for leading these conversations, they report feeling uncomfortable and unprepared, and desire more direct observation and feedback to master patient-centered communication skills.

Method: We developed a series of 3-hour virtual communication simulation-based workshops for second-year internal medicine (IM) residents (n = 81) facilitated by fellows and staff. Each workshop provided opportunities for virtual simulated practice of a specific set of patient-centered communication skills (e.g., listening skills, exploring illness understanding, responding to emotions). Prior to each workshop, residents completed preparatory reflection exercises and videos. During each workshop, we split residents into small groups in breakout rooms with 1-2 trained staff or fellow facilitators. In the first session, the facilitators played the role of the simulated patient, while in subsequent workshops, a standardized patient (SP) was used. Residents took turns engaging in simulated conversation with the SP, focusing on specific communication techniques taught, with time-outs to receive and apply immediate coaching and constructive feedback from facilitators. Facilitated debriefs with guided feedback and self- and group-reflection followed.

Conclusion: Resident evaluations were highly favourable. Residents strongly valued deliberate simulation-based practice of communication skills in emotionally complex situations, and perceived a strong benefit of direct observation and real-time feedback from coaches and peers, with the opportunity to apply coaching in real time. They described enhanced confidence and knowledge of patient-centered communication skills (e.g., formulating verbal reflections, the use of silence, diffusing tensions) and all desired additional virtual and in-person simulation-based practice. Simulation-based virtual workshops may

offer a novel way to enhance patient-centered communication skills.

086 An interactive smartphone application for trainees in radiation oncology: "The Rad Onc Handbook"

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Introduction: Radiation oncology texts and literature are often technically advanced and can be inaccessible to trainees. There is a dearth of clinically relevant materials for future physicians in any field. We developed a free, interactive smartphone application to prime trainees on the basics of radiation oncology to address this resource gap.

Method: We created and implemented an Apple iOS smartphone application with introductory content on radiation oncology for medical trainees. The beta version is free for download via the TestFlight application (https://testflight.apple.com/join/4A6qXjq2). 60 trainees have downloaded the application. The application incorporates topics relevant to radiation oncology including radiation physics, radiobiology, indications for radiation treatment, treatment side effects, clinical workflow, and the multidisciplinary nature of radiation therapy. Additionally, site-specific modules focus on the different tumour sites and their management. The application incorporates written content and podcast style audio lectures along with interactive features including quizzes and clinical cases on a variety of radiation oncology topics. Qualitative evaluation of the application is assessed through in-app feedback and surveys. Quantitative evaluation is ongoing and is facilitated through a 5-item questionnaire using a Likert scale evaluating app design, ease of use, relevance, learning, and perception of knowledge acquisition. Out of 30 initial survey participants, over 80% have selected "agree" or "strongly agree" to all questionnaire items.

Conclusion: A smartphone application on the fundamentals of radiation oncology has been created and is freely available. Content continues to be added in the form of advanced site-specific learning modules (i.e. breast and lung cancer) with more targeted objective evaluation of this content for learners. Initial evaluation results are encouraging and user feedback has been very positive.

087 Assessing the value: Evaluation of a pilot leadership program for family medicine residents

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Introduction: It is recognized that leadership training for family physicians should begin early career to foster the growth of more effective leaders throughout the health system. A pilot leadership development program has been implemented within the Family Medicine training program at one Ontario university based on the LEADS leadership capabilities framework. A comprehensive evaluation using mixed methods and aligned with the Kirkpatrick Model is informing the conceptualization, implementation and outcomes of the program which will impact future iterations and sustainability within the department beyond the pilot.

Methods: Formative evaluation during the conceptualization phase, included an environmental scan and a needs assessment via semi-structured interviews of faculty family physicians in leadership positions. The results guided the development of the pilot program and curriculum design, adapted to the needs of early career family physicians. Summative evaluation, taking place following implementation at the closure phase, will inform on education processes and outcomes by applying the four levels of Kirkpatrick training evaluation model. A mixed-methods approach is used for data collection. It includes: (1) module feedback and pre-and post-training questionnaires, and narrative final presentation video-recordings to determine the participants' satisfaction and improvement of their knowledge and skills; and (2) Semi-structured interviews of trained residents at the 6-, 12- and 18-month follow-up to identify program strengths and areas of improvement, behavioral changes in practices, and impact on organizational and system changes.

Conclusion: The pilot program is now at its implementation stage. We sought to conduct a comprehensive evaluation to determine the impact in increasing readiness for leadership and transition into leadership roles by trainees after the completion of the residency program, and the usefulness of knowledge and skills gained in managing organizational and system changes necessary to improve healthcare delivery.

088 CardioGuide: A scalable comprehensive Competency-based online Cardiology curriculum

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Introduction: COVID-19 accelerated the importance of online learning tools; many residents report reduced teaching, slowed curriculum development and a high clinical load. Deploying a self-directed online curriculum for internal medicine programs is generally resource intensive. We developed a comprehensive online learning and self-assessment platform that streamlines the process of curriculum delivery.

Methods: We created an online platform that delivers a structured curriculum to all residents rotating through Cardiology. While on rotation, residents receive reading material that was customized to their level of training and rotation, as well as level-appropriate self-assessment quizzes. The self-assessment quizzes compare in difficulty to the licensing exam, and deliver personalized feedback to each trainee, allowing them to focus their studying. Both the teaching content and assessment questions are created by a community of contributors guided by the Royal College Objectives of Training and rotation-specific objectives. Modules consist of escalating levels of difficulty to correspond to learners' competency level of training. Modules undergo a robust peer-review process to maintain quality. The platform also has an ongoing quality assurance process to ensure content remains updated and accurate to emerging evidence and guidelines. At our centre, we enrolled 209 residents over the course of 17 months, who have completed 1533 assessments to date. Feedback obtained showed residents perceived the curriculum to be somewhat difficult (3.7 on 5-point scale) and had appropriate time to complete each assessment. The comments were overall very positive, as most residents felt it improved their education. On average, 3 attempts were made before successful module completion. A detailed report identified systemic gaps in resident's knowledge, which were addressed in further teaching. Residents also received individualized reports on their own performance.

Conclusions: We created an online self-directed competency-based coordinated Cardiology curriculum to facilitate on-rotation learning. This curriculum can be easily scaled Canada-wide with few additional resources.

089 Creation of a hybrid video module and small group curriculum to address educational gaps in ethics, health policy, and professionalism for residents

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Introduction: Faculty in the Baylor College of Medicine (BCM) Center for Ethics and Health Policy identified that BCM residency programs were teaching ethics, health policy, and professionalism topics (ACGME requirement and essential CanMEDS components) with differing methods and varying success. We created a standardized curriculum to be implemented across residency programs - the Ethics, Policy, and Professionalism Program (EP3) – to improve the completeness, consistency, and quality of education in these areas.

Methods: Qualitative analysis of the ACGME milestones led to the development of a curriculum consisting of 5-6 core topics per academic year (AY) distributed over 3 years (2019-2022). Collaborating with EP3 leadership, a team of content experts developed 1) scripts for video modules (VM) and 2) facilitator guides for in-person engagement sessions (ES). VM were approximately 15 minutes and available to all BCM residents via an online learning system. ES were designed to be discussion-based, last <1 hour, and expand on material covered in the VM. Residency programs could choose which ES to offer each year and identified faculty within their own department to teach the session.

Conclusions: In the first 2 AY's all 21 BCM residency programs utilized the VM curriculum and 17 programs completed ES. The ES utilized the most were "Medical Decision Making" (12), "Healthcare Economics" (11), "Effective Communication" (9) and "Professionalism in Practice" (9). The least used were "Pediatrics" (1) and "Impaired and Disruptive physicians" (4). Data collection for the current AY is ongoing. The liberal utilization of both the VM and ES demonstrated a need in this area which likely exists in other programs. Additional patterns in uptake of VM and ES by the residency programs and evaluation data will be described. Our hybrid approach allowed programs flexibility in administering this education and the ability to build on introduced concepts through specialty-specific discussion.

090 Design of a longitudinal PGY 1 training experience for diagnostic radiology residents

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Introduction: Diagnostic Radiology in Canada transitions to Competence by Design in July 2022. The traditional PGY1 year with 11 off-service rotations followed by 2 imaging rotations has been replaced by Transition to Discipline (including 3 off-service EPAs and 3 imaging-specific EPAs) and the beginning of Foundations. We sought to design an introductory radiology experience that would both fulfill CBD goals and meet holistic needs of junior residents.

Methods: A needs assessment was conducted through two focus groups (residents and education leadership), an open call to residents for written feedback and an analysis of the knowledge components within the early residency EPAs and milestones. Four themes emerged: basic imaging knowledge (e.g., technical skills, imaging interpretation, contrast reaction treatment), introduction to affiliated topics (e.g., research, physics, informatics), hidden curriculum (e.g., culture and logistics of the department, career paths, accessing collaboration) and wellness (e.g., mitigating isolation in PGY1).

Best practices were reviewed from the literature. Our focus groups concluded that a series of half-day experiences during the first 11 blocks of residency, rather than a single 4-week block during the PGY1 year, was better suited to meet objectives. Optimal teaching methods required tailoring to the specific learning objectives. These included observation (e.g., of technologists), supervised apprenticing (reporting cases), self-directed small group quizzes (e.g., radiology anatomy), "lunch with purpose" (mentoring), case-based learning (e.g., physics), simulation (e.g., contrast reaction, sonography), and didactic small group sessions. The curriculum was drafted and revised after additional feedback.

Conclusions: CBD allows an opportunity to reconfigure Diagnostic Radiology residency. We designed a longitudinal year-long curriculum of half-day training experiences for PGY1 Diagnostic Radiology residents to help achieve early residency EPAs, build community within the residency group, improve resident integration within the department, and support resident wellness. The program will be assessed during and after its first year of implementation

091 Developing a national online training curriculum for pain management and substance use disorder for postgraduate medical education

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Introduction: Opioid overdoses and surging death rates are a national public health crisis for Canada. In January 2021, the Association of the Faculties of Medicine of Canada (AFMC), launched an online pain management and opioid stewardship curriculum for integration into Canada's 17 medical schools. To ground this initiative within the medical education continuum, the AFMC is extending this curriculum into postgraduate medical education (PGME) and continuing professional development (CPD). In this presentation, we share our process of curriculum development for PGME, including guiding principles and considerations from the creation of this expanded educational program.

Method: The topics for the AFMC PGME pain management and substance use disorder curriculum were informed by a needs assessment conducted in September 2020, and in consultation with both clinical and lived experience subject matter experts. The six topics included in the curriculum are 1) Building Relationships, 2) Opioid Prescribing, Deprescribing, and Management, 3) Medical Addiction Treatment, 4) Management of Chronic Pain in Diverse Patient Populations, 5) Cancer-Related Pain, and 6) Advanced Knowledge of Pain Management. Curriculum markers within the spiral curriculum are mapped to learning objectives, CanMEDS roles and competencies, and entrustable professional activities (EPAs).

Conclusion: This innovative curriculum offers a model in pain and substance use management that allows PGME programs to augment their existing offerings by providing consistent, evidence-informed information on this topic.

092 Development and validation of the family medicine obstetrics assessment tool

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Introduction: Timely and informative assessments identify gaps and strengths for residents and help residency training programs in identifying residents in difficulty. In our program, we had difficulties in extracting useful data from the generic assessment tools used in family medicine obstetrics (FMOB), and FMOB clinical teachers identified challenges in providing assessment. In alignment with the movement toward the systematic development and validation of evidence-based assessment tools, we responded to this need by designing a new FMOB context-specific assessment form. Included in this assessment tool is a user-friendly FMOB rubric that allows clinical teachers to easily document their observations and, simultaneously, understand how their resident's performance compares with the program's expectations of competency. In this study, 1) we describe the evidence-guided process taken to develop a context-specific workplace-based assessment (WBA) tool, and 2) describe the collection of preliminary validity evidence for the tool.

Methods: We used Messick's unified concept to guide a mixed methods approach to collection of validity evidence across multiple facets. Surveys to FMOB clinical teachers (N=30) and residents (N=40) will capture perceptions of utility, relevance, and alignment of the tool for the FMOB context. Descriptive statistics will be used to analyze all new submitted assessment forms and compare them to the previous assessment form for: timeliness of completion, amount of written commentary provided, consistency in how teachers complete the form, and differentiation between residents demonstrating competence and those in difficulty.

Conclusion: Following a defined process for design of a context-specific WBA tool for FMOB resulted in a useful and user-friendly tool that answered a need for teachers in a specific context. Preliminary validity evidence supports content and substantive validity, suggesting that the design process worked as intended in meeting users' expressed needs, and could be applied in other clinical contexts. Further validity evidence collection is ongoing.

093 Faculty as facilitators in assisting a struggling learner in creating an effective learning plan

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An individual learning plan (ILP) is an important tool, specifically necessary in residency training programs for learners to improve specialty requirements and competencies needed to progress for graduation. While the expectation is for the learner to create their own ILP, the ILP content guided by a facilitator (faculty member, advisor, associate program director, or program director) can be more effective to reach a desired goal and emphasize for the learner the importance of ILPs. In the current literature, there are numerous interventions for educational remediation targeting the learner. But previous work has demonstrated that both faculty and the learners in internal medicine residency training programs need further training in creating learning goals and individual educational development plans. ILPs created over the past two years (20) at Medstar Health Internal Medicine Residency Program in Baltimore were reviewed. ILPs did not conform to any specific learning goals or have consistent structure. A dedicated faculty development workshop on skills and reflection using ISMART tool was done, to allow our faculty to have a more structured approach in facilitating our learners in creating effective learning plans. Likert scale questionnaire was used for evaluation of the workshop illustrating knowledge was gained by all participants, usefulness using I-SMART goals in creating effective ILPs, and overall better understanding faculty advisor's role with their mentees. Currently underway is to evaluate 30 ILPs now created this academic year using a rubric to evaluate if ISMART goals were utilized and assessing outcomes achieved for current academic year. Lastly, we plan to survey both our learners and faculty advisors to assess the usefulness of faculty engagement and expand education on I-SMART to help learners with achieving their milestones in residency. Future education in utilizing I-SMART for creating ILPS to be presented to all 150 residents in the program.

094 Flipped classroom blended teaching in psychiatry using a virtual reality simulation scenario- making the most of VRsim!

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Introduction: Since 2020, Foundation doctors at the East of England (EoE) deanery have had access to the Foundation Bridge, a depository of online courses and recordings of regional training days. They also have access to a bank of virtual reality simulation scenarios (VRsim) by Oxford medical simulation (OMS) with a self-debrief which they are encouraged to repeat for mastery or participate in a synchronous facilitated debrief. There is potential to facilitate debriefing sessions based on asynchronous virtual simulation.

Methods: Asynchronous courses on dementia and drug addiction were developed and posted on Foundation Bridge and blended flipped classroom teaching sessions were designed and piloted in January 2022 at Basildon hospital, where 100% of the 30FY1 and 30FY2 trainees had completed the two mandatory VRsim scenarios (dementia with challenging behaviour and addiction to pain medication). Using MSTeams, after a facilitated debrief and a teaching video which paused at key moments, the foundation doctors did small group work using padlet and breakout rooms. They thought about mental capacity, differential diagnoses and risk assessment. The foundation doctors were given a short questionnaire before and after the teaching session. They were also invited to repeat the mandatory VRsim scenarios. The hypothesis is that the scores before and after of those who attended the teaching session would be higher than those of those who didn't.

Conclusion: The active learning style kept the doctors engaged. The learning objectives of the teaching session overlapped with those of the VRsim and those of the foundation curriculum and stretched the doctors' zone of proximal development. In 2022, the opportunities to teach psychiatry remotely were limited. By using the asynchronous courses' depository and VRsim as preparatory materials, the facilitated teaching session was used as flipped classroom for problem-solving, group discussion and reflection on common liaison psychiatry scenarios.

