MEMORIAL UNIVERSITY

OFFICE OF PROFESSIONAL & EDUCATIONAL DEVELOPMENT

Faculty of Medicine

2018 HEALTH PROFESSIONS EDUCATIONAL SCHOLARSHIP FORUM

November 27, 2018

Faculty of Medicine
Main Atrium, 1st Floor

PROGRAM

MESSAGE FROM THE ASSOCIATE DEAN, EDUCATIONAL DEVELOPMENT

Welcome to the 2018 Health Professions Educational Scholarship Forum. This is the first time that Memorial's Faculty of Medicine and Schools of Nursing and Pharmacy have come together to focus on the field of educational scholarship across the health professions. Memorial University has long been a leader in interprofessional education and this forum is a further example of how scholars and educators across health professions can collaborate to share best-practices and learn from one another. Research and scholarship continue to be collaborative endeavors and we expect new ideas and collaborations to be born from today's forum.

The Office of Professional and Educational Development (OPED) presents today's forum following a new collaboration ourselves: The merger of the Office of Professional Development (OPD) and the Medical Education Scholarship Centre (MESC). With a renewed mandate to both provide professional development for health professionals and to foster medical education scholarship, the staff of OPED are pleased to organize and host the forum, as well as present scholarship and research from the office.

We are especially pleased to welcome the Meridith Marks Mentorship Award winner, Dr. Jocelyn Lockyer from the University of Calgary. Dr. Lockyer will open with a lecture on the current state of research on feedback, and deliver a workshop on coaching and feedback for clinical learners.

Throughout the Health Professions Educational Scholarship Forum you will hear from students, residents, faculty, and staff who are engaged in scholarship in many fields: Simulation, global health, writing, and online learning to name a few. You will hear about research on education along the continuum from undergraduate to the continuing education of licensed professionals. Take the time to listen to presenters from your own field, but also from outside your field where you may have the most to learn. Be sure to network with others and embrace the opportunities to enhance your own work in educational scholarship.

Vernon Curran

Dr. Vernon Curran, PhD
Associate Dean of Educational Development
Professor of Medicine
Office of Professional and Educational Development

MERIDITH MARKS MENTORSHIP AWARD WINNER

Jocelyn Lockyer, PhD

Professor Emerita and Adjunct Professor
Department of Community Health Sciences
Cumming School of Medicine
University of Calgary

Dr. Lockyer is a career medical educator at the Cumming School of Medicine where she was Senior Associate Dean—Education (2012-2017) and Associate Dean, Continuing Medical Education/Professional Development (2006-2012).

Her primary career focus has been in CME/PD where she created opportunities for physician learning, implemented innovative educational programs and contributed and tested new approaches to physician assessment to ensure physicians have viable ways to obtain feedback and implement changes in their professional work. Additionally, she has trained a number of physicians and other health care professionals at the Master's and PhD levels who have gone on to be instrumental in educational program development, quality assurance, regulation, and other facets of the medical, nursing, and veterinary medicine professions. She has published over 180 peer review publications in medical education. She continues her scholarly work in Alberta and nationally to improve physician assessment and feedback processes through multisource feedback and the R2C2 (relationship building, reaction, content, and coaching for change) model for feedback discussion.

MERIDITH MARKS MENTORSHIP LECTURE: 9:00 A.M.

CONTEMPORARY FEEDBACK: RESEARCH AND DIRECTIONS.

LEARNING OBJECTIVES: Participants will be able to:

1. Explain why high quality feedback is critical to the development of health care professionals.
2. Describe the evidence-based literature on feedback provision.
3. Consider new and emerging research directions for optimal feedback discussions and uptake.

DESCRIPTION: Health care professional students and practitioners receive feedback constantly. Feedback is received from external sources (e.g., supervisors, peers, patients, assessment data) as well as internal sources (perceptions and feelings). When feedback is received, it may be interpreted through reflection, compared to other data, calibrated, filtered, and assimilated. Ultimately, feedback can be ignored, rejected, accepted or left pending verification from other sources. Nonetheless, it is critical that learners develop skills to seek feedback from reliable and valid external sources, reflect on the feedback drawing on the expertise of others where possible, and come up with a plan to use the feedback and assess whether they have made the necessary changes. The plenary will examine the theory and research supporting the optimal provision of feedback along the continuum of medical education. The plenary will begin with an overview of why feedback is critical to the development of the health care professional, provide an overview of some of the exciting research that is being done in higher and health care professional education, and consider the work still to be done.

WORKSHOP: 2:00 P.M.

THE R2C2 EVIDENCE-BASED MODEL OF FEEDBACK AND COACHING: BUILDING A RELATIONSHIP, EXPLORING REACTIONS AND CONTENT, AND COACHING TO GAIN A CO-CREATED ACTION AND FOLLOW-UP PLAN.

LEARNING OBJECTIVES: Participants will be able to:

1. Describe the evidence and theory that led to the R2C2 feedback and coaching model.
2. Describe the model, the 4 phases, the goals and strategies for each phase.
3. Critique a demonstration of the R2C2 model.
4. Practice using the R2C2 model using a sample report.
5. Discuss how feedback dilemmas might be handled.
6. Discuss the potential for the R2C2 model as an approach within their own educational programs.

DESCRIPTION: Health care professionals have difficulty assessing themselves accurately. The R2C2 model was developed drawing on research and theory from self-assessment, the cognitive domains that influence behavior change, person-centred approaches, commitment to change and implementation science. The workshop will provide an opportunity for participants to learn about the evidence and theory for the model and the phases of the model before viewing a video demonstration of the model and having an opportunity to practice the model with data. The session will conclude with discussions about managing dilemmas that might be encountered using the model and its potential application within their own disciplines.

2018 Health Professions Educational Scholarship Forum
November 27, 2018
Dr. Richard Fagan Lecture Theatre, Room 1M101, Faculty of Medicine
AGENDA

8:00 - 8:30	*Registration and Coffee*
8:30 - 9:00	Welcome, **Dr. Margaret Steele,** Dean of Medicine
9:00 - 10:00	**The Meridith Marks Mentorship Lecture** **Contemporary Feedback: Research and Directions** *Certified/Accredited* **Dr. Jocelyn Lockyer** **Learning Objectives: Upon completion of this session, participants will be able to:** 1. Explain why high quality feedback is critical to the development of health care professionals. 2. Describe the evidence-based literature on feedback provision. 3. Consider new and emerging research directions for optimal feedback discussions and uptake.
10:00 - 10:15	*Break*
10:15 - 11:45	10-Minute Presentations Moderator: Robert Glynn
11:45 - 12:30	*Lunch*
12:30 - 1:45	10-Minute Presentations Moderator: Bev Fitzpatrick
1:45 - 2:00	*Break*
2:00 - 3:30	**Workshop** *Certified/Accredited* **The R2C2 evidence-based model of feedback and coaching: Building a relationship, exploring reactions and content, and coaching to gain a co-created action and follow-up plan.** **Dr. Jocelyn Lockyer** **Learning Objectives**: Participants will be able to: 1. Describe the evidence and theory that led to the R2C2 feedback and coaching model. 2. Describe the model, the 4 phases, the goals and strategies for each phase. 3. Critique a demonstration of the R2C2 model. 4. Practice using the R2C2 model using a sample report. 5. Discuss how feedback dilemmas might be handled. 6. Discuss the potential for the R2C2 model as an approach within their own educational programs.
3:30 - 3:45	*Break*
3:45 - 4:45	Facilitated Poster Sessions (in the Atrium) Moderators: Steve Shorlin, Donnamarie Khalili, & Gerona McGrath
4:45 - 5:00	Closing Remarks and Presentation of Ingram Awards Dr. Vernon Curran, Associate Dean of Educational Development

Accreditation

- This Group-Learning program meets the certification criteria of the College of Family Physicians of Canada and has been certified by the Office of Professional and Educational Development, Memorial University of Newfoundland for up to 2.5 Mainpro+ credits.
- This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada, and approved by the Office of Professional and Educational Development, Faculty of Medicine, Memorial University of Newfoundland. You may claim a maximum of 2.5 hours.

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Pamela Snow, MD, CCFP, FCFP
Associate Professor of Family Medicine
Director, Academic Development - Family Physicians
Office of Professional and Educational Development
Faculty of Medicine, MUN

RCPSC Accreditation Reviewer
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Disclosure

Speakers and planners will be asked to disclose, to the audience, any real or apparent conflict(s) of interest that may have a direct bearing on the subject matter of this program.