095 Get FIT! Development and Implementation of the Feedback Improvement Tool (FIT) to enhance feedback delivery practices in residency training

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Introduction: One of the cornerstones of CBD is feedback; thus, it is imperative that teachers possess the requisite skills to deliver high-quality feedback. However, educators' intense schedules sometimes limit their opportunities to attend faculty development sessions to acquire and refine these skills. There is a definitive need for resources that balance the educational foundations of feedback with simple, practical tools that may be implemented across all residency programs. We responded to this need by designing and implementing a strategy that moves beyond formulaic "how-to" models of feedback delivery by articulating the educational theories necessary, alongside practical resources, to enhance feedback practices.

Method: We implemented a multi-step strategy beginning by developing a competency framework that articulates the most salient attributes of teachers possessing feedback-delivery skills. The multidimensional framework was the basis for the development of a resource kit (Feedback Improvement Tool-FIT) for residency program directors. FIT comprised: i) a series of videos representing situations in which teachers delivered feedback (of varying quality) to residents after a performance; and ii) an educational resource explaining the most relevant aspects of educational theories related to effective feedback delivery (i.e., Self-Regulation Theory; Mindsets; Goal Orientation) using a simple and engaging format. The application of these resources was illustrated to program directors (PDs) during a retreat. We used a train-the-trainer model during this launch to build capacity with the PDs to maximize their understanding of FIT, and to teach them how to use it with their faculty.

Conclusions: Evaluation data from the retreat illustrated that PDs, across residency programs, were highly satisfied with the content of FIT and perceived it to be greatly beneficial as a resource to enhance their faculty's feedback competence. This evidence further supports the importance of using an approach that integrates educational theory with practical, concrete and actionable strategies to improve feedback.

096 Is selection working? An examination of the relationship between selection and outcome in a family medicine residency program

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Introduction: Selection of the best fit candidates into any individual residency training program can be a challenging process, particularly when the available evidence to inform the process is mostly limited to elements of the standardized Canadian Residency Match Service (CaRMS) application package and interviews with candidates. Getting selection right is crucial: accepting residents who are a good fit benefits patients and communities as well as residents given that those who are a poor fit can experience serious negative consequences. Over the last 7 years, our program made systematic changes to our selection process guided by principles of fairness, transparency, and diversity. We are now engaged in an evaluation project to determine if our selection methods are effective. The objective of this study is to examine the relationship between selection elements (the CaRMS rank order list, file score, and interview score) and resident success or difficulty during training.

Methods: In this non-randomized, longitudinal secondary data analysis study, we extracted data from 580 archived files for residents accepted into the University of Alberta Family Medicine Program in the first round of CaRMS between 2014 and 2020. We are examining the relationship between selection elements (file review score, interview score, rank order list position) and resident status in the program ("encountered difficulty" or "successful") based on an algorithm of use of program resources and length of time in program.

Conclusion: We will identify whether specific elements of our selection process are associated with whether a resident encounters difficulty during training. We hypothesize that residents who were lowest in file score and/or position on the rank order list will be more likely to encounter difficulty during training. The findings from this project will provide a better understanding of what is working in selection, and what should be reviewed or revised.

097 Learning in the Dark: An evidence-based podcast fostering medical expert and communicator competencies in junior radiology trainees

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Introduction: Podcasting is an audio and video medium used to make information accessible for a variety of learners. Based on a review of the literature, we developed one unique audio radiology podcast for junior residents preparing for independent call. Radiology podcasts offer listeners a novel way to improve medical expert and communicator competencies by presenting radiological terminology utilized in both written dictations and verbal conversations with referring clinicians. An educational radiology podcast focused on an approach to common on-call pathologies has yet to be produced or evaluated. Learning in the Dark, a podcast and supplemental website, aims to provide a solution.

Methods: Learning in the Dark is a podcast focused on teaching high-yield pathologies commonly encountered by radiology residents during scheduled call duties. Topics were selected based on the Canadian Association of Radiologists (CAR) Transition to Radiology Residency document. Learning in the Dark is hosted in a conversational manner between two radiology residents. Each episode begins with a guided approach to analyze a specific radiolologic pathology, and is subsequently organized by learning objectives, categorized into the classic 4D's of radiology: Detect, Describe, Differential, and Decision. This evidence-based approach allows for an organized progression depicting pathophysiology, radiographic imaging findings, differential considerations and clinical management decisions. The podcast is supplemented with a website where anonymized cases and show notes are made available correlating to each episode. Podcast usefulness will be assessed by: 1.) Podcasting metrics generated from audio hosting platform data and 2.) An embedded survey available on the website assessing listener demographics, experience and educational outcomes.

Conclusion: Learning in the Dark, an educational radiology podcast offers an asynchronous and effective way of teaching junior residents about common on-call pathologies. Preliminary results revealed positive subjective feedback and greater than 100 listeners. This innovative approach to radiology education requires ongoing assessment.

098 Maintaining wellness in the face of death and dying: A hematology residency wellness module

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Abstract: Hematology residents spend a large proportion of their training diagnosing and treating life-threatening blood cancers. Psycho-oncology research has identified that oncologists feel ill-equipped to deal with frequent patient deaths and suggest the development of residency curriculum in this space is an important goal (Granek et al., 2012 & 2017). The promotion of safety and wellness throughout the learning environment is encouraged in residency education (RCPSC, 2019, p 19). Specifically, as a professional, a hematologist should: "recognize the impact of caring for a dying patient" (RCPSC 2015, p.13). In response, a hematology specific wellness module has been developed.

Method: The learning theories applied to this module include humanistic (learner centered) and cognitive learning theory (use of reflective thinking and focus of learning is on the mental processes rather than behaviours) (Khalil & Eklhider 2016). In terms of content the residents are assigned three articles to read two weeks in advance. They receive a link to a blog post and podcast that will explain the thought, question, epiphany (TQE) method of discussion-based learning (see Cult of pedagogy, 2018 for more). They submit their TQE's on the readings along with a reflective post on an experience around a patient death prior to the session. The half day module is discussion based around the articles, their TQE's and reflections as comfortable.

Conclusion: This half day was piloted locally, with excellent informal feedback. There was interest in patient death in the outpatient setting where they recognized clear communication at end of life can be challenging but beneficial in closure for both the physician and family. Going forward, gathering national data to detail the experiences of hematology trainees will allow residency program directors to understand this issue and help develop a curriculum that may fill a wellness gap in hematology-oncology training programs.

099 Optimizing faculty teaching evaluation in Diagnostic Radiology: Toward practical, specific, and effective feedback

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Introduction: Faculty evaluation by residents is emphasized by the Royal College, including in the scholar and professional CanMEDS roles. Unfortunately, many programs note difficulty obtaining quality feedback. Teaching evaluations in our department suffered from low response rates and poor utility. We sought to explore the limitations of the current process and to redesign it to recognize teaching activity specific to Diagnostic Radiology.

Methods: The current evaluation process was assessed through feedback obtained from two focus groups (residents and members of the department education council) and interviews with the department chair. Several themes emerged. Residents noted evaluation fatigue, insufficient time to complete evaluations, and concern evaluation was ineffectual. The department chair noted the number and quality of evaluations was insufficient to provide faculty support or to recognize excellence. Faculty expressed underappreciation related to low scores and/or low response rate and noted poor utility of feedback. The evaluation form was redesigned based on focus group discussion and literature review of best practices. A department council including resident and faculty representatives reiteratively revised the form. The new form included imaging-specific teaching activity, narrative scales, and an explanatory preamble. Residents were provided protected time to complete evaluations. The new process was trialed with 19 residents evaluating 22 faculty. Mixed methods were used to assess the intervention including quantity of responses and qualitative review of changes from the perspective of the residents, faculty, and departmental leadership.

Conclusions: Quality and quantity of faculty teaching evaluations improved with discipline-specific assessment, narrative scales, and protected time for evaluation. Overall response rate increased from 69% to 91% with individual faculty receiving up to 3.6 times the number of responses. Initial feedback suggested further changes that will be incorporated in the future. The form was designed for use in any diagnostic imaging program, but further study is needed to confirm generalizability.

100 Pilot project: The launch of supplemental POCUS EPAs in the core IM residency program at Dalhousie University

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Introduction: Point-of-care ultrasound (POCUS) has been successfully incorporated into multiple subspecialty training programs across the country; however, no standardized formal curriculum exists for core Internal Medicine (IM). In 2019, the CIMUS group published 22 consensus-based educational indicators as a framework to guide and monitor IM POCUS curriculum development efforts. Based on these indicators, areas for improvement in our own curriculum include a more formalized image review and assessment process, which is necessary to ensure a high-quality educational experience.

Methods: Given the recent implementation of Competency by Design (CBD), three supplemental POCUS Entrustable Professional Activities (EPAs) were drafted and launched as a pilot project at Dalhousie University for core IM residents in July 2020. EPA S1 was designed to ensure residents comprehend the basics of machine settings, transducers, and image optimization. EPA S2 and S3 were designed to assess both image acquisition and interpretation for the respiratory and cardiovascular POCUS exams. The milestones included in the EPAs were designed to encompass several CanMEDS roles. Target numbers of scans were decided upon by the POCUS Committee.

Conclusion: A total of 61 EPAs were completed from July 1, 2020, to December 31, 2021, with 16, 13 and 32 respectively for EPA S1, S2 and S3. The uptake of these POCUS EPAs in the first 18 months has encouraged increased assessment and feedback, which is necessary to an effective POCUS curriculum. Moving forward, successful completion of EPAs could perhaps be used to guide when residents have achieved the necessary skills to acquire and interpret images more independently. The implementation of this pilot project will be assessed through Kirkpatrick's model of evaluation and future adjustments to the EPAs and target number of scans will be necessary. We hope this can serve as a model for other IM programs, especially with the recent transition to CBD.

101 Promoting skills for lifelong learning: A pilot internal medicine admitting rotation with faculty-guided, structured reflection using chart stimulated recall

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Introduction: Practice-Based Learning and Improvement (PBLI) is an ACGME core competency as is Lifelong learning a sub-competency of Scholar in CanMEDS. This curricular innovation sought to address the existing gaps of how we teach PBLI in the inpatient hospital setting beyond standard faculty coaching. Literature have described chart-stimulated recall for clinical reasoning and remediation. This curricular innovation combined chart-stimulated recall with an evening admitting shift using a theoretical framework grounded in experiential learning theory and deliberative practice to teach lifelong learning skills to internal medicine residents. Objectives included teaching a structured approach to patient care reflection for lifelong learning skills, teaching clinical reasoning through chart-stimulated recall, and promoting the value of reflection among resident learners.

Methods: Internal medicine residents in their second and third year of training were assigned to an admitting shift, during which they admitted up to five patients daily. Residents were paired with faculty who supervised admissions and facilitated a chart-stimulated, structured reflection tool. This tool included questions regarding expected vs. actual hospital course, changes in clinical status, and subsequent changes in working diagnosis among others. Residents were surveyed pre- and post-rotation with a mixed-method design measuring learner responses including questions from a previously published survey on reflection in clinical training. Data was analyzed using paired t-test and theme analysis of open-ended comments by faculty review.

Conclusion: Evaluations noted high satisfaction with the rotation and reflection activity. Residents self-reported improvement in skills for structured reflection on patient care. Themes in resident comments included positively regarding the "practice" of admitting patients and "reflection" activity with faculty. These narrative comments suggest that the rotation was successful in applying theoretical frameworks of experiential learning and deliberative practice. Future directions include use of additional assessments to evaluate whether learned skills were transferrable to other rotations and settings.

102 Quantifying differences between preliminary diagnostic radiology resident reports and finalized staff reports with semi-supervised machine learning: A preliminary exploration

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Introduction: In diagnostic radiology residency training programs, images are initially interpreted and reported by residents, and these preliminary reports are then reviewed and finalized by the staff radiologist. This system creates an opportunity to engage trainees with the CanMEDS roles of collaborator and medical expert. When simplified, this review process identifies discrepancies between the resident and staff interpretation. This project aims to develop a semi-supervised natural language processing (NLP) based machine learning model to compare the preliminary resident reports to the finalized staff reports and identify discrepancies.

Methods: We collected 41 485 resident and staff reports from May 5 - November 5, 2021. Diagnostic imaging reports include computed tomography, magnetic resonance imaging, radiograph, and ultrasound. A single reviewer then labelled these reports. Reports were labelled "y" when an acute finding was identified, e.g., acute fracture, or "n" when no findings or no acute findings were identified, e.g., osteoarthritis. This process reduces all reports to a single letter code, which enables the dataset to be fitted with an NLP model known as a semi-supervised Latent Dirichlet Allocation (ssLDA) model. We are actively analyzing the coded data within the NLP model.

Conclusion: We believe this machine learning model could be used to provide specific feedback to residents regarding report writing and increase efficiency in training and evaluation. With this project serving as a proof of concept, the model could then be applied to other medical education settings where the initial evaluation of a patient is done by a resident or learner, and their results or decisions are then reviewed by the staff (e.g., generating a differential diagnosis in the Emergency Department). A major limitation is that the labelling is a binary classifier; future research should include updating the model to identify specific acute findings in the reports.

103 Scaling and spreading Quality Improvement education in the face of scarcity: Doing more with less

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Introduction: Despite CanMEDS 2015's explicit emphasis on quality improvement (QI) science, residency programs typically struggle to effectively deliver this required teaching for two reasons: insufficient faculty with expertise to teach QI methodology, and limited faculty mentorship to support experiential curricula and facilitate project success. Existing success in QI training at larger centres typically hinges on the existence of numerous faculty possessing advanced QI training with capacity to teach and support resident projects. Without this academic QI infrastructure, we modified an approach for centres with less mature QI infrastructures.

Method: Over a period of eight academic cycles, we utilized Plan-Do-Study-Act cycles (a QI method from the Model for Improvement) to adapt the University of Toronto co-learning quality improvement curriculum to our centre. During each cycle, we identified operational gaps and corresponding interventions (plan), executed the interventions (do), evaluated the results (study), and determined how to evolve the intervention (act). Over the development period, our curriculum has evolved into one that differs significantly from the original, relying on fewer resources. Key distinctions include asynchronous content delivery utilizing a low-cost online learning management system, the utilization of micro-lecture video format, and the use of free virtual collaboration platforms. Human resource requirements have been minimal, and include one curriculum lead (a clinician with Masters-level QI training), one faculty lead per participating residency program (without advanced QI training) and a part-time curriculum administrator. Recent cycles have added an educationalist, as well as a Masters-trained quality improvement advisor to enhance educational rigor and scalability, respectively.

Conclusion: Key evolutions in the successful co-learning curriculum have allowed the program to be successfully adapted to an academic centre with a less-advanced QI infrastructure. This model is adaptable and scalable to other centres.

104 The development of a national simulation curriculum for pediatric respirology

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Introduction: The Pediatric Respirology subspecialty training programs launched Competence by Design in July 2021. Certain Entrustable Professional Activities (EPAs) were challenging to achieve within the expected stage of training due to limitations in clinical exposure. In the pediatric patient population, there are marked seasonal variations in particular case presentations, such as viral-induced asthma exacerbations. Other presentations occur unpredictably and infrequently (for example, tracheostomy obstruction). For these reasons, the opportunity for assessment via simulation was determined to be an essential adjunct to clinical exposure.

Method: A national working group of program directors and simulation leaders identified seven EPAs as high priority for the development of simulation modules. These focused on the management of respiratory emergencies, performance of respiratory procedures, and on communication skills. Case scenarios were developed for each EPA, resulting in 20 case-based simulation modules to augment clinical exposure throughout the stages of training. These include common presentations in the patient population (for example, a patient with cystic fibrosis who develops respiratory distress), but also less common presentations (such as a bronchoscopy complicated by hemorrhage). Simulation modules were developed with recognition of variation in local practices and the range of resources available at different training centres, with the opportunity to modify the scenarios, and both high-fidelity and low-fidelity options considered. The simulation modules are in the process of implementation in Pediatric Respirology training programs nationally. We are currently assessing uptake in the various programs and will review the outcomes of EPAs assessed using the simulation modules.

Conclusion: Case scenarios reviewed through simulation provide a viable opportunity for the assessment of EPAs, in addition to those experiences gained through clinical exposure. The national development of simulation

modules can be applied to other training programs seeking to augment their EPA assessment strategies via simulation and is particularly beneficial for smaller training programs.

105 The Systematic Online Academic Resource (SOAR): Review as a novel methodology to curate free and open access medical education resources

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Introduction: The Free Open Access Medical Education (FOAM) movement has resulted in an explosion of open access online educational resources. High-quality FOAM resources are difficult to aggregate; they are often decentralized and of variable quality. A Systematic Online Academic Resource (SOAR) review is a novel methodology to curate and filter FOAM resources within a domain. The resulting collection can be integrated into existing or novel curricula. In this abstract, we report the use of SOAR methodology on the topic of perioperative anticoagulation management.

Method: We conducted a search of 3 search engines (FOAMSearch.net, blogsearchengine.org, listennotes.com) and the Top 100 educational websites on a FOAM impact index (Social Media Index). A librarian specializing in "grey literature" helped identify search terms with MeSH headers and colloquial synonyms. All freely accessible educational resources on perioperative anticoagulation management were included. We used the revised METRIQ score to assess the quality of resources and classified them by topic area and by the Four-Component Instructional Design (4C/ID) model.

Results: Search results were extracted with their URL and resource type. 5453 resources were screened over 10 months. 312 blog posts, 70 podcasts and 112 point-of-care articles were included for data abstraction. The majority of resources were "supportive information" and "just-in-time information" according to the 4C/ID model, with very few "part-task practice" and "learning tasks".

Conclusion: Using perioperative anticoagulation management as an example, we demonstrate that SOAR reviews can enable educators to identify relevant, high-quality online resources on specific clinical topics. By classifying resources using an instructional design framework, SOAR reviews can help educators determine where gaps exist and inform the design of novel curricula. Future directions will be to develop generic data collection forms that can be adapted to SOAR reviews of other topics, and to develop methods to keep SOAR reviews current amidst new FOAM publications.

106 Pan-Canadian medical student demographic survey: Implications for residency education

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Introduction: The criteria for the selection of future medical students and therefore residents is important for equity, diversity and inclusion as well as healthcare. Demographic data is crucial for future physician workforce planning. We sought to determine a demographic profile of Canadian medical students in 2021 across incoming, current and outgoing cohorts.

Methods: This cross-sectional study surveyed medical students across 17 Canadian medical schools. The survey was mostly adapted from a previous survey published nearly 20 years ago (Dhalla et al., 2002) and the 2016 long form census survey conducted by Statistics Canada. Surveys in both English and French were sent using the Qualtrics survey platform. Recruitment took place from April to December 2021. We conducted a descriptive analysis of the data.

Results: We received N= 2805 survey responses of which n= 2326 were English and n = 479 were French. Regarding gender identity, 30% identified as a man whereas 67% identified as a woman. The majority of learners were single and never married (88%) nor had children (93%). Fifty-eight percent identified as white and only 3% identified as black. A quarter of participants reported their parental household in the 12 months preceding their high school graduation as $200,000 or more before taxes and deductions. Nearly half (53%) of medical students were accepted into medical student upon their first application, of which 60% identified as white. The majority (85%) of medical students reported that debt after medical training would not be a factor in where they choose to practice upon residency.

Conclusion: While our findings may not represent the population of medical students in Canada, it provides a demographic profile that warrants further investigation into learner selection into medical school and residency training programs. It also provides an opportunity for institutions to evaluate their selections processes against social accountability benchmarks.

107 Transition to best practices in residency selection at Université de Montréal: How clear are program descriptions on the Canadian residency matching system (CaRMS) website?

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Introduction: Each year, medical students carefully prepare their residency programs application by browsing program descriptions on the CaRMS website. In order to continuously improve the practices in selection of candidates for postgraduate medical education, this study seeks to assess the quality of program descriptions on the online platform.

Methods: An analysis grid was created based on best practices in residency selection and a local consensus. Using this grid, two assessors independently rated the quality of the 24 R1 entry program descriptions of Université de Montréal presented on the CaRMS platform. An estimation of compliance rate with best practices was then carried out.

Results: Overall, 90% of programs clearly defined the objectives of their selection process. Admissions committees were clearly presented for 50% of the programs and included individuals of various profiles, but more rarely from community-based hospitals. The "do not rank" criteria and the use of external data for the ranking process were well-specified (92% and 88%, respectively). Elements assessed in the candidate's file were well-described, but only 17% of programs defined their weighting. Nearly 80% of programs did not detail the interview process and the use of standardized vignettes or grids was rarely specified. One in three programs explicitly presented the method used to generate the ranking list.

Conclusion: There are areas for improvement in program descriptions, particularly regarding the disclosure of the ranking method, and the weighting assigned to the elements in the candidates' files. These observations will help create tools for programs to optimize the information transmitted on the CaRMS platform.

108 Delivery of high stakes Orthopaedic surgery exit examinations during the Covid-19 pandemic and the candidates' perspective

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Introduction: The Covid-19 pandemic created major disruptions in surgical training and assessment. For the Australian and New Zealand Orthopaedic Surgery exit examinations (FEX) in 2020 and 2021, it was necessary to make several modifications to both the delivery and format of the written and viva-voce components. Clinical patients were replaced with video-based scenarios for two clinical examination sections of the exam. Australian candidates in these high stakes assessments were asked to participate in a survey about their challenges, adaptations and experiences before, during and after the examinations were explored.

Methods: An online survey was developed and distributed to the 119 candidates that sat the FEX in 2020 and mid-2021. The 26-question survey utilised a mixed methods research design, incorporating both dichotomous and semantic differential scales. In addition, 5 narrative response questions were added to explore specific areas.

Results: Sixty-one (51%) candidates completed the survey. Over 60% rated their study preparation, home and social life as highly affected by the pandemic. Most either reduced or stopped practicing clinical examination skills. The majority felt that mask-wearing and social distancing during the exam did not affect their performance. The novel clinical video segments were well-received, but 88.5% of respondents believed that they were not as difficult as examining real patients.

Conclusions: The Pandemic necessitated change to the format of the exam and increased the difficulties of those sitting it. Changes in format changed study direction. The exams were delivered with minimal technical problems. Pass rates appeared similar to previous years. The new clinical video format provided a reasonable alternative to 'live' clinical patients and will be recommended to become a permanent addition to, but not fully replace, traditional patient-based vivas.

109 Resident and preceptor perceptions of assessment: A qualitative study

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Introduction: Workplace-based assessments (WBA) are used to document formative feedback and inform summative assessment for residents. Though one WBA per half day of learning is suggested, there is a dearth of literature to inform the optimum number to support learning. This study explores perceptions of Family Medicine (FM) residents and preceptors on the optimal quantity and quality of WBA for learning.

Methods: Qualitative study consisting of interviews with preceptors and focus groups with residents at an FM residency program in Ontario. Data analyzed using thematic analysis through open coding in NVivo.

Results: Ten preceptors and 7 residents participated. Five themes emerged: Purpose of WBA, current and optimal frequency, factors affecting frequency, content, and perceptions of WBA. Preceptors and residents felt the purpose of WBA was to provide feedback, document, or fulfill departmental requirements. Half of preceptors reported meeting the suggested frequency, however most residents reported receiving fewer than this, particularly in second year. Some preceptors felt one WBA per half day is optimal for resident learning, though others, and most residents, felt this is too frequent. Logistics, resident performance and preceptor habits/beliefs influenced frequency of WBA. Residents and preceptors agreed the most valuable WBA content is specific or new information. Residents found WBA with vague or positive feedback least valuable. Residents and preceptors agreed that feeling pressure to meet the quota contributed to dissatisfaction.

Conclusions: Results of this study will inform best practice for resident assessment and help to determine the optimal frequency of workplace-based assessment in FM residency programs.

110 An evaluation of transition to foundations curriculum for first year pediatric residents

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Introduction: Foundations of Discipline is the second stage of Competency Based Medical Education for pediatric residency programs in Canada. A full-day Transition to Foundations curriculum was developed using Kern's six step guide. This curriculum included didactic and simulation components, to prepare residents for increased roles and responsibilities, particularly during pediatric night float. The purpose of this study is to evaluate which components of the curriculum were useful for residents.

Methods: The curriculum was piloted to 11 first year pediatric residents at McMaster University in September 2021 prior to Foundations of Discipline and night float rotations. Descriptive statistics of data from pre and post-curriculum surveys was used to evaluate resident perception of the curriculum.

Results: Resident response rate was 11/11 for pre- and 8/11 for post-curriculum surveys. Resident comfort with answering pages (80% pre-, 100% post) and initial assessment of patients (72.7% pre-, 100% post) improved. Comfort with acute patient presentations improved after virtual simulations, including seizure management (50% pre-, 100% post), respiratory distress (60% pre-, 87.5% post), sepsis (20% pre-, 75% post), shock (30% pre-, 50% post), assessing "watchers" on the ward (36.4% pre-, 75% post), and consulting pediatric critical care (18.2% pre-, 100% post). All respondents found the curriculum and its simulations to be helpful.

Conclusion: The Transition to Foundations curriculum is helpful for first year pediatric residents to prepare for increased roles and responsibilities in Foundations of Discipline, including night float rotations. Simulations of acute presentations improve resident knowledge and comfort prior to overnight on-call experiences.

111 Availability of operative surgical experience and faculty supervision for Competency-based education: Study of a general surgery residency program at a teaching hospital in Pakistan

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Introduction: Reduced operative exposure and adequate faculty supervision for residents remain a concern in the West. In view of its critical importance for competence based medical education (CBME), we conducted a study to elicit the available operative surgical workload and faculty supervision in general surgery program at Aga Khan University Karachi, Pakistan.

Methods: This was a cross sectional study covering 5 years. Five core procedures for general surgery residents were identified by the core program faculty and the number of these procedures available per year were determined. The mean number of core procedures per eligible resident during their entire training were calculated to represent potential operative surgical experience. The ratio of the average number of residents rotating in general surgery per year to the number of attending surgeons was determined as a measure of available supervision. Both parameters, operative surgical workload and potential supervisory capacity, were benchmarked.

Results: The mean total number of residents per year was 31 (range 28-35). The numbers of available core procedures were consistent over the years of study. Potential exposure of eligible residents to each core procedure during their entire training was: 19.5 cases for incision and drainage of superficial abscess; 89 cases for laparoscopic appendectomy; 113.6 for inguinal hernia repair, 267.5 for laparoscopic cholecystectomy and 64.5 for perianal procedures. The workload of core general surgical procedures at AKUH was higher than recommended volumes for operative surgical experience for residents in the US (Accreditation Council for Graduate Medical Education). The average yearly residents to attending surgeons' ratio was 1:2.5, which is also within recommended limits.

Conclusion: This method of assessing the potential of a surgical program for transitioning to CBME seems practical and can be generalized provided modifications are made to accommodate local factors e.g. type of procedures regarded as core.

112 Curriculum design during the pandemic: Redefining Competency-based residency education

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Introduction: Curricular design in residency education in Mexico is starting to embrace the movement known as Competency-based medical education (CBME). Initial steps for transition to a CBME curricular design were taken during 2021 with 17 specialty programs in a Multicentric Program in Mexico.

Methods: In 2021 a Curricular Design Committee in PGME (CD Committee) was established in a Multicentric Program in Mexico with the participation of the Academic Dean, Director of PGME, Specialty Coordinator, Research Coordinator, Mentoring Program Coordinator, Wellbeing and Professionalism Program Coordinator, and the PGME Office Staff. The CD Committee coordinated the general process of curricular design and the specialty specific educational design process by the specialty committee of each discipline. The CD Committee developed a general curricular framework to begin transition to competency based medical education by including the main reference documents from international CBME initiatives such as the "Competency by Design (CBD)" by the Royal College of Physicians and Surgeons of Canada. Also, this committee designed the specific courses for the general professional competencies that are required to be included by all programs. The CD Committee in PGME guided the process by providing specific faculty development workshops, guidelines, frameworks and formats to each Specialty Committee as resources to develop the curricular design including basic elements to start the transition to CBME. Due to the pandemic, all the weekly meetings and workshops were held virtually during 2021.

Conclusion: In 2022 a new curricular design for each of the 17 specialty programs will be developed and implemented in 2023, as an initial step to a future transition to a full CBME curricular design. Major limitations include the lack of a national CBME for PGME. Future directions focus mainly in implementing next steps to CBME transition and promote the creation of a national CBME framework for residency education.

113 Evaluation of Competency-based Medical Education in Canadian family medicine residency programs

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Introduction: The lack of examples of implemented and evaluated CBME approaches to residency education is problematic. These data are needed for two reasons: 1) to offer ideas/templates for transitioning programs, and 2) to offer reassurance to programs that CBME can result in improvements to training, making it worth the time and effort required to adopt CBME. Canadian family medicine programs began transitioning to CBME in 2009, and can be a good source of outcomes data. In this study, we compared data from 4 family medicine residency programs to evaluate how CBME has been implemented in different contexts.

Methods: This is a mixed methods cross-sectional secondary data analysis design. Data came from 4 programs (A, B, C, D) over a range of years (A&D = 10 years; B = 8 years; C = 7 years), and included over 3000 residents (A=980; B=1200; C=360; D=650). Descriptive statistics are presented for the following outcome variables: low-stakes and high-stakes assessments; learning plans; remediation; number of months in training. Each program's assessment director was interviewed.

Results: Similarities across programs: number of months to complete training (mean = 24); percentage of each cohort needing remediation (3-5%); and learning plans (mean = 6). Differences between programs: numbers and types of assessments (low-stakes: means between 58-73/resident/year; high-stakes: means between 18-28/learner/year). All programs allowed for individualized training experiences based on competence demonstrated. Pre-CBME data was requested, but was very limited, so not presented.

Conclusion: The 4 programs were quite similar; differences were primarily due to local contextual factors. In all programs, assessment directors report a large increase in assessment data, resulting in more accurate information about resident competence. Major limitations were that only 4 programs were included, and the limited availability of pre-CBME data preventing pre- to post-CBME comparisons. Future directions include expanding to all family medicine residency programs.

114 Faculty and resident physicians' perceptions of feedback in Diagnostic Radiology in the era of Competence by Design

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Background: Provision of meaningful feedback will be integral to the transition to Competence by Design (CBD) in diagnostic radiology post-graduate medical education. We sought (1) to evaluate faculty and resident physicians' perceptions of feedback pertaining to CBD, (2) to assess faculty's perceived importance of the application of attributes of high-quality feedback, and (3) to correlate these observations with resident physicians' reported frequency of the application of these attributes.

Methods: This was a cross-sectional, questionnaire-based study. All faculty who participate in the teaching of diagnostic radiology resident physicians and diagnostic radiology resident physicians at a single post-graduate medical education program were eligible to participate. Perceptions of feedback evaluated included preferred frequency of provision of meaningful feedback, value of direct observation in the provision of meaningful feedback, and opportunities for direct observation in the radiology department. Faculty's perceived importance and resident physicians' reported frequency of the application of 24 attributes of high quality feedback were each rated on a 5-point Likert scale. Data were summarized by descriptive statistics. Bivariate analyses were conducted as appropriate.

Results: Fifty faculty (*n*=29) and resident physicians (*n*=21) participated in this study. Most faculty favoured daily feedback (57.1%) while most resident physicians favoured weekly feedback (47.6%, *p*<0.05). Direct observation in the provision of meaningful feedback was rated to be more highly valued by faculty than resident physicians (*p*<0.05). Faculty rated opportunities for direct observation in the radiology department to be more frequent than resident physicians (*p*<0.05). Resident physicians' reported frequency of experience of the application of all 24 attributes of high-quality feedback suggested the application of these attributes to be less frequent than their perceived value by faculty.

Conclusion: Faculty and resident physicians' perceptions of feedback pertaining to CBD were dissimilar. Initiatives to improve the application of attributes of high quality feedback are warranted.

115 Getting stakeholders to the table: Development of specialty-wide Entrustable Professional Activities for Emergency Medicine

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Introduction: Entrustable Professional Activities (EPAs) are widely used as a framework for assessment. The variability in Emergency Medicine (EM) programs and training settings, however, make it difficult to develop EPAs that are designed to meet the needs of the specialty as a whole. Furthermore, incorporating the perspectives of multiple stakeholders (i.e., supervisors, trainees, and patients) in the development of EPAs is also complex. Without a shared vision amongst stakeholders, our trainees may provide inconsistent care.