Faculty (Certified/Accredited sessions only)
Dr. Jocelyn Lockyer
Cumming School of Medicine
University of Calgary

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ORAL PRESENTATIONS (10 minute format)

Moderator: Robert Glynn
Time: 10:15 - 11:45 am

TIME	PRESENTER(S)	TITLE
10:15	Beverly FitzPatrick	Using Formative Feedback to Teach Pharmacy Students to Write Critical Self-Reflections
10:30	Emily Pye	Writing in Medical Education: A Student Perspective
10:45	Justin Upshall	Improving on Epidural Task Trainers: Combining 3D Printing and the Delphi Method
11:00	Taryn Hearn & Tanis Adey	Comparative Perspectives of the Undergraduate Medical Education Accreditation Process
11:15	Julia Lukewich	Integrating Registered Nurses into Primary Care Across Canada
11:30	Felix Zhou	Do guidelines influence emergency department staff behaviours and improve patient outcomes? Evaluation of a multi-faceted intervention for the implementation of local AECOPD guidelines

Moderator: Bev Fitzpatrick
Time: 12:30 - 1:45 pm

TIME	PRESENTER(S)	TITLE
12:30	Jennifer Liu	Knowledge and Confidence in Performing the Pudendal Block: An Assessment of Newfoundland OBGYN Residents and Physicians
12:45	Noel O'Regan	A program evaluation of an introductory simulation week for anesthesia residents entering the Competency by Design curriculum.
1:00	Lisa Fleet	An Environmental Scan of Canadian Physician Re-Entry, Remediation, & Re-Training Programs
1:15	Lisa Fleet	A Needs Assessment to Support Implementation of the Electronic Medical Record (EMR) in Newfoundland and Labrador
1:30	Diana Gustafson	Digital professionalism at the bedside: Examining the use of digital, social and mobile technologies for self-directed learning

FACILITATED POSTER SESSIONS

Moderator: Steve Shorlin

Time: 3:45 am - 4:45

PRESENTER(S)	POSTER	TITLE
Jennifer Perry	1A	Do You Hear What I Hear?
Charlie Gillis	1B	Developing a Low-cost, Low-technology Male Catheter Insertion Simulator for Undergraduate Medical Students
Jacob Buote	1C	Medical Education & 3D Printing: The Design and Validation of a Simulation Model for Laparoscopic Hysterectomy and Vaginal Cuff Closure - A Research Proposal
Christine Goudie & Jessica Shanahan	1D	Investigating the Efficacy of Anatomical Silicone Models Developed from a 3D Printed Mold for Perineal Repair Suturing Simulation
Nicole Ralph	1E	3D Printing & Medical Education: Developing Simulated Vaginal Models for Pediatric Gynecology Training
Tamer Moaein	1G	A Canadian Perspective of Simulation-Based Skill Attainment in Internal Medicine Residency
Felix Zhou	1H	Can You Teach Yourself Point-of-Care Ultrasound to a Level of Clinical Competency? Evaluation of a Self-Directed Simulation-Based Training Program
Kathleen O'Donnell	1I	Keeping Families Together: Using Simulation to Empower Physicians and Reduce Antenatal Transfers in Rural Newfoundland

Moderator: Gerona McGrath

Time: 3:45 - 4:45

PRESENTER(S)	POSTER	TITLE
Bethany Power & Madison Lewis	2A	Creating a Global Health Tool-Kit: An Indigenous Case Study, For Medical Students by Medical Students
Emily Moores	2B	Point of Care Ultrasound in Undergraduate Medical Education: Where Does It Belong?
Cathy Murray	2D	The Effect of Blended Learning on Medical Student Engagement in Clerkship Thyroid Disease Tutorial
Lucy Smith	2E	Evaluation of Hepatitis C Knowledge Among Medical and Nursing Students at Memorial University of Newfoundland
Robert McCarthy	2F	Assessing Student Satisfaction with Changes to the Oncology Academic Half-Day Curriculum
Wei Tang	2G	Evaluating the Effectiveness of a Case-Based Learning Module on Borderline Personality Disorder for Medical Clerks
Julia Trahey	2H	10 Years After Cameron: Have We Made Gains in Improving Disclosure Practices in Newfoundland and Labrador?

Moderator: Donnamarie Khalili

Time: 3:45 - 4:45

PRESENTER(S)	POSTER	TITLE
Mike Chong	3A	The Med Thread - Podcasting and Pharmacy Education
Christopher Grant	3B	Introduction to Prescription Writing: Online Modules for Medical Students
Dan Doyle	3C	Appropriate Antibiotic Prescribing Module - How to Choose Which Drug to Use
Timothy Brennan	3D	Comparing Repeated Self-Reflective Methods on EPA Performance for Post-Graduate Medical Learners
Jennifer O'Dea	3E	Development of a Wellness Module for PGY-1 Academic Half Day
Melanie Wong	3F	Developing Role Modelling Consciousness and Competence in Psychiatry Residents: Evaluation of a Programme
Jennifer O'Dea	3G	Development of an Interprofessional Care Plan Communication Tool for Pediatric Cerebral Palsy Clinics in Newfoundland and Labrador
Karla Simmons	3H	Using Digital, Social, and Mobile Technologies (DSMTs) For Your Continuing Professional Education

USING FORMATIVE FEEDBACK TO TEACH PHARMACY STUDENTS TO WRITE CRITICAL SELF-REFLECTIONS

Beverly FitzPatrick, Justin Peddle, Tiffany Lee, Terri Genge, Ary Pevida, Amy Clarke, Karina Arnold, *School of Pharmacy*; Carla Dillon, *University of Otago*; Henry Schulz, *Faculty of Education*

ABSTRACT: Oral Presentation (10:15 a.m.)

Purpose: Critical thinking for pharmacy students is essential for when they become practising pharmacists. According to Morrow (2014), critical reflections help to develop critical thinking. We conducted a study with two cohorts of pharmacy students to improve their critical self-reflective skills.

Methods: Students wrote eight self-reflections in an electronic portfolio over four semesters. They received formative feedback in the form of individual written feedback after the second and subsequent self-reflections, but no feedback between the first and second reflections. Students also received whole class explicit formative feedback instruction after the second to seventh reflections. Student learning was determined through quantitative analysis using a rating scale. The results were analyzed using three scales: knowledge, self-assessment, and critical writing. In addition to writing the self-reflections, students wrote about their learning during the study at three different time points: end of second course, beginning of third course, and end of fourth course. Qualitative analysis was conducted to explore the students' understanding of their learning.

Results: Students improved from their first to eighth self-reflections in the three scales. For example, with the knowledge scale, there was no significant difference in means between the 1st and 2nd reflections, p=.787. There was a significant difference between 1st and 3rd (p=.009), and the pattern continued. There was also a significant difference between 2nd and 3rd (p=.027), and the pattern continued. However, the qualitative analysis revealed that while some students thought they improved in their ability to self-assess and think critically (about 68%), not all students valued the formative feedback (only about 52%). However, there was an important distinction between the two cohorts. More students in their first two years of the program valued the self-reflections and formative feedback than did students in their third and fourth years, respectively 24/37 for the first and second year students, while only 16/40 for the third and fourth year students.

Conclusions: Quantitative analysis indicated students improved in their critical thinking and self-assessment skills. Qualitative analysis revealed that not all students believed in the value of the formative feedback. Instructors have continued to use this instructional method in their pharmacy practice courses.

WRITING IN MEDICAL EDUCATION: A STUDENT PERSPECTIVE

Emily Pye, *MD Student;* Diana Gustafson, *Community Health and Humanities*

ABSTRACT: Oral Presentation (10:30 a.m.)

Purpose: The Liaison Committee on Medical Education (LCME) requires that faculties of medicine include specific instruction in written communication skills. This case study, funded by the Medical Education Scholarship Centre, explored medical students' experiences with developing writing competencies. This presentation will report the findings of a survey of medical students that examined the relationship between students' 1) writing self-efficacy, 2) self-regulated learning (SRL) strategies, and 3) attitudes towards writing.

Methods: An online survey was distributed in the fall and winter semester to 320 medical students enrolled in undergraduate medical education at Memorial University of Newfoundland. The four-part survey was constructed using SurveyMonkey and included sections on writing self-efficacy, SRL strategy-use (adapted from a tool created by Purdie and Hattie (1996)), and attitudes towards writing. Recruitment e-mails were sent out a week before and after the 2-minute group information session to selected classes. Data was imported into SPSS and analyzed using descriptive and inferential analyses.

Results: The sample (n=53) consisted of first (n=15), second (n=19), and fourth year (n=19) students. Students ranked their writing competence and SRL strategy use high, yet reported low levels of feedback and writing instruction received from their medical instructors. The use of SRL strategies was positively correlated with perceived writing competence. Students appeared to be divided on the importance of writing in medical education. Some were interested in improving their writing and suggested creating writing resources to understand what is expected of their writing. In contrast, other students believed class time devoted to writing activities was wasteful when there could be more time devoted to "medical" content, discounting writing as a valuable educational tool in medicine.

Conclusion: Student perspectives may inform curricular change, specifically the need to make written communication skills explicit in medical education. The results suggest that workshops to improve discipline-specific writing skills may be welcomed by students. Writing instruction should incorporate context so students understand why effective writing skills are important in clinical practice. More clear and consistent feedback from teaching faculty is also recommended.

IMPROVING ON EPIDURAL TASK TRAINERS: COMBINING 3D PRINTING AND THE DELPHI METHOD

Justin Upshall, *MD Student*; Peter Collins, *Anesthesia*

ABSTRACT: Oral Presentation (10:45 a.m.)

Purpose: Epidural catheterization is reported to be the most difficult skill for a new anesthesia resident to master. Commercially available epidural task trainers are costly, provide limited anatomic variation, and often have poor haptic feedback. An ideal simulator would be economical, customizable, and provide realistic tactile responses. By combining three-dimensional (3D) printing with a modified Delphi method we hope to create a task trainer that approaches these ideals. 3D printing allows for inexpensive, rapid prototyping and customizability. The Delphi method is an anonymous, efficient methodology for achieving expert consensus on a topic.

Methods: This project consists of three phases, the first of which has been completed. The purpose of phase one was to identify the critical elements of an epidural task trainer using a modified Delphi method. It was predetermined that a 2-round modified Delphi method would be used. Eighteen anesthesiologists were recruited via e-mail. The initial survey asked participants to list the elements of an ideal epidural task trainer. In round one, participants were given the list of items created by the group and asked to rate the importance of each item on a 10-point ordinal scale. Means above seven and below three were used to define positive and negative consensus respectively. The results were provided to participants, and items that did not achieve consensus were reassessed in round two.

Results: The initial survey identified 47 items. In round one of the modified Delphi method, 27 of those items achieved positive consensus. The remaining 20 items were reassessed in round two, and four achieved positive consensus. Sixteen items did not achieve consensus, and no items achieved negative consensus.

Conclusion: With phase one of this project completed, we are currently using 3D printing to create prototypes with graded variations of optimizable items. These prototypes will be assessed by the same group of anesthesiologists to determine the optimal prototype for each item. This will allow for the creation of a single prototype with the most optimal grade of each characteristic. In phase three, the non-optimizable items will be integrated and our final product will be experimentally evaluated alongside a commercially available model.