Methods: In an effort to tackle these challenges, we assembled an advisory board of 25 EM faculty to draft and reach consensus on a final list of EPAs using Delphi methodology; consensus was set at 80% over three rounds of voting. These EPAs were further refined based on feedback collated in focus groups from residents (3 groups, 9 participants) and patients (1 group, 8 participants). Data were analyzed using thematic analysis.

Results: 22 EPAs were adopted for EM residency training. The group additionally wrote an EM-specific supervisory scale to represent the unique constant presence of EM faculty and how autonomy is progressively awarded within the specialty. The resident focus groups highlighted differences in the priority of EPAs as well as when these should be achieved throughout residency when compared to faculty. All focus groups described differences in terms of how patients "fit" within the EPAs.

Conclusion: These 22 EPAs create a unified set of expectations for EM residents from the perspective of faculty. Incorporating residents and patients as key stakeholders ensures optimal alignment of priorities and language within the EPAs across all affected by their implementation. It also situates patients as a priority within the assessment of these EPAs. As these EPAs are enacted, all stakeholders must be invested and engaged in the evaluation of their use for assessment both for and of learning.

116 Implementation of Competence Committees during the transition to CBME in Canada: A national fidelity-focused evaluation

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Introduction: Competence committees (CCs) are tasked with reviewing assessment data to make judgments about learner progression towards competence. Yet, little is known about how CCs have operationalized their mandate. This study evaluated the fidelity of CC implementation in Canadian postgraduate specialist training programs during the transition to competency based medical education (CBME).

Methods: A national survey was distributed to CC chairs in programs that had implemented CBME prior to 2020. Survey questions were derived from guiding documents distributed by the Royal College of Physicians and Surgeons of Canada reflecting intended processes and design. Questions addressed membership, relation of the CC to the residency program committee, data sources, data review and decision-making processes.

Results: Response rate was 39% (113/293) with representation from all eligible disciplines. Committee size ranged from 3-20 members, 42% of programs included members external to their teaching faculty, and 20% included a resident representative. Most programs (72%) reported that a primary review and synthesis of resident assessment data occurs prior to the meeting, with some data reviewed collectively during meetings. When determining entrustable professional activity (EPA) achievement, most programs followed the national specialty guidelines closely with some exceptions (53%) or strictly (32%). Documented concerns about professionalism, EPA narrative comments and EPA entrustment scores were most highly weighted when determining resident progress decisions.

Conclusion: This national survey suggests there is general alignment between intended and actual implementation of CCs across specialist training programs in Canada. Noted heterogeneity in structure, function, and outputs of CCs likely reflects local adaptations, but may also explain some of the variable challenges faced by program during the transition to CBME. Our results offer educational leaders important fidelity data that can help inform the larger evaluation and transformation of CBME.

117 Implementing Competency-based education in multiple residency programs: A workshop to structure and monitor programs' priorities using ADDIE

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Introduction: All Canadian postgraduate medical programs are implementing the major components of competency-based education. To do so, our institution had to provide individualized training and monitoring for all our programs. We organized half-day workshops with four work sessions: core competencies, competency portfolio, curriculum mapping, and competence committee. Program teams decided their priority tasks after each work session. We classified tasks into ADDIE pedagogical design stages (Analysis, Design, Development, Implementation, Evaluation). We conducted interviews at 12 months.

Results: Programs (n=29) prioritized mainly tasks of Design (37% of tasks), Development (24%) and Analysis (21%). At 12-month follow-up (n=17), 20% of the tasks were initiated, 22% reached a higher stage, 33% reaching Implementation/Evaluation. Programs needed material and financial resources for Analysis/Development tasks, and faculty training for Implementation/Evaluation tasks.

Conclusion: Work sessions provided a structure to commit to priority tasks. Their classification into ADDIE stages systematized the monitoring and the search for solutions.

118 Preparedness of diagnostic radiology resident physicians and medical students for the transition to Competence by Design: A national cross-sectional, questionnaire-based study

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Introduction: This medical education research study was intended to evaluate diagnostic radiology resident physicians' and medical students' (1) knowledge of Competence by Design (CBD), (2) perceived benefits of and challenges or barriers to the transition to CBD for diagnostic radiology resident physicians, and (3) perceived overall preparedness for the transition to CBD in diagnostic radiology.

Methods: This was a national cross-sectional, questionnaire-based study. All Canadian diagnostic radiology resident physicians and medical students were eligible to participate. Knowledge of CBD was evaluated through participants' self-reported rating of their knowledge of CBD on a 5-point Likert scale. Perceived benefits of and challenges or barriers to the transition to CBD for diagnostic radiology resident physicians were rank ordered. Participants' overall self-reported preparedness for the transition to CBD was assessed on a 5-point Likert scale. Data were summarized by descriptive statistics. Bivariate analyses were conducted as appropriate.

Results: Ninety-four diagnostic radiology resident physicians (n = 77) and medical students (n = 17) participated in this study. Participants' mean ± standard deviation (SD) self-reported rating of their overall knowledge of CBD was 2.86 ± 0.94. Provision of meaningful feedback to learners and the ability for learners to identify their own educational needs were among the highest ranked benefits of the transition to CBD for diagnostic radiology resident physicians while demands on time and increased frequency of evaluation were among the highest ranked challenges or barriers to the transition to CBD for diagnostic radiology resident physicians. Few participants reported being either 'prepared' (4.7%) or 'somewhat prepared' (14.0%) for the transition to CBD.

Conclusion: Preparedness for the upcoming transition to CBD in diagnostic radiology may be improved. Targeted interventions to improve the preparedness of diagnostic radiology resident physicians and medical students are warranted.

119 Setting the stage for coaching: Examining clinical teachers' coaching behaviours through a systems-based behaviour change lens

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Introduction: There is growing recognition that clinical teachers' coaching behaviours can play an integral role in shaping the quality of learners' experiences in postgraduate medical education (PGME). Previous studies indicate that more evidence-informed resources are needed to enable effective implementation of coaching behaviours in PGME contexts. The Behaviour Change Wheel (BCW; Michie et al., 2014) and the Theoretical

Domains Framework (TDF; Cane et al., 2012) provide salient frameworks for understanding the behavioural components of coaching and identifying effective interventions. The objectives of this study were to (a) examine clinical teachers' perspectives of effective coaching behaviours, (b) identify barriers and facilitators to coaching, and (c) identify appropriate coaching interventions.

Methods: Using a social constructionist approach, 13 clinical teachers participated in individual semi-structured interviews. A two-phase analysis was adopted. First, reflexive thematic analysis was used to analyse the data inductively and iteratively. Second, themes were then deductively mapped onto the BCW and TDF to further explore the behavioural determinants of coaching and to identify salient interventions.

Results: Participants' perceptions of coaching behaviours were captured in six themes pertaining to clinical teachers' capability (a self-directed journey and a balancing act), opportunity (the show must go on and setting the stage), and motivation (call me coach and an audience for coaching). Results indicated that although clinical teachers felt they had the necessary knowledge and skills to engage in coaching behaviours, social and environmental constraints limited the practical implementation of these behaviours. Participants expressed concerns regarding the incompatibility of coaching behaviours with an assessment-focused learning environment.

Conclusion: The findings of this work offer support for the application of behaviour change theories in medical education research and capture nuances specific to the clinical learning environment. Practical recommendations include shifting interventions beyond individual-level knowledge and skills to creating social and environmental contexts that support coaching.

120 Through the eyes of the beholder: What CanMEDS roles do clinician teachers see when interpreting EPAs?

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Introduction: The CanMEDS framework guides postgraduate medical education in Canada by representing the broader needs of the public. Nonetheless, the CanMEDS roles are now less prominent following a recent shift to Entrustable Professional Activities (EPAs) as cornerstones of assessment. Therefore, to evaluate whether these new assessment standards still capture society's needs, we explored how well clinician teachers share an understanding of the roles when interpreting specific EPAs.

Methods: We conducted a cross-sectional study of 3 specialties (adult cardiology, emergency medicine, anesthesia) to measure how consistently clinician teachers mapped roles onto EPAs. Clinician teachers received a set of EPAs from their specialty via an online survey, and for each EPA selected which roles they thought informed the EPA. We then used these responses to measure agreement with classifications found in formal EPA guides (% matching responses) and agreement among participants (inter-rater reliability via intraclass correlation; ICC).

Results: Thirty-eight clinician teachers participated with no attrition. Overall, across roles and specialties, classifications of EPA by role matched formal guides approximately 62% of the time, with Communicator (75%; SEM = 2.6) and Collaborator (69%; SEM = 2.3) showing the greatest agreement. Inter-rater reliability was poor across all included roles and specialties (Cardiology ICC = 0.28; Emergency Medicine ICC = 0.24; Anesthesia ICC = 0.17).

Conclusion: Our findings suggest frontline clinician teachers in Canada often "see" different roles when interpreting EPAs, and thus that this new EPA-based assessment system does not easily map onto the pre-existing CanMEDS framework.

121 Effect of multiple opinions on diagnostic accuracy

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Introduction: Involvement of multiple clinicians has been proposed to reduce diagnostic error using two broad strategies– interactive groups, where active discussion occurs, and nominal groups, where independent individual judgments are combined statistically. The two processes are not necessarily equivalent. The objective of the study was to compare the diagnostic accuracy of nominal and interactive groups of different sizes (3 and 6).

Methods: Sample: 36 internal medicine and emergency medicine residents from McMaster University. Cases: 12 written general medicine cases, A-L, were administered using the design shown below.

Resident	Group Size		
	1	3	6
1-12	ABCD	EFGH	IJKL
13-24	EFGH	IJKL	ABCD
25-36	IJKL	ABCD	EFGH

Initially, participants individually reviewed four cases online and provided a differential diagnosis. Residents then formed online groups of three and reviewed four new cases, and formed a group consensus. Finally, they were combined into groups of six and the consensus process repeated with 4 new cases. Later, nominal groups were created by combining the individual records into groups of three and six.

Outcome: Diagnostic accuracy was scored as 0,1 or 2 for each case. Analysis was conducted on a) Number of unique hypotheses b) accuracy of primary diagnosis, c) accuracy of differential diagnosis. Nominal groups were scored by presence of correct diagnosis in one or more records.

Results: As shown in the Table, nominal groups considered more hypotheses than interactive groups. (p<.0001). The accuracy of primary and differential diagnosis was similar for nominal and interactive groups and for group size three vs. six.

	No. Hypotheses		Primary Dx (/2)		Diff Dx (/2)	
Sample size	3	6	3	6	3	6
Nominal	7.23	12.5	1.10	1.08	1.46	1.46
Interactive	2.81	2.67	1.15	1.15	1.31	1.42
Conclusions						

Conclusion: The study showed that accuracy was no greater for groups of 6 than 3. There was no benefit of group discussion.

122 Competence by Design faculty development update: Cultivating confidence within a new curricular framework

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Introduction: Competence by Design (CBD), a model of competency-based medical education (CBME) being implemented across Canadian residency training programs, has now been fully integrated into the University of Toronto's Department of Psychiatry. This shift has necessitated adjustments on the part of both faculty and residents, with many finding it challenging to adapt and stay appraised of best practices. In light of this significant change, the Department's Faculty Development Committee designed a series of interactive sessions to support faculty and residents in navigating and thriving within a CBD-based curriculum.

Methods: A preliminary needs assessment was administered to clinical supervisors, education leaders, curriculum teachers, and coordinators to determine their experiences with previously offered CBD training and solicit specific topics of interest to be addressed. The series was developed based on this and comprised three virtual workshops, with preeminent educators acting as speakers and moderators. Part 1 focused on CBD and assessment, Part 2 revolved around the CBD coaching model and integration of mentoring principles, and Part 3 explored a competency-based approach to cultivating professionalism.

Results: The series was well-attended with 60 participants for Part 1, 56 for Part 2, and 50 for Part 3. Feedback received on all three sessions was highly positive overall, with attendees generally agreeing the workshops met their respective stated learning objectives. The majority also found the information presented was relevant to their needs, described the format as interesting/engaging, and noted that the session encouraged them to consider changes to their current practices. Furthermore, speaker evaluations were laudatory.

Conclusion: The highly positive feedback suggests faculty and residents found the series to be useful and thus represent an effective method of facilitating the transition to CBME. Moving forward, we anticipate these sessions could be adapted and made more broadly applicable for a variety of other programs and specialties.

123 Introducing the 3B's 'Bring, Becoming and Being': Perspectives on early-career doctors learning professionalism and professional identity formation

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Introduction: In postgraduate medical education in Australia, Directors of Training (DoTs) facilitate the workplace learning of professionalism and the formation of professional identity (PIF) (1) for early-career doctors (ECDs). Research (2-6) has shown approaches to support although evidence suggests DoTs do not feel confident fostering the learning of professionalism (3). (7, 8) The modified 3-P model of workplace learning (9) provides a theoretical framework. However, a gap in understanding is

how those supporting the ECD's, approach and foster this learning. The research question was 'through the lens of the modified 3- P model (9), how can we understand the learning of professionalism and formation of professional identity in early career doctors?'

Methods: As qualitative research I conducted semi-structured interviews with DoT's (n=10) responsible for ECD in rural, regional, and metropolitan hospitals. In addition, I held three focus groups with DoT and supportive colleagues (n=15) and two focus groups with ECD's (n=6) to support the data triangulation. (10) I used thematic analysis to identify key themes and surmise perspectives using the modified 3-P (9) model of workplace learning as a theoretical lens.

Results: I identified three themes; firstly, understanding what ECD 'bring' when they commence work is essential for further learning and identity that is forming, secondly 'becoming' provides a perspective on the process of learners completing work activities in context and the third theme 'being' includes DoT views on what makes a difference in shaping professionalism and PIF in ECD's as they work.

Conclusion: The three themes of bring, becoming and being are useful to understand views DoT and those supporting them hold of their learners, when they start, enter practice, and complete their early years. There is an opportunity for DoTs to adapt how they understand, review and leverage learner factors, context and activities to achieve PIF as an outcome.

124 Fatigue and non-urgent pages in Obstetrics and Gynaecology residents at the University of Alberta

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Introduction: Fatigue is a common concern in medical education with long work hours. Prolonged sleep deprivation and increased work hours increase fatigue and associated medical errors. There is limited knowledge of resident reported fatigue within Obstetrics and Gynaecology and the role of the number, urgency or acuity of pages. This study aims to determine the baseline fatigue level and the contributing role of non-urgent pages in fatigue management.

Methods: Two surveys were administered to all Obstetrics and Gynaecology residents. The first assessed fatigue, sleeping hours, and barriers to sleep. The second recorded pages received and classified them based on urgency. Data

was analyzed using mixed methods; quantitative data compared junior residents (PGY1/2) to senior residents (PGY3/4/5) and low-risk shifts to high-risk shifts. Qualitative analysis was performed with two study members identifying themes and conflicts resolved by a third.

Results: The response was 67% (n=21). Junior residents had less sleep on average than senior residents with 60% of juniors sleeping 6 hours per night and 81.8% of seniors sleeping 7 hours per night. The most reported reason for inhibited sleep was academic responsibilities, which were cited more often by seniors in comparison to juniors (p=0.0116). Post-call habits were not different between senior and junior residents. In general, senior residents tend to get more sleep on-call than junior residents though this was non-significant. The number of non-urgent pages was cited by 45.6% of residents as a key barrier to sleep on call and by 76.2% as the priority area for intervention. Of 358 pages over 18 shifts (retention 81%), 38.4% of high-risk and 43.75% of low-risk pages were classified as non-urgent.

Conclusion: While the ability to sleep before and during on-call shifts differs by PGY year, both groups identify non-urgent pages as a significant source of fatigue and key area for intervention.

125 Peer assessment after clinical exposure (PACE)

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Introduction: There is an increasing body of evidence that identifies psychological stressors associated with working in healthcare. Peer Assessment After Clinical Exposure (PACE) is a structured programme designed to support staff following traumatic or chronic work-related stressful exposure. The PACE programme was developed and implemented in an emergency department (ED) and can be applied to other work settings aside from hospital settings.

Method: As PACE gained momentum, other major trauma network hospitals utilised the PACE programme. This structured service allows colleagues to support one another responsively and safely. PACE has been embedded within Intensive Care Units, wards, radiology departments, paediatric units, midwifery departments, primary and secondary care settings. It's applicable to all clinical and non- clinical staff.

The current coronavirus pandemic increases the risk of work-related stress and presents challenges for all NHS workers never experienced before, being described as the 'perfect storm' for potential stress-related illness for healthcare staff (Khajuri 2020). A cross-sectional study undertaken in China identified mental health distress among front-line healthcare workers, particularly nurses, and emphasised the need for psychological intervention (Lai et al, 2020).

Results: As a result of Covid 19, the demand for PACE increased and from a reflection of the research and the actual PACE assessments, it became evident that more was required by staff than an education in acute and chronic stress reactions.

Conclusion: PACE has evolved further to meet the needs of staff during Covid-19 and to support employers by minimising sick leave by providing employees with protective factors and coping strategies. PACE offers a structured way to support colleagues in the busyness of day-to-day workload, provides an education in coping strategies and protective factors that can be utilised in the midst of stressful exposure and is also an opportunity to raise awareness about the importance of individual mental health investment.

126 Redefining a Wellbeing program for medical residents in the pandemic: Self-care as a professional and institutional social responsibility

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Introduction: Healthcare professionals have been facing the second pandemic of the century, the first being burnout, which has been well documented internationally for decades. Wellbeing and selfcare are nowadays recognized as professional competences to be developed in the medical education continuum. It is also an institutional social responsibility for health care systems to foster an environment that promotes wellbeing and addresses burnout.

Method: In 2021 residents from 17 residency programs participated in the Wellbeing Program in a multicentric program in northern Mexico. Due to the COVID pandemic all the activities were conducted virtually: 1) mental health screening, 2) wellbeing workshops, and 3) chief residents leadership workshop. A mental health screening

questionnaire was designed and implemented online in collaboration with the psychiatry department. Chief residents participated in the design of the invitation to participate that was shared with their fellow residents through social media. Participation was voluntary and confidential. In the first pilot, 3 specialty programs, 1 subspecialty and 1 fellowship program were invited to participate. Participants received the results per email with specific recommendations and a directory to contact support services and/or mental health professionals. During the summer of 2021, residents received an invitation to participate in a virtual Wellbeing Workshop of their choice addressing different topics including mindfulness, resiliency, and stress management. Most of the first-year residents from all programs attended at least 1 workshop during an academic protected time, however general participation from residents of other years was low. Chief residents and co-chiefs participated in a leadership workshop that was held virtually, topics addressed included: leadership styles, communication skills, group and time management, crisis management, wellbeing and mental health, and an specific suicide prevention session.

Conclusion: Self-care and wellbeing must be addressed as professional competencies and educational strategies must be implemented during residency education.

127 Exploring the development of Standardized Patient educational experiences to support equity, diversity, and inclusivity mandates of Health care training programs

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Introduction: Standardized patient (SP) programs are increasingly tasked with creating learning and assessment opportunities integrating equity, diversity and/or inclusivity (EDI). However, little is known about the optimal approach and many SP programs struggle to meet these growing needs. While theory on instructional design, sociologic translation and simulation design could be helpful, no cohesive framework exists to guide SP programs.

Methods: We interviewed 15 key informants involved in creating or managing SP based education in response to health professions training EDI mandates. Verbatim transcripts were analysed qualitatively in an iterative

coding process, anchored by direct content analysis methodology, and informed by three theoretical frameworks: instructional design, sociologic translation and simulation design.

Results: Three themes were identified: (1) creating safety for SPs paid to be vulnerable, (2) fidelity as an issue broader than who plays the role, and (3) mobilizing despite inequities. SP work involving traditionally marginalized groups risks re-traumatization, highlighting the importance of empowerment of SPs. Fidelity issues not only reflect who plays the role, but also by not obscuring critical perspectives by facilitating inclusion of traditionally underrepresented or marginalized groups in creating educational objectives, co-creating content, determining who and how to recruit SPs, and training and debriefing SPs. Finally, building relationships with communities, and empowering members who are also health providers and/or educators facilitates community mobilization for SP based education.

Conclusions: Mindful of the oppressive nature of educational structures, SP programs should be allies and accomplices to traditionally underrepresented groups allowing collaboration and shared governance of the educational development process from its outset. SP programs play important roles in: (1) advocating with curricular leadership, (2) building relationships with community and empowering mobilizers, (3) facilitating co-creation and co-delivery of educational content, and (4) building inclusivity and safety into recruitment, training and simulation processes.

128 Feedback on the fly: Rapid Cycle Deliberate Practice versus traditional simulation to improve resident performance in forceps assisted vaginal deliveries

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Introduction: Exposure to forceps assisted vaginal deliveries (FAVD) in residency training is declining. Rapid Cycle Deliberate Practice (RCDP) is a novel simulation strategy wherein participants cycle between deliberate practice and feedback within the simulation scenario to achieve skill acquisition. We primarily aimed to assess the effectiveness of RCDP in improving obstetrics and gynecology residents' performance and skill retention compared to traditional debriefing in a FAVD simulation.

Methods: Obstetrics and gynecology residents in all years were randomly assigned to a high-fidelity FAVD simulation using either RCDP or traditional debriefing. Performance was evaluated using an Objective Structured Assessment of Technical Skills (OSATS) tool (range 0-130). Residents repeated the simulation 4-6 months later in a low fidelity setting to assess skill/knowledge retention. Independent and paired t-tests were used for statistical analysis. Residents provided qualitative feedback via an anonymous survey and these responses were analyzed thematically.

Results: Thirty-three residents were assigned to either the traditional or RCDP groups. There was no significant difference in the immediate total performance scores between groups (traditional 99.6, SD 13.1; RCDP 90.7, SD 15.2; p=0.082). At 4-6 months, both groups demonstrated significantly improved total performance scores (traditional 112.3, SD 8.6, p=0.001; RCDP 105.7, SD 10.9, p=0.001). The duration of simulations and debriefing was comparable. Seventy-six percent of residents in the RCDP group indicated that the "real-time" feedback style was advantageous. Three senior residents suggested that the RCDP method is less beneficial at a senior level.

Conclusion: Both traditional and RCDP simulation methods are effective in facilitating skill and knowledge retention in FAVD. The RCDP style may be preferred over traditional methods by junior residents. This study is limited by a small sample. Future research should be directed to further investigate discrepancies in learners' experience based on stage of training and assess translation of learning to clinical performance.

129 This abstract has been withdrawn.

130 Metacognition in simulation: Evaluating the impact of eye-tracking augmented debriefing

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Introduction: Debriefing after simulation is used to facilitate reflective metacognitive thinking and improved learning in medicine. A new debriefing technique, eye-tracking augmented debriefing, may provide advantages by allowing the learner and assessor to view the learner's performance from their own perspective. This study evaluated the impact of eye-tracking augmented debriefing on resident metacognition compared to a traditional debriefing technique in a simulation-based environment.

Methods: In this mixed methods study, 54 emergency medicine residents from two institutions were randomly assigned to either the experimental group (PEARLS with eye-tracking augmented debrief) or the control group (PEARLS debrief only). Participants completed two simulation cases during an objective standardized clinical examination (OSCE) with debriefing following each case. Before starting OSCE case 1 and after completing OSCE case 2 participants completed the 51-item Metacognition Awareness Inventory (MAI). The mean overall change in MAI scores was compared between groups using an independent t-test. Interviews explored participants' experiences with the debriefing sessions and their metacognitive processes. Interview data were analyzed thematically.

Results: There was no statistically significant difference in the mean MAI scores for eye-tracking augmented debriefing vs. PEARLS alone (M=11.6, SD=24.7) vs. (M=19.4, SD=23.3), p=0.24. Four themes were identified from the interviews: 1) Experience with debriefing, 2) Learnings about self, 3) Indicators of metacognition, and 4) Application of metacognition. Most participants reported that debriefing was useful. However, those randomized to eye-tracking augmented debriefing reported that it added value by facilitating tailored feedback, helping with visualizing, and resulted in novel insights such as identifying strategies to manage their cognitive load.

Conclusion: Despite not finding a significant quantitative difference between conditions, participants described the benefits of receiving eye-tracking augmented debriefing and many requested that it be used again. Future research should leverage longitudinal designs to better understand the development of metacognitive thinking facilitated by debriefing in simulation contexts.

131 Simulation-based medical education: Effect of guided observation versus active participation on learning outcomes

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Introduction: Simulation-based medical education is considered superior to conventional medical education as it has shown to improve learning and patient outcomes. Active 'hands-on' participation seems to be a major benefit compared to observing the scenario either live or through video, however it is costly to develop/deliver to all learners. We aimed to explore the difference in learning outcomes among the active participants and those who learned through guided observations (vicarious learning) in a simulation-based training program on Crisis Resource Management (CRM).

Methods: We conducted a RCT with 40 third-year medical students as the participants. Study participants were divided into active participants, leaders, and observers. All the participants were required to complete a CRM error identification exercise using a 5-minute video with scripted errors. Following the video-exercise scenario, the active participants were directly involved in two objective-based CRM case/scenarios and the observer watched them with a "guided worksheet". After that, all learners participated in a debriefing session, guided by a simulation educator with no knowledge of the study purpose. Debriefing was conducted using the plus-delta model of debriefing. Once the team-based CRM scenarios were completed, the participants were asked to redo the CRM error identification exercise. Subjective test using a 5-point Likert scale was performed. Statistical analyses included the ANOVA, Mann-Whitney U-test, and Chi-square tests. A p-value ≤ 0.05 was considered to be significant.

Results: Four post-workshop measures including video score (objective), CRM understanding, team leader understanding, and team member understanding were conducted after completion of the CRM workshop. No statistically significant differences were detected (p≥ 0.05) between the active participant and guided observer groups.

Conclusion: Our study demonstrated no difference between active participation and guided observation in terms of learning outcomes and self-efficacy for participants in this CRM program.

132. This abstract has been withdrawn.

133 "A different appreciation": Perspectives on harnessing experience to support physicians in caring for patients affected by intimate partner violence

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Introduction: Experiencing intimate partner violence (IPV) is associated with a range of negative health and psychosocial sequelae. Although timely access to medical care that addresses safety as well as needs for emotional, physical, and social support can play a role in mitigating

these ill effects, many patients describe reticence to disclose experiences with IPV to healthcare providers reporting concerns related to stigma, or having distress amplified by disenfranchising healthcare practices. To help train physicians who are better equipped to care for their patients experiencing IPV, this study explores how physicians learn to think about their roles in addressing IPV through their professional training.

Methods: Guided by principles from interpretive description and constructivist grounded theory, we conducted interviews with residents (n = 29) and practicing physicians (n = 28) in emergency medicine, family medicine, obstetrics and gynaecology, paediatrics, and psychiatry, and with stakeholders with professional expertise related to IPV from outside of medicine (n = TBD) from across Canada.

Results: Physician participants stressed the important role that experiential learning in interactions with patients and colleagues played in shaping how they understood IPV and their roles in responding. Although participants understood identifying patients affected by IPV as chief amongst their related professional roles, they framed providing referrals to resources and other service providers as their primary response to patients disclosures, foreclosing potential opportunities to build supportive ongoing relationships with patients experiencing violence. Ongoing interviews with stakeholders from outside of medicine gesture towards ethical and strategic guidance for harnessing the power of experiential learning to enhance physicians' capacity to respond supportively.

Conclusion: Thoughtfully incorporating experiential learning opportunities related to IPV into residency education could play an important role in better preparing physicians to care for their patients who are affected by IPV, ensuring more support is accessible for people experiencing violence.

134 This abstract has been withdrawn.

135 Clinician Scholar Program: Need assessment focus groups with psychiatry residents and faculty

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Introduction: The newly developed Clinician Scholar Program (CSP) at the Department of Psychiatry supports and enhances the training of psychiatry residents interested in pursuing academic careers in education scholarship, quality improvement (QI), and other creative professional activities (CPA). Our project aims to identify seminar topics and key considerations in curriculum development of the CSP to support education and training of residents interested in these fields.

Methods: We conducted three virtual need assessment focus groups with a total of 10 senior psychiatry residents, junior and senior faculty members within and beyond the Department of Psychiatry. We asked about their perceived learning needs of psychiatry residents who are interested in education scholarship, QI, and CPA. Two independent reviewers performed thematic analyses of the focus group transcripts and summarized the key findings.

Results: Recommendations for CSP seminars included grant-writing workshop, ethics board approval, time management, and opportunities for residents to present their projects. Creating a community of practice where residents can learn about career trajectory, network with colleagues and mentors was also suggested. Focus group participants emphasized the importance of parity between this new program and the Department's Clinician Scientist Program in terms of funding allocation and departmental support.

Conclusion: This project provided an insight on psychiatry residents' and faculty members' perception of curricular needs and support for residents in the new CSP. The CSP seminar topics are expected to best support education and training of psychiatry residents interested in education scholarship, QI, and CPA.

136 Cognitive biases in Internal Medicine: A scoping review

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Introduction: Cognitive biases are predictable variances from rational thought processes. Few debiasing strategies have shown efficacy in reducing errors. However, biases don't always result in error, partially because many studies focus on diagnostic, not therapeutic reasoning. We conducted a scoping review exploring which biases are most prevalent in Internal Medicine (IM), how they influence patient outcomes, and what debiasing strategies are effective.

Methods: Our scoping review searched PubMed, OVID, ERIC, SCOPUS, PsychINFO, and CINAHL. Search terms included variations of "bias", "clinical reasoning", and the subspecialties of IM. Inclusion criteria were: discussing bias, clinical reasoning, and physician participants.

Exclusion criteria were: non-IM specialties, non-English language, and including data from non-physicians.

Results: Seventeen of 334 identified papers were included. All were published within the past 16 years studying participants at academic centers. Two papers looked beyond general IM: one in Infectious Diseases and another in Critical Care. Seven papers distinguished bias from error. The most commonly studied outcomes were diagnosis, diagnostic testing, and treatment in 65%, 29%, and 29% of studies, respectively. The most commonly cited biases were availability bias, confirmation bias, anchoring, premature closure, and the primacy effect. Contributing factors were years of practice, stressors, and practice setting. Only years of practice significantly influenced susceptibility to bias in one study. Eight studies addressed de-biasing, specifically content-knowledge interventions, awareness of bias training, and reflective practice. Three showed efficacy, all with low-levels of evidence.

Conclusion: We found little evidence to suggest that cognitive biases directly cause medical error, which could account for the mixed results on how effective bias countermeasures are. We suspect the struggle to demonstrate that cognitive biases cause error is partially due to study design that does not distinguish the two processes and partially due to clinicians' ability to have an effective plan of care with an incorrect diagnosis.

137 Designing an emergency medicine curriculum for off-service residents

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Introduction: Emergency Medicine (EM) programs across Canada do not have a standardized curriculum or objectives for off-service residents on their core EM rotations. An off-service EM rotation for junior residents must address both its' learners' objectives of training, and also prepare them with an approach to common EM presentations that are relevant for future practice. The objective of this project was to involve both resident and staff physicians' in the development and delivery of a novel EM curriculum based on education theory.

Methods: Kern's framework was used in the creation of this novel curriculum. A literature review revealed common topics in EM that were considered high yield by experts. Focus groups of targeted teachers and learners identified the top ten topics alongside the preferred teaching modality per topic. A unique planning group composed of major stakeholders, clinician educators, program administrators, and residents formulated educational objectives for each key topic, creating a series of interactive workshop-based cases, online modules (chest x-ray and ECG interpretation), and an introductory ACLS primer. Learner session evaluations were designed to be mixed-methods. We measured perceived importance of content material, case difficulty level, instructional methods, new knowledge obtained, and instructor evaluations.