COMPARATIVE PERSPECTIVES OF THE UNDERGRADUATE MEDICAL EDUCATION ACCREDITATION PROCESS

Taryn Hearn, *Psychiatry*; Tanis Adey, *Associate Dean, Undergraduate Medical Education*; Heidi Coombs, *Office of Professional and Educational Development*

ABSTRACT: Oral Presentation (11:00 a.m.)

Purpose: Accreditation is a process by which educational programs undergo extensive peer evaluation of compliance with accepted standards of educational quality. It is fundamental to the delivery of medical education in Canada. This research project compares the perspectives of faculty, staff, and students towards the undergraduate medical education accreditation process.

Methods: This project involved the distribution of a survey to 1650 faculty, staff, and students at the Faculty of Medicine, to gauge their knowledge and opinions of the accreditation process and to identify strengths and limitations of the process. We received 234 responses, including 67 faculty (28.6%), 37 staff (15.8%), and 130 students (55.6%). The response-rate was 14.2%.

Results: 78.6% of respondents (184/234) stated they were not involved in the accreditation process. Analyzed separately, the majority in each cohort stated they were not involved – faculty 62.7%, staff 56.8%, students 93.1%. However, 22% of those respondents (42/184) specified ways in which they are involved in the process, which suggests they are either unfamiliar with what constitutes the accreditation process and/or they undervalue their own contributions. 50% of respondents were unfamiliar with accreditation requirements, the majority being students (75.2%). Analyzed separately, the majority of faculty (73.1%) and staff (70.3%) were familiar with the requirements, while 66.7% of students were unfamiliar.

Conclusion: Although the majority of faculty and staff stated they were not involved in accreditation, the majority are familiar with accreditation requirements. Students are less familiar with, and less involved in, the process. Respondents identified communication and increased student engagement as valuable activities to improve the process.

INTEGRATING REGISTERED NURSES INTO PRIMARY CARE ACROSS CANADA

Julia Lukewich, Michelle Allard, *School of Nursing*; Kris Aubrey-Bassler, *Family Medicine*; Denise Bryant-Lukosius, *School of Nursing*; Ruth Martin-Misener, *Dalhousie University*; Maria Mathews, *Western University*; Marie-Eve Poitras, *Université du Quebec à Chicoutimi*; Ruth Schofield, *McMaster University*; Joan Tranmer, *Queen's University*; Ruta Valaitis, *McMaster University*; Sabrina Wong, *University of British Columbia*; Lisa Ashley, *University of Ottawa*

ABSTRACT: Oral Presentation (11:15 a.m.)

Purpose: Family practice nursing offers a feasible and affordable solution to improve access to primary care, reduce costs, and promote a higher quality of care. There is currently a lack of information regarding the deployment of family practice nurses across Canada and a lack of clarity about their role in primary healthcare teams. There is a need to define family practice nursing competencies to support the integration and optimization of this role within primary care and assess the extent to which these competencies are incorporated into nursing curriculum across Canada. As well, a defined set of competencies will provide a framework to assess the learning needs of family practice nurses.

Methods: An initial draft of competencies will be generated by a panel of key informants and guided by literature related to family practice nursing. A Delphi process will be used to obtain national agreement regarding these competency statements. Once agreement is reached, undergraduate baccalaureate and post-graduate family practice nursing programs will be surveyed to assess the degree to which identified competencies are integrated into these curriculums. Surveys will also be sent to family practice nurses to determine their current learning needs with respect to these competencies.

Implications: The development of family practice nursing competencies in Canada lags behind international work. Although competencies exist at the provincial-level for some family practice nursing education programs, there are no national competencies guiding the education of undergraduate baccalaureate nurses in this practice area. A national approach to family practice nursing competency development is needed to address these gaps. It is expected that the development of family practice nursing competencies will benefit patients, primary healthcare providers, and healthcare systems nationally. With respect to enhancing workforce preparation, family practice nursing competencies will establish expectations for education and curriculum to support more formalized and structured training for this role at an undergraduate-level. Specifically, a defined set of competencies will provide a framework to assess the extent to which Canadian undergraduate programs are integrating competencies within their curricula and identify gaps that need to be addressed.

DO GUIDELINES INFLUENCE EMERGENCY DEPARTMENT STAFF BEHAVIOURS AND IMPROVE PATIENT OUTCOMES? EVALUATION OF A MULTI-FACETED INTERVENTION FOR THE IMPLEMENTATION OF LOCAL ACUTE EXACERBATION OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE GUIDELINES

Felix Zhou, *MD Student*; Kavish Chandra, *Dalhousie University*; Dylan Sohi, *MD Student*; Caitlin Robertson, *University of New Brunswick*; Jacqueline Fraser, Josh Scoville, *Saint John Regional Hospital*; Natasha DeSousa, *UNBC*; Chris Vaillancourt, Paul Atkinson, *Dalhousie University*

ABSTRACT: Oral Presentation (11:30 a.m.)

Purpose: We wished to assess how the implementation of local Chronic Obstructive Pulmonary Disease (COPD) guidelines affects emergency department (ED) staff awareness, knowledge, and use of such guidelines, and patient outcomes, including treatment failure and rates of return to the ED.

Methods: This study was conducted at a tertiary hospital ED. Local COPD guidelines were developed by a quality improvement group. Guidelines were posted in the department and educational sessions were provided for staff. We conducted a retrospective chart review and looked at 1849 patient visits from Dec 2011 to Feb 2012 and Dec 2012 to Feb 2013. All visits with a diagnosis of chronic COPD or Acute Exacerbation of Chronic Obstructive Pulmonary Disease (AECOPD) were included in the study. Data was collected using a standardized abstraction tool and captured exacerbation severity. For non-admitted patients, we recorded 30-day return rates and treatment failures occurring within 30 days of presenting to the ED. Pre- and post-implementation data was analyzed by Fisher's exact tests.

Results: For ED physicians, the survey response rate was 78, 79 and 58% at pre-, post-implementation, and 10-month follow up, respectively. Prior to implementation, 14.3 % (95% CI 4.1-35.5 %) were aware and 0 % (0-18.2 %) used guidelines. After implementation, 90.9 % (71.0-98.7 %) were aware and 81.8 % (60.9-93.3) used guidelines. At 10 months, 100 % (76.1-100 %) were aware and 100 % (82-100 %) used local guidelines. Similar trends were seen among nurses and respiratory therapists. To assess actual guideline use, 130 visits were evaluated: 51 visits pre-implementation, and 79 post-implementation. Prior to implementation, 57 % (43-70 %) received bronchodilators, systemic steroids and antibiotics. Following guideline implementation, 57 % (46-67) received the respective treatments. For patient related outcomes, 86 non-admission patient visits were evaluated: 35 visits pre-implementation, and 51 post-implementation. Prior to guideline implementation, 17 % (8-33 %) failed their initial AECOPD treatment, compared to 10 % (4-21 %) following guideline implementation, and 23 % (12-39 %) returning to the ED in the pre-implementation period while 14 % (7-26 %) returning post - implementation.

Conclusion: Our introduction of local COPD guidelines was successful at increasing awareness, knowledge and use of best practice guidelines among ED staff. At ten-month follow-up, increased awareness, knowledge and use among ED staff was maintained; however, in practice, guideline adherence,

treatment failure, and return rates did not improve significantly after our local guideline implementation. This supports the general trend in the literature showing that passive educational interventions alone are not sufficient to change physician behaviours or improve patient outcomes. While still a relatively new field, knowledge translation initiatives offer a more rigorous and holistic approach to facilitating behavioural change, and may be more effective than traditional passive educational interventions.

KNOWLEDGE AND CONFIDENCE IN PERFORMING THE PUDENDAL BLOCK: AN ASSESSMENT OF NEWFOUNDLAND OBGYN RESIDENTS AND PHYSICIANS

Jennifer Liu, Deanna Murphy, Sean Murphy, *Obstetrics and Gynecology*

ABSTRACT: Oral Presentation (12:30 p.m.)

Purpose: The objectives of this study are to assess the knowledge of both obstetrics and gynecology physicians and residents in Newfoundland and Labrador (NL) on the utilization and administration of the pudendal block. Moreover, the participants' attitude and confidence for this procedure will be explored. Furthermore, the barriers of performing the pudendal block in labour will be identified. Finally, the learning styles of Obstetrics & Gynecology (OBGYN) residents will be studied.

Methods: A prospective audit of OBGYN residents and physicians of NL was conducted during April and May of 2018. The physicians and residents were invited to participate in a paper-based survey which contained three sections. The survey recorded responses in Likert scale, multiple choice and open-ended responses. The data was analyzed with Statistical Analysis System (SAS) software.

Results: The results of the study showed no statistical significance between staff and residents in their formal training for the pudendal nerve block. Moreover, knowledge of the pudendal block technique was not statistically significant between the resident and staff groups. However, the percentage of residents and staff who reported observing a pudendal block in labour was statistically significant ($p = 0.0006$). When asked whether this topic is covered adequately in the residency curriculum, 88% of residents disagreed. Finally, when asked whether the training was adequate to prepare residents/staff to provide the pudendal nerve block in their practice, once again 94% of residents disagreed while 94% of staff felt that they were adequately prepared.

Conclusion: From this study, we were able to conclude that while the textbook knowledge of OBGYN residents and staff physicians is similar, the practical knowledge of pudendal administration on a patient is lacking in residents. Moreover, there is a decline in the provision of the pudendal block for labour analgesia in NL which may partly be due to the staff physicians' perception of its effectiveness. As a result, residents are not receiving adequate exposure to this in their training. A final consequence is the decrease in the confidence of trainees to perform the pudendal block in their future practices. From this study, it appears that a curriculum change is necessary in order to increase resident teaching of the pudendal block.

"SIM WEEK" FOR ANESTHESIA RESIDENTS ENTERING THE COMPETENCY BY DESIGN CURRICULUM

Noel O'Regan, *Anesthesia*

ABSTRACT: Oral Presentation (12:45 p.m.)