Conclusion: We received over 350 evaluations for this novel curriculum within the first year completed by off-service learners. Evaluations for this program were received favorably. Narrative feedback acknowledged that cases were relevant topics that were frequently encountered in residency, and were at an appropriate difficulty level. In each session evaluation, residents were asked to list three 'key pearls' they learned, which encouraged reflection and consolidation of knowledge. All residency training programs should employ education theory in creating curriculums for their off-service trainees and this could serve as a framework for a national off-service EM curriculum.

138 Effectiveness of self- directed acute abdomen simulation skills course in medical training

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Introduction: HybridLab is a fusion of distance learning and self-directed medical simulation that allows learners to train 24/7 at their workplace without direct presence of the instructor and/or technician. The aim of this study was to assess the satisfaction of participants and the course utility.

Methods: One hundred one (101) fifth-year medical students of Lithuania University of Health Sciences were enrolled in the simulation-based course focusing on the sequence of initial assessment and clinical examination of the acute abdomen. Objective assessment was followed by post-course survey of the participants and the estimation of self-perceived ability to carry out the crucial clinical tasks and skills.

Results: Students required approximately 7 hours to achieve 87% performance score according to the set standard. During the post-course survey 94% of the participants stated that the acquired knowledge and skills were clinically relevant and applicable (46% very useful, 48% useful). After the course 93% of the respondents were

confident that they were capable of safely applying the acquired skills in the clinical setting (38% felt proficient, 55% skilled).

Conclusion: Our study revealed not only effective acquirement of knowledge and clinical skills but also high approval of the participants for the offered self-directed learning environment and contents. Broad acceptance is crucial for successful program implementation.

139 Evaluating the educational value of an open-access flowchart-based pathophysiology learning resource: The Calgary guide to understanding disease

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Introduction: The shift from classroom to online-based education has been accelerated by the COVID-19 pandemic. The authors report on The Calgary Guide to Understanding Disease, a pathophysiology-based flowchart online resource founded in 2012, used to supplement medical learning. In medical education, disease pathologies are often presented as lists of symptoms or disease manifestations. Our study highlights how a pathophysiology-based resource can be efficiently integrated into teachings for medical learners.

Method: The Calgary Guide is an online resource accessed by over 800,000 users from over 180 countries as of October 2021. To evaluate its effectiveness, a survey-based study was conducted in the Cumming School of Medicine at the University of Calgary. Cronbach's Alpha was used to determine the internal consistency within the main categories: quality of content, potential effectiveness as a learning tool, and ease of use. A one-way analysis of variance and a subsequent Tukey's Honest Significant Difference was used to compare medical students from all three years. Thematic analysis was applied to translate short answer response into themes.

Conclusion: The Calgary Guide was rated highly by medical students from all three graduating classes. The Calgary Guide's top strengths include its accessibility, consolidation of materials, and ability to build relationships between concepts. Students who have predominantly transitioned to online learning due to the COVID-19 pandemic have found The Calgary Guide to be a more effective learning tool with high quality of content. Future efforts will be directed towards updating existing Calgary Guide content and expanding the current database of flowcharts to cover more topics. A feedback mechanism will be implemented to allow users to evaluate their experience with using The Calgary Guide. Further research could involve evaluating the impact of The Calgary Guide on objective learner outcomes, such as test scores and clinical performance.

140 Evaluation of a virtual escape room journal club for pediatric residents

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Introduction: Critical appraisal is a key competency across medical specialties. Literature describes the utility of journal clubs; however, little is published on alternative formats. We assess the ability of a novel virtual escape room journal club to improve evidence-based medicine (EBM) knowledge among pediatric residents.

Methods: General pediatric residents at our institution participated in an online EBM escape room, delivered virtually during academic half-day. An article and appraisal worksheet were pre-distributed. Trainees worked in break-out rooms to answer appraisal questions and teams competed to escape in the allotted time. Validated responses advanced teams to subsequent screens, incorrect responses returned clues, employing behaviourism and social learning theory. Moderators fielded outstanding questions to close the session. Residents were invited to complete a validated EBM test before and after the educational intervention. Pre- and post-test scores were assessed, and sub-analysis was completed for session-specific content. Paired T-tests were used for matched analysis. Anonymous written feedback was also collected.

Results: Twenty residents completed the pre-test and ten completed the post-test with mean (SD) total scores pre- and post-intervention of 52.9% (±27.9) and 58.3% (±25.6), respectively. Mean scores for session-specific content were 58.3% (±36.7) before and 56.3% (±23.5) after the intervention. There was no statistically significant difference in mean pre- and post-intervention total scores (p=0.5) or session-specific content scores (p=0.83). Residents reported that the format increased their interest and knowledge in EBM.

Conclusion: The virtual escape room journal club was a feasible and engaging teaching modality. Despite no significant difference in scores following our intervention, subjectively residents endorsed more comfort with EBM. Study limitations include single program data and loss to follow-up. Wide ranging scores may reflect baseline

knowledge or interest differences. Future research could assess if this format, delivered as a longitudinal curriculum, improves objective knowledge over time.

141 Learning histology in the 21st century: "Microscopes or no microscopes"

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Introduction: Despite changes in medical school curriculums causing a decrease in focus on the basic sciences, histology remains an indispensable science to be taught. The light microscope has been the primary laboratory instructional tool (Hussein et al, 2005). The long-term trend of declining laboratory teaching hours in medical schools has led to an increase in the use of various other forms of instruction (Bloodgood and Ogilvie, 2006).

Objectives: Characterize the attitudes and perceptions of University of Ottawa pre-clerkship medical students on its histology curriculum and the use of light microscopy versus digital images in histology learning.

Methods: After doing a pilot study (n=42/320), approximately 160 pre-clerkship second year medical students at the University of Ottawa were sent a survey which contained a combination of Likert-style, multiple choice, and short answer questions.

Results: 58 students participated in the survey. 77.6% of students stated that histology is important in developing the knowledge base required for them to be a competent physician. 84.5% stated that their completion of the objectives was facilitated by classroom sessions. Although 58.6% of students did not participate in microscope sessions and 75.9% of students preferred the digital images to the use of light microscopes for learning purposes, 48.2% of students agreed and 43.1% of students were neutral that the opportunity to participate in histology microscope sessions should remain available to students. While 44.8% of students valued using a combination of microscopes and digital images, 41.4% were neutral.

Conclusion: While microscopes may not be the preferred method of histology learning, pre-clerkship medical students still appreciated their involvement, and valued using a combination of microscopes and digital images for histology learning. This is beneficial to maintaining a balanced medical curriculum for histology.

142 Making an impact: Evaluation of Alberta College of Pharmacy's online licensee educational program

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Introduction: The Alberta College of Pharmacy identified a need for licensees (Residents, Pharmacy Managers) to better understand their roles and responsibilities as leaders in pharmacy, and therefore launched a mandatory online Licensee Education Program to address this need. Through eight chapters, the program is designed to support current, new, and potential licensees as well as new proprietors, (1) develop their understanding of legal expectations and responsibilities in operating a pharmacy, (2) demonstrate the ability to utilize relevant resources and legislation, and (3) develop their understanding of the managerial role. To evaluate the educational program, a one-year outcome-based evaluation was conducted.

Method: Participants (n=437) completed pre- and post-program online surveys. Quantitative data were analyzed using paired sample t-tests to examine the extent of change observed between participants' pre-and post-program ratings. Qualitative data from the open-ended survey questions were thematically analyzed.

Results: The majority of participants (>70%) 'agreed' or 'strongly agreed' that they were able to meet the learning objectives of the modules and that the program was valuable, usable, and feasible. There were statistically significant improvements in participants' perceptions of their confidence, competencies, and knowledge in all of the program's 25 learning objectives. The most commonly reported strengths of the program were that the material was clear and comprehensive, and that the structure was interactive and well-organized. Some identified weaknesses included program length and technological issues. Recommendations for improving the program included streamlining content and providing more practical examples.

Conclusion: The online Licensee Education Program is valuable, usable, and feasible, and has a positive impact on participant's learning. It bridges a gap by providing an essential program for current/new/potential licensees and new proprietors to learn about their roles and responsibilities in operating and managing a pharmacy.

143 Organizational socialization of medical residents: The interplay between the resident and the department

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Introduction: Socialization is crucial for residents in transition, but notoriously difficult. Currently, socialization is conceptualized as a one-directional process that the resident merely undergoes passively. However, little is known about how residents currently navigate their socialization process when they're transitioning from student to resident. The goal of this study is to explore residents' proactive behavior, and their perceptions of organizational efforts during their socialization process. Without a thorough exploration, residents will be at risk of going through an unsuccessful transition which might lead to stress, or ineffectiveness on the job.

Methods: We conducted a qualitative interview study with 16 residents from different specialties, of two hospitals in the Netherlands. Data were analyzed using thematic analysis. A template using Organizational Socialization (OS) as theoretical lens consisted of proactive behavior to adapt to a new role, and the efforts of the department to guide socialization.

Results: Proactive behavior was used by residents to explore what behavior was expected in their new role, and how to position themselves towards other health care professionals. Residents perceived that presence or absence of certain organizational conditions influenced their proactive behavior. For example, residents' proactive behavior (i.e., observing or asking questions) was stimulated if organizational conditions were felt as low-threshold, whereas proactive behavior was inhibited if organizational conditions were felt as high-threshold. If residents established a social relation with another health care professional, collaboration was stimulated. But if a social relation was absent, collaboration was hindered, as they did not know what to expect from each other. Given this, residents experienced that the organizational tactics profoundly impacted their opportunity to show their proactive behavior.

Conclusion: These findings show that both the individual resident and the department play a role to facilitate or inhibit socialization. However, future research should focus whether proactive behaviors and organizational efforts reduce stress and increase effectiveness on the job.

144 Pediatric resident perspectives on a procedure day pilot program

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Introduction: Royal College objectives emphasize the importance of competencies in lumbar punctures (LPs) amongst pediatric trainees. While a relatively common procedure in pediatrics, studies show that skills decay over time and that trainees may experience uncertainty and variable success rates in performing LPs. Unsuccessful LPs can lead to increased treatment costs, inappropriate antibiotic use, and patient morbidity. Further, the Hematology/Oncology department at our centre has diagnostic and therapeutic LPs that are performed under procedural sedation weekly and do not always have a learner in attendance.

Objectives: To implement an initiative in a pediatric residency program allowing residents to sign up for these procedure days. The goals of this initiative were to provide additional opportunities in a safe, controlled, and well-supervised setting to improve LP competence and confidence amongst residents.

Methods: A pilot proposal was presented to all stakeholders (program leadership and hematology/oncology departments) for approval. Residents were then able to sign up for twice-weekly procedure days to enhance LP skills. Following the pilot residents were sent a questionnaire to assess their perceptions of the initiative and skill enhancement using a 5-point Likert scale.

Results: A total of 14 residents signed up for 42% of eligible days (range of 1-4 days per resident). Total number of LPs ranged from 2-20 per resident over the pilot. All respondents agreed that the initiative was useful in improving their technical skills and confidence. 91% of respondents strongly agreed this pilot should continue to be implemented in the program.

Conclusion: This educational initiative successfully improved resident perceptions of LP skills. Residents felt they were more confident and skillful after this enhanced educational opportunity. With the second iteration of this initiative starting in 2022, we will be using pre- and post-procedure day surveys to further assess self-reported improvement in various domains.

145 Professional identity formation during the COVID-19 pandemic: The case of a residency in Obstetrics and Gynecology in Brazil

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Introduction: Medical residency is considered the gold standard for quality medical education and holds the acquisition of the professional identity of a specialist during this period as one of its central elements. Residents obtain this identity, among other factors, through the educational environment and direct interaction with peers and preceptors. However, changes in healthcare and educational routines during the recent COVID-19 pandemic have significantly affected these channels.

Methods: This study is part of a qualitative research project to analyze the professional identity formation in a medical residency program in obstetrics and gynecology at a public hospital in southern Brazil. Twenty-eight semi-structured interviews were conducted with residents and preceptors, as well as a focus group with residents, which were recorded, transcribed and analyzed in an effort to construct major analytical categories.

Results: This research found that the restriction of movement and physical contact imposed the use of alternative means of interpersonal interaction, such as communication through social media or instant messaging service to mobile devices. These limitations also affected educational activities such as morning rounds, lectures and seminars. These changes had a relevant impact, especially in Brazil, where physical proximity is an important cultural characteristic, even in work and study environments.

Conclusion: The results show that this new type of virtual interaction may have affected the formation of professional identity among obstetrician-gynecologists. These findings suggest that medical residency programs should be attentive to changes in the residents training to ensure that the specialist's profile and expected skills consolidated over several years are not lost.

146 Residency education in 2021: Experience, remediation and redefining the future

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Introduction: In 2021, new training opportunities were presented at the same time that the health systems were required to provide care to patients with COVID-19. In the first semester of 2021, the directors of all medical specialty programs were asked to identify the level of development of professional competencies in resident physicians by specialty year and prepare a remediation plan.

Methods: Information from 3 programs was included in this study: 2 of medical specialties (internal medicine and pediatrics) and 1 subspecialty (cardiology). Data was gathered in an Excel format addressing the actions implemented for competency development and the remediation plan. All programs identified a negative impact to competency development due to limited clinical rotations (national and international), as well as limited learning opportunities in training procedures related to the specific clinical specialty. On the other hand, professional competencies that the environment of the pandemic encouraged to develop were teamwork, patient safety, well-being and self-care. All programs reported the implementation of special on call shifts to increase the rotation between non-COVID hospitals in 100% of the residents. The main elements in the remediation plan were: clinical training recovery plan, including an increase in rotations to non-Covid hospitals and simulation exercises, and academic recovery by implementing specific specialty topic sessions and attending virtual conferences.

Conclusion: The residency education environment in 2021 presented different opportunities and challenges for the training of resident physicians. All programs included in this study reported that training opportunities and a remediation plan were implemented. Remediation is essential for the recovery of the development level of specific competencies for the corresponding year of specialty. The development of professional skills that the environment of the pandemic has encouraged to emphasize and develop, such as teamwork, patient safety, well-being and self-care, resource management, should also be highlighted.

147 Scholarly curriculum at a Psychiatry Residency Program in Canada: Ten-year outcome

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Introduction: Participation in a scholarly project was made mandatory at Western University Psychiatry Residency Program (WUPRP) for all residents joining in 2011. This was long before RCPSC released their guidelines for mandatory participation of psychiatry residents in research, in 2015. The purpose of this study was to analyze if making participation in scholarly project mandatory during

residency, affected the scholarly productivity of the residents.

Methods: Data on all residents enrolled at WUPRP (including London and Windsor campus) from 2011 to 2017 was analyzed with respect to their participation in a scholarly project. Specifically, we looked at the number of residents who were able to complete the project they were involved in, published papers, presented at local, national or international conferences and won prizes.

Results: Total 54 residents were enrolled during 2011-2017. Three residents were delayed in their training due to medical reasons and so were excluded from the data analysis. Out of the remaining 51 residents, 39 were able to complete their project. 12 residents could not complete the projects due to lack of feasibility resulting from various reasons. 18 residents were co-authors on at least one published paper; 4 of these residents published multiple papers. 9 residents presented their project at local conferences as poster or oral presentations. 18 residents presented at the national/international conferences, out of which 8 received a prize for their presentation. One resident participated in Clinician Investigator Program with the goal of pursuing research as a career.

Conclusion: Mandatory requirement to participate in a scholarly project at the WUPRP appears to have a positive outcome on scholarly productivity of the residents. There is insufficient data to comment if residents will be interested in taking research as a career option.

148 Successfully implemented longitudinal communication curriculum in large internal medicine residency program

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Introduction: Physicians utilize communication skills in virtually every aspect of practice – a cornerstone of the provider-patient relationship. Formal communication curricula designed to cultivate trainees' skills remain rare, especially in large training programs. Drawing from existing resources, our program developed and implemented a year-long communication curriculum designed to augment internal medicine residents' communication skills through a combination of workshops with roleplay and high-fidelity

simulation with standardized patients, all paired with near-peer and faculty coaching. The purpose of this curricular evaluation is: (1) to assess the feasibility of implementing a longitudinal curriculum in a large, multisite internal medicine residency program and (2) to assess the preliminary utility of the curriculum.

Methods: To assess feasibility, we tracked resident attendance, estimated personnel hours required for implementation based on available data, and tabulated cost to run high-fidelity simulation. To assess utility, we developed a survey using a rigorous survey design method to evaluate resident and faculty satisfaction at the end of each communication block.

Results: We collected a response rate of 85.9% (n=79) and 76.5% (n=13) from residents and faculty respectively. Most residents (92.4%) and all (100%) faculty would recommend the curriculum to other residency programs. Two-thirds of the way through the longitudinal curriculum, 91.8% of residents have participated. Most (>88%) felt well prepared for each of the simulations. Most residents felt that the simulated conversations (81%) and faculty feedback/debriefing (89%) would improve their real-world clinical communication. All faculty (100%) felt prepared or very prepared for their role and wanted to continue participating in the curriculum.

Conclusion: We demonstrated that a longitudinal communication curriculum can be implemented in a large, multisite internal medicine residency. Moreover, our curriculum has been highly satisfactory to residents and faculty alike with preliminary evidence suggesting that the curriculum can improve real-world clinical communication.

149 Today's rounds are brought to you by: Psychiatry residents presenting at departmental grand rounds

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Introduction: Many residency training programs encourage or require residents to present at departmental grand rounds. However, the literature on how residents perform this role is limited, making it difficult to determine whether rounds presentations effectively address resident learning needs and training objectives. We examined the characteristics of resident presentations at Dalhousie University Department of Psychiatry (DUDOP) grand rounds to determine how residents participated in grand rounds and how resident presentations aligned with the

requirements of competency-based medical education (CBME).

Methods: DUDOP grand rounds evaluation data collected between 2012-2021 was analyzed using a data-driven content analysis. Factors analyzed included gender of presenter, year of training at time of presentation, presentation format, whether the presentation was done independently or collaboratively and who residents collaborated with.

Results: Over the past ten years, 32 rounds presentations had at least one resident. 75% of resident presenters are female and most resident presenters are in their final years of training. All residents presented collaboratively, most often with co-residents at a similar stage of training and/or staff psychiatrists. Resident presentations fall into two broad categories: (1) traditional grand rounds format (2) non-traditional format (e.g. debates, quizzes). Approximately half of resident presentations were in the form of traditional grand rounds. Overall, resident presentations were well received, with traditional rounds being the rated higher than non-traditional rounds. The current evaluation tool does not align with current CBME milestones or objectives of training.

Conclusion: Resident rounds presentations are an established practice within DUDOP and are well-received. Residents present in their senior years of training and always present collaboratively. When residents choose to present with teaching faculty, there may be a mentorship component to this. With the transition to CBME in psychiatry, specific evaluation criteria for such presentations may help residents meet training objectives.

150 Training medical Oncologists to care for an aging population: Understanding factors affecting uptake of Geriatric Oncology curricula

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Introduction: Despite the aging population driving cancer growth, oncology trainees receive little training in geriatrics. The aging of the population is one facing all subspecialties and understanding factors affecting uptake of geriatric curricula is important. We sought to understand this by exploring how oncology trainees currently learn about geriatric oncology (GO) and factors affecting uptake of GO curricula in medical oncology training.

Methods: We conducted an explanatory mixed methods study of Canadian medical oncology residents and recent graduates consisting of an electronically administered survey (n=47) followed by semi-structured interviews (n=22). Descriptive statistics were used to analyze the survey data. Interviews were analyzed using inductive thematic analysis.

Results: While most survey respondents (77%) reported receiving some formal GO training, 36% received only 1-2 hours. Clinical teaching, mostly occurring informally, was the most common strategy. Despite this, participants reported feeling prepared to care for older adults with cancer. Respondents reported learning about older adults was important (mean 4.3±1.0 out of 5, range 1.0-5.0). Participants in the interviews strongly emphasized the importance of clinical teaching. E-learning was felt to be particularly well suited to support ongoing learning and to deliver learning on topics not formally incorporated into residency training. E-learning was viewed as complementary to, but not replacing, in-person discussions and clinical learning. Lack of trained faculty to teach GO, as well as a lack of formal recognition of GO training were barriers to learning about GO.

Conclusion: Unlike prior studies, most respondents report some exposure to GO training but the overall amount of teaching remains low and most occurs informally. A better understanding of the informal training currently received and whether this is adequate is essential. More formal recognition of geriatric training for certification would align with the aging of the population and would facilitate uptake of geriatric associated training.

151 Factors influencing use and selection of electronic learning resources by trainees and recent graduates

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Introduction: Electronic learning (e-learning) is increasingly popular, but some electronic resources are more widely utilized than others. Development of e-learning can be resource intensive, thus better understanding factors that affect uptake is important. The objective of this study is to explore factors related to the uptake of e-learning resources.

Methods: We conducted a mixed methods study of Canadian medical oncology residents and recent graduates consisting of an electronically administered survey (n=47) followed by semi-structured interviews (n=22). The survey explored use of electronic resources and perceived facilitators and barriers to e-learning. Interviews were used

to expand on findings from the survey as they related to choice of e-learning resource. Descriptive statistics were used to analyze the survey. Interviews were analyzed using inductive thematic analysis.

Results: Respondents highly valued e-learning (mean 4.3±0.75 out of 5, range 3.0-5.0). Reasons for using e-learning included fulfilling a gap in knowledge, often triggered by an encounter, clinical rotation, or certification exam. A minority described using e-learning as part of a formal or mandatory course. Choice of e-learning resource was influenced by availability and accessibility (23%), ease of use (15%), and applicability of the information to the learner's context (13%). This was supported by the interviews which identified flexibility in timing, an appealing user experience, credibility of the resource, alignment of information with the learner's needs and the ability to regulate information to suit learning needs as factors affecting choice of e-learning resource. The most common barriers to using e-resources were cost (21%), time (19%), and availability/accessibility (13%). Thirteen percent of respondents felt there were no barriers to e-learning.

Conclusion: Common factors influence how trainees choose to fill gaps in learning and choice of e-learning resource. These should be considered when developing e-learning resources to help optimize utilization.

152 A needs assessment for 21st Century teaching in Postgraduate Anesthesiology: A Canadian study

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Introduction: Academic half day (AHD) is a major component of academic curricula in North America, traditionally done in person. There is a lack of evidence to say this method is best, and with the advent of the COVID-19 pandemic, many of these AHD moved to an online format with no assessment of learner needs in this time. We propose a needs assessment to determine what changes should be implemented, and to gauge the opportunities for a national curriculum.

Method: Key stakeholders in the Association of Canadian University Departments of Anesthesia (ACUDA) were contacted to reach the program directors (PDs) from the 17 anesthesiology programs in Canada. These PDs have direct knowledge of the organization and content of AHD in their program. We will involve anesthesiology residents in each of the 17 programs to understand their perspectives on AHD. The present study will be a mixed methods assessment. Semi-structured interviews with the PDs are taking place to understand each program's AHD and its input processes (N:17). A cross-sectional survey of residents (N:600) is being conducted via both selected and constructed response formats. All authors will have reviewed the survey for feasibility and clarity using modified Delphi. Numerical data will undergo descriptive statistics. Qualitative data will be discussed to identify themes. NVivo 1.0 will be used as the data analysis software. Data analysis completion will be April 2022.

Conclusion: The recent pandemic offers an opportunity to reexamine curricula and to determine what gaps exist within anesthesiology residency education, with a specific focus on AHD. This will fill a knowledge gap in residency education in Canada, as well as inform the benefits and challenges for a national curriculum for anesthesiology in Canada.

153 Beyond residents-as-teachers: New opportunities for research and innovation

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Introduction: Residents as teachers (RaT) programs that train residents are common across Canada, but few provide opportunities for interests that go beyond learning a basic curriculum. In addition to a mandatory five-topic RaT curriculum at the University of British Columbia, we created an opportunity for residents to engage in research and innovation projects related to teaching through expanding our Faculty Development Initiatives Grant (FDIG) to include residents (now FRDIG).

Methods: The FRDIG supports research or innovation projects that aim to study or improve the quality of teaching in the Faculty of Medicine. It is open to residents and faculty and invites proposals for projects which can take up to two years to complete with a maximum funding of $5000, per project. Projects are required to be aligned with an area of need or interest in faculty development or RaT, such as equity diversity and inclusion, learning relationships, direct observation and feedback or other areas identified by the applicant. The mean annual number of faculty applicants in the previous 10 years was 6.7 (SD=4.0). In 2021, our first year to include resident co-applications, we received 26 applications of which 13 were co-authored by residents. Of the four projects awarded,

three included resident researchers and covered very diverse topics, including training programs for residents on simulation debriefing, instruction of critical airway techniques in a cadaver model, and resident-led OSCEs for peer teaching and feedback.

Conclusion: FRDIG created an avenue for residents to explore the CanMED Scholar role beyond a basic RaT curriculum. It generated considerable interest in its first year, providing residents with faculty- supported opportunities for innovation, research, and collaboration in the teaching domain. We anticipate that at completion, innovations and publications will encourage residents in career choices which embrace teaching and medical education scholarship.

154 Co-creating a Logic Model for program evaluation of General Residency Psychiatry Program with resident, faculty, program, and hospital site representatives

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Introduction: Program evaluation is an essential component to provide evidence to prove and improve a program's quality and effectiveness. The recent implementation of Competency-Based Medical Education to Canadian residency programs has presented new opportunities and challenges to residents, faculty, residency programs, and hospital sites. The Department of Psychiatry planned a half-day online retreat for the General Psychiatry Residency Program (GPRP), with a focus on program evaluation. Our objective is to co-create a feasible and sustainable framework (i.e., Logic Model) for program evaluation of the GPRP with resident, faculty, program, and hospital site representatives.

Methods: Four virtual breakout groups were arranged during the online retreat, representing the core types of stakeholders/parties of the GPRP, including: residents; faculty; program; and hospital sites. Each breakout group was led by a facilitator who was involved in GPRP administration. Insights and suggestions from retreat participants regarding the "input", "activities", "outputs", and "outcomes" components of the Logic Model, in addition to external factors and unintended outcomes of the GPRP were discussed and collected, followed by a large group debrief session.

Results: A logic model was developed with key stakeholders to set priorities and guide program evaluation

of the GPRP. We refer to this framework to (1) monitor actions and activities for achieving desired residency program outcomes; (2) collect and analyze data to prove and improve our program on an ongoing basis; and (3) document and reflect on short-term (e.g., program-related) and long-term (e.g., system-wide) accomplishments or changes as a result of the residency program. We also take into considerations of external factors and unintended outcomes of the GPRP while ensuring feasibility and sustainability of the evaluation efforts.

Conclusion: By engaging and gathering insights from retreat participants, the Department of Psychiatry can improve the delivery and achieve ongoing program evaluation and quality improvement of the GPRP.

155 Competency- based medical education: A pilot to develop a formal curriculum for the Ultrasound Rotation

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Introduction: Ultrasound (US) is a dynamic imaging modality with high operator dependence. Unlike other modalities, radiologists often directly participate in US image acquisition/scanning. This is done during both diagnostic studies (for problem-solving) and image-guided procedures (such as biopsies, vascular access, and drain placement). Therefore, radiology residents must learn to both interpret and acquire images during their US rotation. This necessitates a unique curriculum when compared to CT or MRI-focused rotations. The purpose of this study was to develop and test this curriculum.

Methods: In anticipation of the transition to a Competency-Based Medical Education system, a new US rotation curriculum was developed which incorporated specific learning objectives and frequent evaluation. Objectives for US image interpretation were established based on Royal College guidelines and standard textbooks, and a list of diagnoses/pathologies that residents should know by the end of their rotation was compiled. Objectives for US scanning were established in collaboration with sonographers at our institution and included: familiarity with patient positioning, operation of US machines, US probe manipulation techniques, and standard scan planes/views. During a pilot trial, residents focused on both image interpretation and scanning for a different organ system (e.g. genitourinary) each week. Residents obtained daily evaluation forms from sonographers on scanning technique. To ensure CanMEDS Medical Expert learning

objectives were achieved, residents had weekly meetings with the rotation supervisor for an oral exam on pathology from that week's organ system. The rotation supervisor also reviewed sonographer evaluation forms and directly observed residents scanning on an ultrasound simulator.

Conclusion: This pilot trial was well-received by residents, who felt that simultaneously learning both image interpretation and scanning greatly increased diagnostic abilities. Evaluation forms from sonographers showed that residents consistently improved their scanning technique through the course of the rotation. The curriculum will be finalized and implemented for the 2022-2023 academic year.

156. This abstract has been withdrawn.

157 Development and implementation of a transgender medicine curriculum for Internal Medicine residents

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Introduction: Two-spirit, lesbian, gay, bisexual, transgender, queer, intersex, and asexual (2SLGBTQIA+) individuals present with unique health care needs, and are known to have higher rates of chronic disease and substance misuse disorders. Further, patients who identify as transgender or gender non-conforming present with explicit health care needs as it relates to addressing gender dysphoria, psychosocial support, and medication access. In light of this, medical education strategies should be implemented to train the next generation of Internal Medicine physicians to be competent in this area.

Methods: We followed Kern's six step approach to curriculum design to create a curriculum template for teaching trainees the necessary skills to care for transgender patients. This method has demonstrated widespread success in medical education and in various medical subspecialties. Semi-structured individual interviews of faculty and Internal Medicine residents will be conducted to understand their needs for developing competencies related to transgender health. Results will be used to inform development of an academic half day session, and objective structured clinical examination (OSCE). Prior to the academic half day, participants will be sent two journal articles highlighting key concepts related to the care of transgender patients. Before and after academic half day, a numeric assessment form will be distributed to participants. Assessment results will be used to inform development an of OSCE station, where formal

grading will be conducted across various educational domains. Both the clinical case and OSCE scenario will be developed via an iterative review process by study investigators.

Conclusion: Following completion of this curriculum, residents will have demonstrated competency in the following skills: communication skills in the general care of/approach to care of transgender and gender non-conforming patients; acquisition of basic knowledge on hormone use (estrogen and testosterone) and long-term side effect profile, including necessary lab monitoring parameters; and, demonstrated basic engagement in health promotion activities.

158 Examining the impact of first trimester accommodations for pregnant resident physicians

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Introduction: Residents in their first trimester of pregnancy face challenges that impact their ability to manage the scheduling demands of training. No national standards for accommodations for residents in early pregnancy have been published. The current provincial resident contract implements work duty restrictions once the resident "has completed twenty-seven weeks of gestation, or earlier if a valid medical reason is provided (and) may require a medical certificate..." Our study objectives are to determine when accessible accommodations in the first trimester are available 1) how they are utilized, and 2) whether the presence of accommodations improves affected residents' attendance and rotation assessments. We hypothesize that accessible accommodations for residents in their first trimester will be utilized by residents and decrease the number of unexcused absences and flagged assessments during the first trimester.

Methods: In January 2022, the accommodation will be available to residents in the first trimester of pregnancy in our family medicine program to protect them from working in excess of 12 hours or between 2400-0600h and allow them to attend medical appointments for up to 4 half days per 4 week block. To evaluate this accommodation, we will examine qualitative data through anonymous resident surveys, and quantitative data in a non-randomized longitudinal observational study with analysis of assessments and absences during the first trimester of pregnancy one year before and after implementation.

Conclusion: The findings of this project will provide a better understanding of how best to support resident physicians in the first trimester of pregnancy. We hope to see expansion of this type of accommodation into other residency and medical school programs.

159 Examining the validity of a novel on-call assessment tool in plastic surgery

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Introduction: A range of workplace-based assessments are used in competency-based medical education (CBME) however, none are designed to specifically assess on-call performance. Unlike daytime shifts with numerous opportunities for direct supervision and observation of performance, the on-call period largely involves indirect supervision or no supervision at all and residents often function semi-autonomously. The lack of direct supervision results in minimal feedback and this important function of resident learners is often lost to any meaningful assessment. There is a substantial opportunity to gain insight into a resident's competence and improve learning by making on-call decisions and performance an area of assessment and feedback. The purpose of this study is to evaluate the validity of assessments generated using an on-call assessment tool.