Purpose: In 2017, the Discipline of Anesthesia implemented a new Competency by Design (CBD) curriculum. The first phase of implementation involved a Transition to Discipline (TTD) and was intended to orient new residents to the discipline. As part of TTD, faculty members in Anesthesia offered a "Sim Week" to provide a simulation-based introduction to Anesthesia and to ease the transition from student to resident. Sim Week was offered again in 2018. This project involves an evaluation of Sim Week to assess its benefit to learners along with their level of anxiety at the beginning of residency and their confidence in obtaining the CBD-based Entrustable Professional Activities (EPAs).

Methods: Sim Week involved group discussions and five hours of in situ simulation each day. On the first and fourth days, residents participated in a full scenario prior to simulated induction and were asked to assess their competence at managing the scenario. To evaluate the Week, we developed a pre- and post- survey structured around the TTD EPAs and appropriate milestones.

Results: Results of the evaluation survey indicate that Sim Week was beneficial for residents in terms of reducing the stress associated with transition into residency, learning to manage a simulated induction, and obtaining CBE-based EPAs. The residents expressed apprehension at the beginning of Sim Week, but all participants found the event to be valuable. They also reported increased confidence in approaching the operating room and more equipped to navigate the operating room and provide patient care safely and efficiently.

Conclusion: Orientation through Sim Week was useful in transitioning residents into the Anesthesia residency program. Residents felt more confident entering the operating room, less apprehensive about residency, and more effective in providing patient care.

AN ENVIRONMENTAL SCAN OF CANADIAN PHYSICIAN RE-ENTRY, REMEDIATION, AND RE-TRAINING PROGRAMS

Lisa Fleet, Vernon Curran, *Office of Professional and Educational Development*

ABSTRACT: Oral Presentation (1:00 p.m.)

Purpose: Newfoundland and Labrador has not historically had a program to assess physicians who have been out of practice for a defined length of time and who wish to return to active practice. An environmental scan conducted in 2017 explored how other North American jurisdictions support physicians who require re-entry, remediation, and/or re-training to return to practice.

Methods: Mixed methods: literature review; online survey-questionnaire; website reviews.

Results: Peer-reviewed studies focus on existing programs and some guiding principles for establishing programs. Eight (n=8) of 12 provincial and territorial medical regulatory authorities and n=6 of 16 continuing professional development (CPD) offices responded to the survey. The majority of regulatory authorities report three years as the threshold for inactivity before an assessment is required. The majority of respondents do not have formalized programs. Assessment is tailored to physicians' needs, with reasons for absence and CPD considered as part of process. Two (n=2) CPD offices report involvement in re-entry, remediation, and re-training. Best practices reported by all respondents include ongoing collaboration amongst provincial stakeholders and the ability to develop individualized approaches. Challenges include a lack of standardized tools and processes, as well as a lack of human resources to assess and/or supervise physicians in need.

Conclusion: It is suggested that the need for programs which support a physician's return to practice is going to increase for various reasons, including physician shortages. As a province with an ongoing physician shortage, NL would greatly benefit from a formalized and standardized process to facilitate a physician's timely return to practice.

A NEEDS ASSESSMENT TO SUPPORT IMPLEMENTATION OF THE ELECTRONIC MEDICAL RECORD IN NEWFOUNDLAND AND LABRADOR

Lisa Fleet, *Office of Professional and Educational Development*; Pamela Snow, *Family Medicine*, Vernon Curran, *Office of Professional and Educational Development*

ABSTRACT: Oral Presentation (1:15 p.m.)

Purpose: In 2017/2018, the Office of Professional Development (OPD), Faculty of Medicine, Memorial University collaborated with the Newfoundland and Labrador Centre for Health Information (NLCHI), the Newfoundland and Labrador Medical Association (NLMA), and eDOCSNL to explore physician and administrator perceptions and experiences of using an electronic medical record (EMR) and specifically, the provincial EMR (Med Access).

Methods: Mixed-methods: literature review; environmental scan; online survey-questionnaire (with users/non-users of Med Access); and semi-structured interviews with administrators/practice advisors.

Results: Forty-seven (n=47) current Med Access users responded to the survey (response rate 35.3%). There were n=58 non-Med Access user respondents and n=2 interview respondents. The majority of survey respondents, regardless of EMR experience, recognize the potential value of using an EMR in practice. Benefits include continuity of patient care, improved quality of patient care, access to patient resources, improved patient safety, and improved efficiency and workflow. Current Med Access users report concerns related to patient workflow and patient care. Non-Med Access users report perceived challenges around workload and increased time for data entry. Interview respondents suggest that physicians tend to underestimate the adoption process and potential learning curve of using an EMR in practice.

Conclusion: The data collected highlighted the perceived and unperceived educational needs of physicians related to using Med Access in practice and supported the development of a CPD strategy to address these needs. Some suggestions for training included: the provision of templates, referral and consultation tools; and ongoing support for workflow and transition.

DIGITAL PROFESSIONALISM AT THE BEDSIDE: EXAMINING THE USE OF DIGITAL, SOCIAL AND MOBILE TECHNOLOGIES FOR SELF-DIRECTED LEARNING

Diana L. Gustafson, *Community Health and Humanities*; Heather Lannon, *Royal Roads University*; Vernon Curran, Karla Simmons, Lisa Fleet, *Office of Professional and Educational Development*; Chenfang Wang, Mayhar Garmsiri, *Graduate Students*; Lyle Wetsch, *Business Administration*

ABSTRACT: Oral Presentation (1:30 p.m.)

Purpose: The use of digital, social, and mobile technologies (DSMTs) is increasing among health and social services professionals. DSMTs refers to a range of personal-use, mobile devices (e.g., smartphones, tablets, and laptop computers) and social media networks (e.g., Twitter, YouTube). DSMTs offer new avenues to support self-directed learning (SDL) and continuing professional education. Flexibility is one of the benefits of DSMTs, meaning that informal learning can take place anytime and anywhere there is internet access: at the bedside or other clinical setting, in a classroom or office, in the community, and at home. Extending learning beyond the traditional classroom into workplace settings also raises concerns about digital professionalism.

Methods: Telephone interviews were conducted with a purposive sample of a total of 55 nurses, social workers, physicians, and pharmacists from across the four regional health authorities in NL. Interviews were recorded, transcribed, and imported into N-Vivo 10. Data was analyzed using thematic analysis to identify patterns in participant reports.

Results: The paper reports on the experiences reported by health and social service professionals using DSMTs to support SDL in the workplace and how the use of technology is perceived by clients and colleagues.

Conclusion: Adult health learning theory is a critical approach to informal learning and will be used to theorize issues of power and resistance revealed in professionals' experiences using DSMTs to engage in SDL in the workplace. This framing has the potential to identify those generative mechanisms that facilitate or impede SDL for health and social service professionals working in the ever-changing digital environment.

DO YOU HEAR WHAT I HEAR?

Jennifer Perry, *MD Student*

ABSTRACT: Poster (1A)

Purpose: The research for best practices in health literacy indicate that there are several key techniques to help increase patient understanding, which is linked with increased adherence to treatment plans and better health outcomes. These key techniques include: avoiding the use of medical jargon; using the 'teach back' method to assess patient understanding; summarizing need-to-know or need-to-do information in 3 points or less; and consistently speaking clearly, slowly, and with an appropriate volume during patient interactions (Coleman, 2013). With these recommendations in mind, the purpose of this study was to determine if medical students are inherently using the some of the skills recommended to improve understanding when communicating with patients.

Methods: This research involved an exploratory descriptive approach based on evaluation forms completed by Standardized Patients (SPs) after each history-taking encounter with medical students in the Undergraduate Medical Studies Communication Skills Course (CSC). The form consisted of four questions related to the students' use of the four key techniques related to improving communication and understanding between physician and patient. Data was collected for a period of five months: September–November and January. In addition, following the completion of the CSC, the medical students were surveyed to examine their self-reported use of the same key techniques and their confidence levels in using those techniques.

Results: Results indicate that the percentage of observed students using medical jargon during their interviews with SPs was minimal to non-existent. The chi square analysis ($p= 0.732$) indicated no significant relationship between the month of response and the use of medical jargon while interviewing standardized patients. However, there was some variability in the use of 'teach back' throughout the course. The percentage of observed students using this technique was 33.3% (September), 50% (October), 32.4% (November), and up again to 41.5% (January). Chi square analysis indicated no significant difference at the $p<.05$ level ($p=.709$) between the time periods during which SPs rated the use of this communication technique. In terms of providing a 3-point summary, in September 58.3% of the students evaluated were reported to have used this technique, 63.3% in October, and the percentage jumped to 83.3 and 83% respectively in November and January. The chi square analysis did suggest there was a significant relationship between the use of the 3-step summarizing technique and progression through the communications course with $p<.05$ ($p=.034$). Finally, the percentage of observed students using clarity, appropriate volume and speed while interviewing the SPs was 100% for September and October, and dropped just slightly for November and January to slightly over 98%. The chi square analysis of this communication technique over the course of the study ($p= 0.894$).

Conclusion: The results indicate that the technique to speak clearly, with appropriate volume and speed, is one in which the first year medical students in this study were proficient from the start of their communication course. Based on the data collected the same could be said for the technique to avoid the use of medical jargon during communications with patients. However, this technique deserves further study with students who are further along in their medical studies, and therefore more familiar with medical concepts. Results do not clearly indicate that students are regularly using the techniques of 'teach back' and the 3-point summary. Students also have lower self-reported confidence in effectively using these two techniques. This data suggests that it may be useful to include explicit instruction in these techniques within the first year communication course to increase students' frequency of use and confidence levels with using these techniques. The inclusion of confidence questions in the survey was based on the fact that these are communication techniques are not explicitly taught within the CSC, but they are felt to be directly linked to effective communication with future patients. If students do not feel confident in their ability to identify low-literacy patients, they are less likely to feel they have the skills to effectively communicate with them, therefore increasing the difficulty in bridging the gap in communication between patients and healthcare providers. This could be an area for future curriculum enhancements.

DEVELOPING A LOW-COST, LOW-TECHNOLOGY MALE CATHETER INSERTION SIMULATOR FOR UNDERGRADUATE MEDICAL STUDENTS

Charlie Gillis, *MD Student*; Nicole Bishop, Greg Walsh, Adam Dubrowski, *MUN Med 3D*

ABSTRACT: Poster (1B)

Purpose: For novice learners, 3D printed simulation models can be just as effective as similar high-fidelity models, but have the benefits of being inexpensive, anatomically correct, portable, and rapidly produced as needed. In urinary catheter insertion, inexperienced users constitute a high percentage of urethral trauma in the hospital setting, with as high as 75% of comorbidities related to insertion performed by interns. Simulation training can help learners feel more confident, shorten the learning curve for difficult procedures, and provide a safe learning environment for novices to make and learn from mistakes. This project aims to involve two groups of students, medicine and nursing, to develop and refine a new catheter insertion model.

Methods: Undergraduate medical and nursing students will be asked to participate in the study during the fall semester of 2018. The simulation models will be included as part of existing nursing training in catheter insertion. The model will be set up in nursing practice labs along with the MM3D "Rapid Product Evaluation" surveys, designed to assess the realism and overall use of the simulator. This information is collected anonymously for the purposes of improving the existing iteration of the simulator, and provide some validation for the model itself. Medical students will assess the simulation model at a Surgery Interest Group simulation night, where students will be taught about the procedure and then have time to practice with the models. Surveys will be distributed and collected in the same fashion as the nursing curriculum.

Preliminary Findings: For an initial prototype catheter model, there was mostly positive feedback from 14 undergraduate medical trainees who tested the simulation and completed surveys. Most individuals felt that using the model would be beneficial to at least familiarize students with the steps of the procedure before the increased expectation to perform in a structured clinical setting. This was reflected in the feedback, as all 14 participants chose either "agree" or "strongly agree" for the following four statements: The simulation was an accurate anatomical representation, they would prefer learning on this simulation model before performing this procedure, they would recommend this model to other learners, and they found this model beneficial overall. As students currently receive no training in catheter insertion before performing this procedure, this model serves as an inexpensive, easily produced.

Next Steps: In evaluating students' responses to the use of this catheter simulation model, the results can be used to inform their future use in an undergraduate medical or nursing curriculum. This is an ideal project from an interprofessional educational perspective, as the development of 3D simulations for both nursing and medical undergraduate students facilitates a collaborative learning experience from one source. There is the potential for similar future simulation or 3D projects in the future, involving both the faculties of medicine and nursing, which would benefit from the results obtained in this study.

MEDICAL EDUCATION AND 3D PRINTING: THE DESIGN AND VALIDATION OF A SIMULATION MODEL FOR LAPAROSCOPIC HYSTERECTOMY AND VAGINAL CUFF CLOSURE - A RESEARCH PROPOSAL

Jacob Buote, Nicole Ralph, MD *Students*; Sean Murphy, Deanna Murphy, *Obstetrics and Gynecology*; Christine Goudie, *MUN Med 3D*

ABSTRACT: Poster (1C)

Purpose: Competency in advanced laparoscopy is increasingly expected of obstetrician-gynecologists. One of the obstacles in obtaining this competency is a relative lack of frequent and early exposure to advanced procedures, such as laparoscopic hysterectomy. Simulation offers a low-stakes means of skill development outside of the OR, but there are few studies on its use for laparoscopic hysterectomy. The use of 3D printing for simulation has shown promise in other surgical specialties, but has not yet been described for gynecological surgeries. The aim of this study is to use 3D printing to develop a validated, realistic and customizable simulation model for laparoscopic hysterectomy that allows colpotomy and vaginal cuff closure.

Methods: We propose a single-centre observational study with staff and resident physicians in obstetrics and gynecology at tertiary care centre. The study will have two phases: model development and validity testing. Currently, model development is being carried out in collaboration with the 3D team, and a first iteration of a model uterus, cervix and vagina with cuff has been developed. Suggested alterations to anatomical structure and functionality of the model was provided to the 3D team, and the second iteration is now under development. Once the model is deemed satisfactory, it will be placed in a box trainer on which participants will perform pre-determined laparoscopic tasks. Performances will be captured by video and scored by two gynecologists using the validated Global Operative Assessment of Laparoscopic Skills scale. Participants will also be asked to rate the realism of the model.

Next Steps: We anticipate that the second iteration of the model will be satisfactory to trial functionality, at which time we plan to seek feedback on model anatomy and function from gynecologists trained in minimally-invasive surgery. If deemed necessary based on this feedback, we would proceed with development of a final iteration that would be used for the validity testing phase of the study. We hope to demonstrate that three-dimensional printing can offer residents in obstetrics and gynecology with a realistic and customizable model on which to practice laparoscopic hysterectomy, including colpotomy and cuff closure.

INVESTIGATING THE EFFICACY OF ANATOMICAL SILICONE MODELS DEVELOPED FROM A 3D PRINTED MOLD FOR PERINEAL REPAIR SUTURING SIMULATION

Christine Goudie, *MUN Med 3D*; Jessica Shanahan, Atamjit Gill, *Obstetrics and Gynecology*; Adam Dubrowski, *MUN Med 3D*

ABSTRACT: Poster (1D)

Purpose: There is a scarcity of affordable, validated, standardized, and anatomically correct silicone perineum models. The purpose of this technical report is to describe and validate evidence for a perineum repair model created from a 3D printed mold for training and skills maintenance.

Methods: Twelve silicone perineum models were produced from a 3D printed mold, for use during a one-hour workshop at the Rural and Remote Conference by 16 Obstetrics and Gynecology residents and practicing rural physicians, and four facilitators. At the end of the workshop the participants were asked to rate the perceived realism and educational effectiveness as compared to animal models.

Results: The overall workshop participant feedback was positive, noting that the models provided more realistic visualization for the suturing simulation of 1st and 2nd degree perineal injuries.

Conclusion: Silicone perineum models, created from a 3D printed mold, are a more anatomically accurate way to train residents and maintain clinical skills in perineal repair, as compared to pre-existing tools such as beef tongues and synthetic sponges, currently used in Obstetrics and Gynecology simulation-based medical education.

3D PRINTING & MEDICAL EDUCATION: DEVELOPING SIMULATED VAGINAL MODELS FOR PEDIATRIC GYNECOLOGY TRAINING.

Nicole Ralph, Jacob Buote, *MD Students*; Christine Goudie, Adam Dubrowski, *MUN Med 3D*; Deanna Murphy, Sean Murphy, *Obstetrics and Gynecology*

ABSTRACT: Poster (1E)

Purpose: Pediatric and Adolescent Gynecology (PAG) is a subspecialty of Obstetrics and Gynecology focused specifically on the care of children and adolescents. This demographic differs from the adult population as they present with unique pathologies, have different anatomical variants, and are often challenging to examine. Despite this, residency programs in Canada have identified a pervasive lack of exposure to PAG during academic training. Fortunately, 3D printing provides an affordable way to design and construct models for use in simulation based medical education to provide a safe and effective environment, within which the development of these skills may be fostered. The aim of this study is to employ 3D printing technology to develop a vaginal training model in PAG that addresses a potential lack of patient exposure and enables learners to develop important skills including basic examination, vaginoscopy, and hymenectomy.

Methods: This study is to be completed with staff and resident physicians in the specialty of Obstetrics and Gynecology. The first phase of model development is currently in progress and is to be completed in collaboration with a research assistant within the MUN MED 3D printing team. Vaginal models at various developmental phases will be constructed. Molds will be 3D printed, from which silicone models will be produced, which include realistic external genitalia and vaginal canals as well as anatomical variants (e.g. imperforate hymen) to simulate patient encounters. Phase two of this study will involve establishing validity of the model during dedicated resident simulation labs. Residents and staff physicians will be asked to complete a qualitative questionnaire that asks participants to assess the model on measures of face validity including appearance and functionality during simulated procedures.

Next Steps: This study is currently in progress as the models are undergoing development for future testing. This development is being carried out in collaboration with staff Obstetrician/Gynecologists and representatives from MUN MED 3D. Once the initial models are completed, we will proceed to the second phase of this project which involves validity testing by Obstetrician/Gynecology residents of various postgraduate levels in a simulated skills session. We hope to demonstrate the value of integrating 3D printing technology and simulation into medical education initiatives in the field of PAG.

A CANADIAN PERSPECTIVE OF SIMULATION-BASED SKILLS ATTAINMENT IN INTERNAL MEDICINE RESIDENCY

Tamer Abdel Moaein, Kirsty Tompkins, Natalie Bandrauk, *Medicine*

ABSTRACT: Poster (1G)

Purpose: The purpose of this pilot project was to: 1) appraise the status and impact of existing simulation training on procedural skill performance; and, 2) identify factors that might interfere with skill acquisition, consolidation, and transferability.

Methods: An electronic bilingual web-based survey was designed and administered through SurveyMonkey. It consisted of a mix of closed-ended, open-ended, and check list questions to examine the attitudes, perceptions, experiences, and feedback of internal medicine (IM) residents. The survey has been piloted locally with a sample of five residents. After making any necessary corrections, it will be distributed via e-mail to the program directors of all Canadian IM residency training programs, then to all residents registered in each program. Participation will be voluntarily and to keep anonymity, there will be no direct contact with residents and survey data will be summarized in an aggregate form. SPSS will be used for data analysis and results will be shared with all participating institutions. The survey results will be used for display and presentation purposes during medical conferences and forums and might be submitted for publication. All data will be stored within the office of internal medicine program at Memorial University for a period of five years. Approval from the Health Research Ethics board (HREB) of Newfoundland and Labrador has been obtained.