Methods: We are piloting a formative, consensus-group developed on-call assessment tool in the Division of Plastic and Reconstructive Surgery at Western University. The tool examines multiple CanMEDs roles and elicits patient and faculty feedback. Based on a contemporary validity framework, we will conduct both a reliability and psychometric analysis of the tool. We will hold semi-structured interviews with residents and staff involved in the pilot to gather reflections on tool feasibility, consequences of use and acceptability through a grounded theory approach of qualitative analysis.

Conclusion: Appropriate methods of assessments are essential to the success of CBME and to maximize resident learning. Validity evidence from this study should provide guidance on how to make our on-call assessment tool more feasible and improve the provision of formative feedback. Based on our results, this tool could be used by other programs within the Western University Department of Surgery and ultimately, could be adopted nationally by both surgical and non-surgical programs. A project limitation may be difficulty with faculty and resident buy-in for use of the tool.

160 Focusing on the leader role: Conceptualization of a pilot program in family medicine

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Introduction: Leadership skills are essential for family physicians. The trend toward increased health system leadership roles for family physicians, as well as challenges facing primary care aggravated by the COVID-19 pandemic, can result in family physicians taking on formal leadership roles. The Family Medicine training program at one Canadian university includes leadership competencies as a core requirement, however, a gap in leadership training remains. A focused, pilot program to improve residents' leadership skills is currently underway. An understanding of the path taken, including curriculum design and program development will provide a model for other family medicine programs considering a focused approach to developing leadership skills in early career stage.

Methods: The LEADS framework which includes five leadership domains is the foundational basis for our training curriculum. Semi-structured interviews of nine faculty physicians in leadership positions identified priority topics within each domain for resident leadership education. The pilot program takes place at a central location from our four training sites and comprises: (1) five monthly interactive seminars, each covering one LEADS domain and related topics; these workshops will provide dynamic, engaging and hands-on learning experiences; and (2) A summative TED talk-style presentations by participants about training takeaways. Instructors are leaders or leadership development experts from different backgrounds, including healthcare, medical education, human resources, business, professional sports and the military. A small cohort (8) of residents were selected by application which included: a personal statement letter, good academic record, and support from their Site Director and Academic Advisors. Mixed-method approach, following the Kirkpatrick's evaluation model will be used to evaluate training effectiveness.

Conclusion: This pilot program is tailored for early career family physicians. Participants will be prepared to be involved in organizational and system changes necessary to improve health through innovation in health professions education, patient care, and research.

161 Growing the Indigenous workforce: Experiences from an Australasian Specialist Medical College

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Introduction: The Royal Australasian College of Physicians (RACP) is committed to growing the Indigenous physician workforce in keeping with its Indigenous Strategic Framework. The RACP is taking an organisational and individual approach to support attraction, selection and retention of Indigenous trainees across a training pipeline.

Methods: The organisational and individual approaches are strengths-based [Bourke et al 2020] utilising Indigenous knowledge and resilience. The organisational approach includes updates to the cultural competence domain in the Professional Practice Framework (akin to the Canmeds roles), accreditation standards and key policy documents. Developing the individual approach includes establishment of networks, removing financial barriers and introducing coaching opportunities. This work recognises and privileges input from Strategic Partners; both Indigenous RACP members and team members. Ensuring meaningful progress for these two approaches has also involved mirroring the work itself and building the capabilities for cultural safety [Curtis et al 2019] and critical allyship [Nixon 2019] as an organisation and for individuals. This has allowed for workplace learning [Billett 2001] for non-Indigenous team members which builds a culturally safe workplace.

Conclusion: Growing the number of Indigenous Physicians relies on individuals and organisations taking a strengths-based approach and integrating cultural safety. Building cultural safety at an organisational and individual level needs Indigenous partners with critical allies working in solidarity.

162 Learning with, from and despite emotions: A new tool to examine residents' emotions and emotion regulation strategies during crisis management simulations

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Introduction: Emotions affect residents' ability to learn as well as their performance. To regulate emotions in collaborative settings, residents must manage their own (individual) and each other's (group) emotions to optimize performance and psychological safety. Moreover, the ability to regulate one's own and others' emotions underscores many CanMEDS competencies (e.g., communicator, collaborator, leader). We sought to better understand individual and group emotion regulation (ER) by developing and using a self-report measure to analyze ER strategies during simulation training.

Methods: A pre-post survey study was conducted at the McGill University Health Centre for Interprofessional Simulation with eight residents enrolled in team crisis management training simulations. Residents were evenly divided into two groups, completed two simulations each, and reported their emotions, individual and group ER strategies, and perceived effectiveness of the ER strategies pre and post each simulation using our new self-report measure. Our self-report measure draws on the ER literature and was adapted and extended from Webster & Hadwin (2014).

Results and Conclusions: Our preliminary findings will contribute rare insight concerning the ER strategies residents use to regulate their own and other team members' emotions during simulations as well as their perceptions concerning the effectiveness of such strategies. Ongoing analyses of audio and video data will reveal the context in which ER occurred and will be used to assess ER effectiveness, including whether ER efforts improved feelings but impaired performance. Future work will provide validity evidence for our instrument and its effectiveness as a reflective tool to support debriefing and better assess related CanMEDS competencies, including communication and collaboration. Most broadly, ER research, such as ours, stands to improve resident training and help support residents' and their colleagues' emotional well-being across programs and specialties, which is a pressing issue as emotions are associated with burnout and harassment.

163 PIVOTMedEd: Helping medical educators pivot curricula online during the covid pandemic

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Introduction: With the onset of the COVID-19 pandemic, medical educators were faced with the task of suddenly having to unlearn curriculum assumptions and learn how to shift curricula online. PIVOTMedEd (Partners in Virtual and Online Teaching in Medical Education) was developed as a curator of useful online teaching resources.

Methods: A team of three editors crowd-sourced resources related to (1) how to teach online, (2) disciplinary areas (such as surgery, paediatrics), and (3) cross-cutting themes (such as patient safety and leadership development). Resources were reviewed for open accessibility, lack of bias, lack (or minimal) user information gathering, and relevance for learner needs.

Conclusion: PIVOTMedEd launched on March 17, 2020 as an open-access platform using the Google Sites platform. Accessible at pivotmeded.com, the site has had over 5000 unique users from 109 different countries. PIVOTMedEd has curated over 100 online resources from a wide range of fields. Key lessons include the value of a memorable name and URL, the importance of curating, the need for a team, and the value of communications from established individuals and organizations in building awareness. PIVOTMedEd is transitioning to become an official education scholarship platform of AFMC. Technical transition isalmost complete with the next phase to focus on developing the strategic plan to achieve this vision.

164 Reducing bias in CaRMS: Little strokes to fell a great oak

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Introduction: A diverse physician workforce creates healthcare teams that reflect the general population. The selection process for postgraduate medical education, facilitated by CaRMS, is mandated to be fair and free of bias. Yet, the recognized phenomenon of implicit bias may drive behaviours that create unfairness and reduce diversity. Many initiatives have been undertaken to encourage fairness and reduce bias in the evaluation of applications to the University of British Columbia General Surgery Program.

Methods: Since 2013 applications to the UBC General Surgery Program for the CaRMS R-1 CMG match have been assessed by 3 individuals: a faculty member, a senior resident and a member of the program executive. The files are scored against a rubric assessing Clinical Performance, Personal Letters, Reference Letters, Electives, Research, Leadership and Commitment to Growth and Learning. Since 2021, the files have been blinded to name and gender and all file reviewers undergo implicit bias testing. There has also been implementation of a Team Dynamics Profile, benchmarked by current residents and faculty in the UBC General Surgery Program, providing a lens into the behavioural characteristics of applicants. Short-listed candidates are interviewed by faculty, focusing on Analytical Thinking, Confidence and Concern for Others, and by residents, focusing on Proactivity, Integrity and Teamwork. Scores generated are made part of a composite, which is utilized for creation of the CaRMS Rank Order List.

Conclusion: Over time, we expect that these interventions will lead to an increase in the diversity of our program, demonstrating that blinding applications could be a practical method for mitigating gender and ethnicity bias in residency applications to improve equity in the residency admissions process and ultimately the physician workforce.

165 Sanokondu: Building a multinational social learning space for healthcare leadership education for learners

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Introduction: Internationally, healthcare providers must demonstrate leadership capabilities in practice and training. Programs, disciplines, professions, and organizations are all investing in leadership education with significant overlap in effort & resource use. Common curricula for leadership training in undergraduate and postgraduate education sufficiently adaptable for use internationally have yet to be established. A social learning space built around this vision could help meet this global need. Our purpose is to describe the evolution of Sanokondu, a multinational social learning space dedicated to leadership education for healthcare learners.

Methods: The CanMEDS 2015 review generated collaboration to design leadership training. Some of the collaborators formed Sanokondu and started the work to create a common leadership curriculum for postgraduate medical learners. Annual meetings on leadership education organized through the University of Toronto and the Royal College were used to bring together stakeholders including patients, learners, educators, & leaders across and external to the health professions. Through co-creation and feedback, a core group then created a multipronged approach to leadership education for healthcare learners.

Conclusions: Key outputs include

o Open-access modules (using CanMEDS and LEADS leadership frameworks): adapted for pharmacy/medical students, residents and faculty

o Annual summit (The International Summit on Leadership Education for Physicians - TISLEP)

o Joint events with NASHKO, NVMO, LEADS Global and CSPL

o Scholarship: peer-reviewed and invited workshops/presentations and publications

o Using feedback and harnessing virtual learning advancements, creation of

   o Curated resources for crisis leadership

   o Three unique monthly opportunities for learning, unlearning, mentorship, networking and peer support.

A growing social learning space has developed to help meet the need for leadership education for healthcare learners (www.sanokondu.com). Opportunity for partnership & collaboration continues to grow internationally and across the health professions to meet the diverse leadership education needs.

166 Sleep and fatigue in residency: Identifying needs for a pilot Fatigue Risk Management plan

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Introduction: Given patient care is provided 24/7, fatigue is an occupational risk in medical education to both patient safety and resident health. The University of Ottawa Pediatrics Residency program was tasked to create and pilot a fatigue risk management plan (FRMP) for their residents with support from the Royal College of Physicians and Surgeons of Canada (RCPSC) – the first step in the project involved determining the present state of fatigue in the training program. The aim of this study was to perform a baseline fatigue scan of current residents to further quantify the risk and explore the residents' experience involving fatigue during their training.

Methods: Twenty-six pediatric residents completed demographic surveys and 14-day diaries to assess sleep quantities/patterns and pre- and post-shift fatigue levels. Focus groups further explored fatigue experiences during training. Quantitative data identified shifts with high-risk of fatigue-related errors, with previous research suggesting cut-offs of <5h of sleep in the previous 24h or <12h in 48h. Qualitative thematic analysis was performed to draw key themes.

Conclusion: Sleep diaries captured 111 work shifts, with longest shifts being 26h on-call. 11.9% of shifts residents had <12h of sleep in the preceding 48h, and 2% of shifts residents had <5h in the past 24h. 12.9% of pre-shift levels and 30.9% of post-shift levels were in the severe (score 8-9) range. This study provides a baseline of current residents' fatigue levels, suggesting a proportion of shifts were high-risk for fatigue-related errors based on prior sleep-wake data. Key themes identified potential topics for educational interventions as well as targets for organizational improvements with regards to fatigue risk management. This data will be the basis of next steps to implement an FRMP within our organization.

167 Supporting emergency medicine resident development during the COVID-19 pandemic: Building a near-peer mentorship program

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Introduction: COVID-19 underscored a renewed urgency in building a learner support system. We implemented a technology-enabled near-peer support program for Ottawa medical students and Emergency Medicine (EM) residents based on various engagement models. It assists in residents' transition from students to residents by enhancing their professional development when taking on the role of a mentor. The purpose is to offer social connection, to improve wellbeing, and to enhance personal and academic development for residents. We aim to provide a solution to the challenges inherent to educational support in the post-pandemic era.

Methods: A near-peer mentorship program was implemented in EM in Ottawa. Thirty-nine students and twelve residents applied. Through a random number generator, twenty-four students were chosen, then assigned to the residents. In line with self-determination theory, a self-matching process was chosen to enhance intrinsic motivation. This program draws on "flexible mentoring" and is tailored to Ottawa EM's particular learning environment with an emphasis on early engagement. Participant reactions will be anonymously collected (Kirkpatrick 1). Evaluation is based on the RUFDATA framework, with survey and focus group data gathered and qualitatively analyzed. Changes in wellness and personal/professional development will be measured. Perceived Wellness Score (PSW) at time intervals will be analyzed using two-tailed independent and dependent sample T-tests. Underpinning theories, including self-determination theory and social interdependence theory are applied in the implementation of this program. Thematic analyses will be performed inductively.

Conclusion: While there is a role for wellness initiatives and professional development programs that target individual residents, more salient is the effect of interventions that target engagement on a systemic level. The implementation of a near-peer program may provide insight into the personal and academic development of residents. If successful, the framework for this program can be adapted for residents across other specialities.

168 This abstract has been withdrawn.

169 Transition academic advisor, embodying CanMEDS roles for the 'sopho-moric' year of residency

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Introduction: We identified a Scholastic gap for the "sopho-more" ('wise-fool'-overconfident of knowledge but poorly informed and immature) resident transitioning from being a medical student to entering their first year of chosen residency-their future career. As a Continuous Quality Improvement [CQI] initiative a Transition Academic Advisor (TAA), embodying CanMEDS roles was appointed, to oversee every step of their first year to meet these challenges more effectively.

Methods: The three first-year 'sopho-more' residents were introduced to their TAA within the orientation week. The residents were sent a pre-meeting questionnaire prior to their in-person meeting with the TAA who gained baseline impressions of the varied academic and non-academic aspects of their lives embodying the CanMEDS roles of medical knowledge, communication, collaboration, teaching, research and leadership in a mutually professional manner. Monthly in-person meetings of their self-reflection document were explored for relevancy, growth and mindset. Weekly Zoom meetings were conducted with the resident cohort for any additional interventions as needed. The TAA was evaluated independently by the residents. A mixed method design incorporating theme analysis to identify implicit and explicit patterns within the data was undertaken.

Conclusion: Resident feedback at the 6-month mark is positive and favorable. Their individual self-reflective assessments acknowledge being better informed of the relevance of program content with improved practicality, enhanced logistics and understanding. The monthly availability of offered support and interventions as needed provided stability and enhanced maturity with added confidence levels in self and in the program. Hybrid model of weekly Zoom contact and monthly in-person meetings were well attended indicating sustained resident engagement in this initiative. Preliminary results are encouraging and this will be continued for the incoming resident 'sopho-mores' in July 2022. Continued follow-up over the next six months will provide a year of robust data for discussion at presentation in the upcoming nine months.

170 Using EPA framework for development of interprofessional education

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Introduction: With the increasing complexity of patients, shortage of medical manpower, and the importance of patient safety issues, holistic care with interprofessional practice has become the current trend of medical care. With the introduction of competency-based medical education, entrustable professional activity (EPA) has been widely used as an educational framework in many areas of medical education. In this study, we try to utilize the EPA model into interprofessional education in our hospital.

Methods: We invited core trainers of interprofessional education to develop EPA-based educational framework. During faculty development activity "EPA workshop on interprofessional education", experts conduct consensuses and developed the EPA templates, which were reviewed by education experts later. With these 24 EPAs, clinical teachers coached and assessed trainees. Satisfaction of faculty development activity was assessed with 5 points Likert scale.

Results: A total of 48 trainers participated in the EPA faculty development activity, and the overall satisfaction was 4.88. We developed 24 EPAs, which were reviewed by 9 experts. 13 clinical teachers coached and assessed 18 trainees with these EPAs.

Conclusion: Through this process, both clinical teachers and students understood the learning objectives, teaching materials, and assessment better. However, some clinical teachers did not fully understand the EPA framework. Therefore, further faculty development activity regarding EPA was still needed.

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