Results: Residents confirmed having simulation-based training for many of the core clinical skills, although some gaps persist. There was some concern regarding the number of sim sessions, lack of clinical opportunities, competition by other services and lack of bed side supervision. Some residents used internet video to fill their training gaps and/or increase their skill comfort level before performing clinical procedure. Resident feedback included desire for more corrective feedback and more sim sessions per skill (Average 2-4 sessions).

Conclusion: This study is anticipated to provide data on current practices for skill development in Canadian IM residency training programs. Information gathered will be used to foster a discourse between training programs including discussion of barriers, sharing of solutions and proposing recommendations for optimal use of simulation in the continuum of procedural skills training.

CAN YOU TEACH YOURSELF POINT-OF-CARE ULTRASOUND TO A LEVEL OF CLINICAL COMPETENCY? EVALUATION OF A SELF-DIRECTED SIMULATION-BASED TRAINING PROGRAM

Fraser Mckay, Dalhousie University; Felix Zhou, MD Student; David Lewis, Jacqueline Fraser, Paul Atkinson,
Dalhousie University

ABSTRACT: Poster (1H)

Purpose: The primary goal of our study was to assess the effectiveness of a self-directed simulation-based training program for medical students, in terms of achieving competency in basic Point-of-Care Ultrasound (PoCUS) scans.

Methods: Fourteen second-year medical students with no prior ultrasound experience were provided access to online study modules created by SonoSim ultrasound training solutions (SonoSim, Santa Monica, CA, US), covering ultrasound theory and methodology, and attended a two-hour introductory session where they were introduced to the study protocol, simulation equipment, and software. Participants then undertook self-directed ultrasound simulation training throughout the year, using the CAE Vimedix PoCUS simulator (CAE Healthcare, Sarasota, FL, US) and the SonoSim ultrasound training solution system. Upon reaching 10 (and 25) scans in each of the four categories (cardiac, abdomen, aorta, and pelvic), a triggered assessment was arranged in which participants scanned a live volunteer under the direct supervision of PoCUS-certified physicians. The physicians scored the participant attempts in terms of image acquisition, interpretation, and clinical understanding. No feedback was provided to the participants. Following the study, participants submitted feedback regarding the design of the study and were asked to rank their preferred training program protocols out of a provided list of five different options.

Results: At the first triggered assessment (after completing only 10 scans in each category), four out of 14 participants were scored as competent in the aorta scan, two out of 14 participants were competent in the pelvic scan, and none of the participants were competent in both the cardiac and abdominal scans. Only nine out of 14 participants completed the second triggered assessment (after completing 25 scans in each category). At the second assessment, only three participants were scored as competent in the aorta scan, two participants were competent in the cardiac scan, and one participant was competent in the pelvic scan. None of the 14 learners completed the final phase of the training and assessment protocol. Feedback following the termination of the study showed that none of the participants supported continuing the study protocol as designed originally, and the preferred study design consisted of a full-day introductory course with live models and simulation, followed by self-directed learning with simulation and live models until 50 scans in each category were achieved.

Conclusion: We were unable to demonstrate the achievement of competence in PoCUS in medical learners engaged in our combined self-directed simulation-based training program. This is in contrast to the considerable literature supporting self-directed learning and simulation-based learning for other skills. Feedback from faculty, curriculum integration, and alignment with clinical experience may be beneficial.

KEEPING FAMILIES TOGETHER: USING SIMULATION TO EMPOWER PHYSICIANS AND REDUCE ANTENATAL TRANSFERS IN RURAL NEWFOUNDLAND

Kathleen O'Donnell, *MD Student*; Anne Drover, *Pediatrics*

ABSTRACT: Poster (1I)

Purpose: A 2012 study revealed that rural Newfoundland physicians considered themselves to be less competent and confident in their neonatal resuscitation skills in comparison to their urban counterparts due to their lack of practice, both real and facilitated (i.e. simulation). This lack of confidence is reflected in the high antenatal transfer rate from rural Eastern Newfoundland facilities to the Health Sciences Centre (HSC) in St. John's. All secondary and tertiary health care facilities within Eastern Newfoundland are equipped to manage most obstetrical issues that occur in women that are at least 35 weeks pregnant, yet between 2012 and 2014, nearly half (43%) of all antenatal transfers from Eastern Newfoundland to the HSC were women who were 35 weeks (or more) pregnant. There is an ample amount of evidence to show that simulation improves physician competence in neonatal resuscitation, but very few studies have investigated whether or not simulation improves confidence, despite the fact that the literature shows that confidence is just as important as competence for physicians when deciding whether or not they should transfer pregnant patients. Therefore, our goal was to determine if simulation could improve not only physician competence, but also confidence.

Methods: To test this, we would ideally provide regular (quarterly), simulation-based neonatal resuscitation training sessions to rural Eastern Newfoundland family physicians over a two year period to see if our simulation sessions improved physician confidence, and as a consequence, resulted in fewer antenatal transfers. However, due to resource constraints, we instead compared first year family medicine residents' confidence in neonatal resuscitation before and after a quick (45 min), simulation-based training session on umbilical venous catheterization (UVC), a key skill in neonatal resuscitation.

Results: Our results showed that first year family medicine residents' confidence in delivering/caring for neonates born at 35 weeks or more, in a rural setting, had significantly improved with our simulation-based training session.

Conclusion: Based on this, it is not unreasonable to suggest that regular, simulation-based training could improve rural family physicians' competence and confidence, which would result in fewer antenatal transfers, allowing families to stay together during this special time.

CREATING A GLOBAL HEALTH TOOL-KIT: AN INDIGENOUS CASE STUDY, FOR MEDICAL STUDENTS BY MEDICAL STUDENTS

Emily Bolt, Lindsay Noonan, Bethany Power, Madison Lewis, *MD Students*

ABSTRACT: Poster (2A)

Purpose: The current Indigenous curriculum in medical school has been in the forefront of education and is on the up-rise. To supplement the teaching already given to students our goal was to add competency-based learning by creating an evidence based case study.

Methods: We used historical data and consulted professionals in the area.

Results: We created a general case to create discussion surrounding the medicinal, social, and environmental aspects that affect the health of Indigenous populations in Canada. The case will raise awareness, celebrate culture, and provoke thought on changes that can be implemented.

Conclusion: After talking to students they felt that their education in the area was lacking and they appreciated extra practice in a self-directed fashion to apply the skills they had already learned and discuss and investigate themselves.

POINT OF CARE ULTRASOUND IN UNDERGRADUATE MEDICAL EDUCATION: WHERE DOES IT BELONG?

Emily Moores, *MD Student*; Leen Naji, Cinnamon Barone, Owen Kavanagh, Jason Profetto, McMaster University; Gillian Sheppard, *Emergency Medicine*

ABSTRACT: Poster (2B)

Purpose: Point of care ultrasound (PoCUS) is portable ultrasound technology that can be used at the bedside to diagnose medical conditions and provide visual guidance for procedures. Physicians from many disciplines have been using PoCUS for over twenty years. Given that PoCUS is becoming a requirement of residency training programs and has proven utility in clinical practice to improve patient outcomes, educators are beginning to introduce PoCUS into undergraduate medical education. The goal of this literature review is to provide curriculum developers and teachers with insight into what is currently being done to teach and evaluate PoCUS both in Canada and worldwide. To achieve this, we surveyed Canadian medical schools and conducted a comprehensive search of the literature to summarize current methods of teaching and evaluating PoCUS used by medical schools.

Methods: A systematic search was employed using key terms to retrieve 141 relevant titles. Titles and abstracts were screened using a priori established inclusion criteria, yielding a total of 107 studies, from 70 institutions worldwide, which are summarized in this review. PoCUS educators at each of the 17 Liaison Committee on Medical Education (LCME) accredited Canadian medical schools were contacted by email to determine the current state of PoCUS education at the undergraduate level.

Results: PoCUS has been introduced at variable intervals in undergraduate medical curricula, with no universal approach. At the pre-clerkship level PoCUS is taught within both anatomy and clinical skills curricula. At several institutions PoCUS teaching is solely extracurricular. At present, instructors of all levels and backgrounds teach PoCUS, including clinicians, non-MD faculty, students, and residents. Evaluation of PoCUS is widely varied, and there is no data to determine how best to evaluate PoCUS at this level. Commonly encountered barriers to introducing PoCUS into undergraduate curriculum were lack of access to equipment and teaching space due to cost, and lack of trainer and available faculty.

Conclusion: PoCUS is being introduced to medical students in a variety of contexts, to varying degrees and is being evaluated in multiple ways. If PoCUS is deemed to be an important skillset for undergraduate medical students, the heterogeneity of approaches identified in this report may be perceived as both an asset and a challenge for program developers planning on incorporating PoCUS into their curriculum. In the future, studies investigating superiority in specific teaching methods or modes of evaluation are needed.

THE EFFECT OF BLENDED LEARNING ON MEDICAL STUDENT ENGAGEMENT IN CLERKSHIP THYROID DISEASE TUTORIAL

Cathy Murray, *Medicine*

ABSTRACT: Poster (2D)

Purpose: To examine if a blended learning environment with the addition of an online module to the face to face tutorial on thyroid disease in the phase 4 (clerkship) internal medicine teaching session improved student engagement and knowledge acquisition.

Methods: The tutorial was restructured to a blended learning module from a traditional tutorial. An online module was developed to contain background information. It was available for students to complete prior to class. The face to face tutorial was revised to contain clinical cases with questions for discussion. A survey was used to examine the students' perception of the blended learning exercise and a multiple choice post-test was used to examine student knowledge of thyroid disease. This post-test was administered to the prior rotation of students as a control group.

Results: The students rated the blended learning tutorial a 4.1/5 ± 0.6 for the statement that the online module helped to prepare them for the in-class session and proved to be an effective use of their time. The students rated the module 3.9/5 ± 0.7 for improving class participation and making class time more productive. There was no difference in post-test scores between the blended learning and control groups. With blended learning, the post-test score was 5.5/6 ± 0.5 if the module was completed compared to 4.9/6 ± 1.1 if it was not completed.

Conclusion: Blended Learning was perceived favorably by those who completed both components. Knowledge was not affected by the implementation of blended learning compared to the traditional tutorial.

EVALUATION OF HEPATITIS C KNOWLEDGE AMONG MEDICAL AND NURSING STUDENTS AT MEMORIAL UNIVERSITY OF NEWFOUNDLAND

Lucy Smith, *MD Student*; Rod Russell, *Biomedical Sciences*

ABSTRACT: Poster (2E)

Purpose: To assess the level of Hepatitis C knowledge and awareness among current medical and nursing students at Memorial University of Newfoundland (MUN). To advocate for better training and education on Hepatitis C knowledge among healthcare trainees.

Methods: An electronic questionnaire containing 10 multiple choice questions assessing knowledge and awareness of Hepatitis C was distributed via email to all current medical (319) and nursing students (260) at MUN for voluntary response during the month of September 2017.

Results: Total of 88 responses collected with no incomplete responses (electronic survey did not permit individual questions to be skipped). 57 medical students and 30 nursing students responded (64%/35%). Response rate of 17.9% (57/319) among medical students and 11.5% (30/260) nursing students, for a total response rate of 15.0%. Mean score is 24% (2.2/9), with 90% of the respondents (79/88) answering less than half the questions correctly. 31% (27/88) of the responders are 1st year medical students with a mean score of 22%.

Conclusion: While acknowledging the limited sample size (88) of this study and appreciating the fact that 41% of the respondents were first year medical or nursing students, it is clearly evident that Hepatitis C knowledge and awareness is low among healthcare trainees, and can be expected to be even lower among the general public. Healthcare professional trainees are expected to have a better knowledge base of Hepatitis C than the general population and increasing their awareness of this disease early in their education could have a profound impact on improving the diagnostic rate of Hepatitis C later in their established careers. This study shows that better educational efforts on the topic of Hepatitis C are warranted at the undergraduate level as well as the general public. It is evident that Hepatitis C has been acting as a low profile assassin; therefore, advocacy for increased awareness and training effort among both the general public and healthcare professionals will be key to stopping this silent epidemic.

ASSESSING STUDENT SATISFACTION WITH CHANGES TO THE ONCOLOGY ACADEMIC HALF-DAY CURRICULUM

Robert McCarthy, *MD Student*; Melanie Seal, Suzanne Drodge, Jonathon Greenland, Kara Laing, Terri Stuckless, John Thoms, *Oncology*

ABSTRACT: Poster (2F)

Purpose: The internal medicine core clerkship rotation for third-year medical students at Memorial University of Newfoundland involves a weekly academic half-day (AHD), each focusing on core knowledge from different subspecialties. The AHD in oncology is comprised of four short presentations that each introduce key concepts in the four most common cancer sites, namely breast, lung, colorectal and prostate. Based on feedback from students, areas of potential improvement in the delivery of information were identified. The purpose of this project is to assess student satisfaction with changes made to the oncology AHD curriculum.

Methods: A working group comprised of six faculty members affiliated with the Discipline of Oncology was formed. Formal objectives were created based around the CanMEDS Competency Framework, and lectures were re-formatted to be consistent with these new objectives. Narrative feedback from students was collected using a written survey, along with course evaluations, which were used to guide changes to the lecture content. Following revision, another cohort of third-year medical students attended the lectures and the feedback for both sessions was compared to identify common themes among narrative responses.

Results: Overall, 31 students completed the survey [78%] with 15 students providing feedback for lectures from the initial curriculum and 16 providing feedback on the new format. Common themes across both cohorts included appreciation for lectures that were interactive and those that integrated clinical cases among the content. Many students in both groups commented on time restraints as an area for improvement. When comparing both groups, students in the earlier group more often requested generalized approaches as opposed to specific details and, with the new lectures, the content was more often perceived as appropriate for the learners' level. Requests to simplify lectures were still present, especially regarding the use of data and figures from clinical trials.

Conclusion: The use of a survey tool that collects narrative responses from students can play an important role in evaluating the delivery of medical curricula. In this case, student responses regarding appropriateness, as well as amount, of content were more favourable following the implementation of changes based on student feedback from an oncology academic half-day

EVALUATING THE EFFECTIVENESS OF A CASE-BASED LEARNING MODULE ON BORDERLINE PERSONALITY DISORDER FOR MEDICAL CLERKS

Wei Tang, Taryn Hearn, *Psychiatry*

ABSTRACT: Poster (2G)

Purpose: At Memorial University of Newfoundland (MUN), clinical clerks on psychiatry rotations attend regular teaching seminars taught by residents using Case-Based Learning (CBL). It is hypothesized that CBL helps medical trainees to rehearse and apply clinically relevant information which leads to better retention of this information. It remains unclear if CBL is suitable for teaching personality disorders. The purpose of this study is to investigate the effects of CBL on student learning in psychiatry clerkship rotations.

Methods: Third-year clinical clerks on psychiatry rotations were recruited to receive a one-hour CBL-based seminar on Borderline Personality Disorder (BPD). Pre- and post-teaching surveys were completed to assess their comfort levels on managing patients with BPD using a 5-point Likert scale. Bonferroni-adjusted two-tailed paired sample t-tests were performed to detect any differences in response.

Results: All of the twenty-two study participants (n=22) completed the pre- and post-teaching surveys. On the post-teaching feedback form, the mean score on "feeling enhanced comfort in working with patient who have BPD" was 4.59 (SD=0.503). Compared to pre-teaching surveys, the mean score on the comfort level in conducting a diagnostic interview for BPD increased by 1.762 (SD=1.044, $p<1.97*10\text{-}7$). Self-ratings on adequacy of theoretical training in working with patient with BPD increased by 1.909 (SD=0.921, $p<3*10\text{-}9$). Ratings of preference of CBL over didactic lectures increased by 0.409 (SD=0.503, $p<0.001$).

Conclusion: Findings from this study strongly suggest that CBL can be an effective method in teaching medical clerks on personality disorders.

10 YEARS AFTER CAMERON: HAVE WE MADE GAINS IN IMPROVING DISCLOSURE PRACTICES IN NEWFOUNDLAND AND LABRADOR?

Julia Trahey, *Medicine*; Heidi Coombs, *Office of Professional and Educational Development*

ABSTRACT: Poster (2H)

Purpose: On 3 July 2007, the Government of Newfoundland and Labrador established the Commission of Inquiry on Hormone Receptor Testing with the Honourable Margaret A. Cameron as Commissioner. The Cameron Inquiry exposed a systems failure in which hundreds of mistakes with hormone receptor tests were made, but the health authority had no crisis management plan and failed to communicate effectively with patients, the public, or government. Significant improvements have been made since the Cameron Inquiry. Cameron recommended training in disclosure for health professionals and the regional health authorities invested in such training opportunities. However, disclosing an adverse event to a patient or patient's family remains one of the most difficult professional tasks that physicians perform. Physicians do not have enough training or practice in having these difficult conversations, and therefore are often not confident with their communication skills. This lack of training and confidence are significant barriers to respectful and effective disclosure. In addition, many disclosures occur without guidance from an organizational expert, such as a representative from Quality and Risk Management (QRM). This project explores current disclosure process from the perspectives of the multiple players involved, including QRM personnel, practicing physicians, and physicians in leadership positions, as well as the potential role of trainees in disclosure processes.

Methods: This research project involved a cross-sectional survey and two focus groups (one with QRM personnel and one with physicians in leadership). Questions focused on the barriers and facilitators of disclosure, the process of disclosure, the quality of disclosure discussions, and knowledge of regulatory guidelines and resources. The survey was sent to approximately 15 QRM personnel and 1260 physicians throughout Newfoundland and Labrador (NL). The focus groups involved 10 QRM personnel and 12 physicians in leadership.

Results: 11 QRM personnel (73.3%) and 165 physicians (13.1%) completed the surveys. For the QRM survey, 0% of respondents reported feeling very comfortable disclosing adverse events and 55.6% reported feeling very uncomfortable, even with their extensive preparation for these conversations (81.8% received orientation on disclosure, 90.9% received formal training, and 100% are aware of regulatory guidelines and regulations). For the physician survey, 11.3% reported feeling very comfortable disclosing adverse events and 8.6% reported feeling very uncomfortable, despite being less prepared for these conversations than QRM personnel (30.9% received orientation about disclosure, 49.4% received formal training, and 49.1% are aware of regulatory guidelines and regulations). In the focus groups, QRM personnel and physician leaders noted improved performance among all staff who have been involved in disclosure discussions. However, there is still a level of discomfort with disclosure among frontline staff.

Conclusion: Based on the surveys and focus group results, physicians in NL could receive more information and training in disclosure. More work is needed around communication and interviewing techniques, team behaviours, and the creation of a Just Culture.

THE MED THREAD - PODCASTING AND PHARMACY EDUCATION

Cathy Balsom, Mike Chong, Heidi Wicks, *Pharmacy*

ABSTRACT: Poster (3A)

Purpose: Pharmacy students are tasked with understanding the constantly changing and increasing amount of drug information while being able to counsel patients. We created a podcast called the Med Thread as a platform for accurate, evidence-based information that is accessible and applicable to pharmacy practice in today's communication outlets. As part of preliminary development, this project was conducted to evaluate the reach and subjective benefit of our podcast.

Methods: Data has been collected up to September 02, 2018. Total play counts were obtained from the main distributor, Soundcloud™, as well as Apple™ Podcasts. A short survey was circulated through social media to gather episode popularity, educational value, and comments. Twitter™ and Facebook™ analytics were collected to assess the reach of social media posts.

Results: The podcast is currently in episode 4 of an 8 episode trial. Play counts from May 10 to September 02, 2018 average 264 per episode but is skewed towards our pilot episode on insomnia. Twitter posts average 2627 impressions and a 1.7% engagement rate. Facebook posts average 499 impressions and an 8.9% engagement rate. While limited, survey responses show fairly even popularity among episodes. Participants indicated that they learned something new from the episode and enjoyed the intertwining of history, culture and pharmacy.

Conclusion: Our podcast aimed at engaging students to step outside the curriculum by using history, culture and conversation to navigate pharmaceutical care. While overall impressions are positive, the low number of responses from students could be related to timing of our launch outside of the academic year. Given the episodic nature of podcasting and the challenges of using social media and word of mouth to promote content, it would be rash to conclude any specifics from our results. However, play counts and social media analytics are promising and encourage continuation of the project. We will be conducting a more thorough evaluation of our project as it continues.

INTRODUCTION TO PRESCRIPTION WRITING: ONLINE MODULES FOR MEDICAL STUDENTS

Christopher Grant, *Medicine*; John Hawboldt, *Pharmacy and Medicine*

ABSTRACT: Poster (3B)

Purpose: Medication prescription writing is an essential skill for physicians. However, medical students often receive minimal formal training in this area. Two online modules were designed to provide medical students a convenient method to learn the skills of prescription writing.

Methods: Two modules were designed in PowerPoint for use in Desire2Learn, the course management system used at Memorial University of Newfoundland (MUN). The modules were targeted at pre-clerkship (Phases I-III) students with no previous healthcare experience. In the first module, students were taught the basic requirements (e.g. acceptable abbreviations) and worked through examples of several types of common outpatient prescriptions (e.g. antibiotics). Tips for clear communication were provided throughout, and embedded questions along with a multiple-choice quiz provided opportunity for self-review. A second module was developed to cover topics that could not be addressed in the first (e.g. rules regarding narcotic prescriptions). Both modules were made available to pre-clerkship medical students at MUN in the winter of 2016.

Results: A user-satisfaction survey for the first module (based on the course evaluation questionnaires used locally). The module was generally received favourably (e.g. 92% of responding students indicated "agree" or "strongly agree" to "I would recommend this module to other medical students"). Strengths noted by students include the module's level of detail and use of examples.

Conclusion: Online modules are a convenient method to teach students the skills of prescription writing for medications.

APPROPRIATE ANTIBIOTIC PRESCRIBING MODULE - HOW TO CHOOSE WHICH DRUG TO USE

Dan Doyle, Natalie Bridger, *Medicine*

ABSTRACT: Poster (3C)

Purpose: Antibiotics are a medication class which can be challenging for undergraduate healthcare students to learn. Topics such as microbiology and pharmacology must be learned, in addition to the diagnostic component of infectious disease content. This can be overwhelming for learners when seeing this information for the first time. A learning need was identified by medical students at Memorial University of Newfoundland (MUN) for supplemental antibiotic material to complement the didactic lectures provided during pre-clerkship training. The purpose of this project was to create a module to meet this learning need.

Methods: In collaboration with an infectious disease specialist, a module was created to assist pre-clerkship medical student learning regarding major antibiotic classes. Learning objectives were developed to guide student learning. The module was designed to optimize recall of information through the use of mnemonics, questions, cases, and a historical description of antibiotic design as it pertains to spectrum of activity. A post-module evaluation was then conducted to determine the subjective opinion of twenty-five pre-clerkship medical students at MUN. Eight questions used a 1-5 Likert scale and two questions assessed student opinion on module strengths and areas for improvement.

Results: Response to eight quantitative questions ranged from 4.3 to 4.6, with "amount of detail" scoring lowest and "recommending module to others" scoring highest. Areas for improvement included adding more cases to provide a broader range of difficulty and providing more information on certain antibiotic classes. Strengths included mnemonics, simplified SOA for antibiotic classes, and review questions and cases.

Conclusion: The module received positive feedback and evaluation results were used to make changes to improve the module for future students. Additions include more clinical cases to cover a broader range of infections, more information on certain antibiotics, and appendices to help summarize module topics. The module is available to undergraduate medical students online through desire2learn, with the goal of publishing the module in Association of American Medical Colleges MedEd Portal. There is potential for this module to be used by several other healthcare disciplines, including pharmacy and nursing.

COMPARING REPEATED SELF-REFLECTIVE METHODS ON ENTRUSTABLE PROFESSIONAL ACTIVITIES (EPAS) PERFORMANCE FOR POST-GRADUATE MEDICAL LEARNERS

Timothy Brennan, *Graduate Student*; Kathryn Sparrow, *Anesthesia*; Kristen Romme, *Health Sciences Library*; Michael Bautista, *Anesthesia*

ABSTRACT: Poster (3D)

Purpose: The concept of self-reflection involves critical analysis of one's actions and decisions. Self-reflection is a process that involves the use of various self-reflective methods, including guided reflection (peer group or supervisor/mentor setting), independent reflection, written/audio diaries, and reflective storytelling/writing. Our literature review examines the application of self-reflection and self-reflective methods to resident Entrustable Professional Activities (EPA) performance, a relatively unexplored area of residency education research. Furthermore, our literature review reveals a significant gap in the literature: the absence of studies that compare the effectiveness of the aforementioned self-reflective methods and determines whether or not the practice of repeated self-reflection is effective at improving EPA performance. The ultimate goal of our research is to devise and conduct a study that addresses this gap.

Methods: A search was conducted for relevant articles related to the topics of medical reflection, EPAs, and reflection upon EPA performance. The databases consulted were PubMed and Embase, and the keyword/search term entries were "reflection," "entrustable professional activity," "competency," and "milestone." We limited the results to English-language articles. Each article was examined and evaluated for its relevancy and appropriateness to our aforementioned research interests. Some articles do not include every search term but rather focus on either self-reflective methods or EPA performance evaluation.

Results: Our database search returned twenty-one articles in total. We excluded nine articles based on our inclusion and exclusion criteria. The number of examined studies that utilize the aforementioned self-reflective methods is as follows: guided reflection (five), independent reflection (seven), written/audio diaries (four), and reflective storytelling (two). Eleven of these studies used more than one self-reflective method. Our key findings include the following: no study compared the effectiveness of the various reflective methods, and no study examined the effect of repeated self-reflective exercises using these methods.

Conclusion: Our review demonstrates that there is limited literature on this subject, indicating a need for further study and research on repeated self-reflection of EPA performance by post-graduate medical learners. The next step is to conduct a systematic and scoping review of the literature. We will continue to explore further research and suggestions for EPA reflection activities in order to create a successful study.

DEVELOPMENT OF A WELLNESS MODULE FOR PGY-1 ACADEMIC HALF-DAY

Jennifer O'Dea, *Pediatrics*; Susan Avery, *Family Medicine*; Heidi Coombs, *Office of Professional and Educational Development*; Heather Power, *Pediatrics*; Beth Whelan, Student Wellness and Counselling Centre

ABSTRACT: Poster (3E)

Purpose: Wellness is an increasingly important component of residency program curriculum. Physicians should develop resiliency skills to maintain wellness, to avoid burnout, and to provide safe patient care. However, finding opportunities to build wellness resiliency in residency training can be challenging. In addition, it is unclear whether or not residents are aware of services that are currently available. This study involved a comprehensive needs assessment among all residents in the Faculty of Medicine, Memorial University of Newfoundland (MUN). Information was utilized to inform academic half-day (AHD) content for PGY-1 trainees.

Methods: A survey was developed based on a literature review and local wellness services. The survey was distributed electronically or in person to residents in all training programs (n=287) at MUN. The survey assessed the residents' knowledge of current wellness services. Results from survey were analyzed and utilized to inform educational content. An AHD module was subsequently designed to include these concerns. Case examples were formulated to be used for discussion. Post AHD evaluation was provided to examine residents' satisfaction and feedback for future sessions.

Results: 126/287 residents completed the survey, yielding a response rate of 44%. Approximately 54% (n=60/112) of residents reported being only slightly knowledgeable about resident wellness. 70% (n=77/110) of all respondents indicated they were not aware that services were confidential. Qualitative feedback themes included mandatory activities in each discipline and the need for wellness role models. Residents provided suggestions for wellness promotion including social media, consistent integration into AHDs, and options for rural/remote residents. Ideas for AHD content included mindfulness, difficult conversations, dealing with burnout, and resiliency. The needs assessment data was subsequently used to develop educational content for an AHD. PGY-1 residents participated in the AHD (n=38). Post session evaluation surveys were collected. Session was divided into two groups and included case based discussion on topics identified in the needs assessment.

Conclusion: Wellness is an important theme in postgraduate medical education. The findings from this preliminary survey suggest that a significant proportion of MUN residents are unware of current wellness resources. Our AHD demonstrated that a larger group didactic session was a less effective format for introducing residents to wellness competencies. Further work is needed to enhance wellness opportunities and competencies in our postgraduate training programs.

DEVELOPING ROLE MODELLING CONSCIOUSNESS AND COMPETENCE IN PSYCHIATRY RESIDENTS: EVALUATION OF A PROGRAMME

Melanie Wong, Tanis Adey, *Psychiatry*

ABSTRACT: Poster (3F)

Purpose: Role modelling is a teaching process by which faculty members demonstrate clinical skills, professionalism and humanistic attributes, and influence a learner's professional identity and career choices. Physicians who are considered excellent role models make a conscious effort to be role models, suggesting that physicians should make role modelling behaviours intentional and explicit. However, learning to role model is not currently a standard competency of the psychiatry residency curriculum. The purpose of this study is to examine methods of improving resident physicians' role modelling skills through developing conscious awareness and competence.

Methods: A seminar on role modelling using reflection and case simulation was delivered to psychiatry residents. Three questionnaires, adapted from a 2018 study by Sternszus et al., using a five-point Likert scale were given before, immediately after, and one month after the seminar. Self-perceived awareness of role modelling was evaluated at all three time points and the perceived usefulness of the programme was evaluated immediately after. A retrospective pre-post questionnaire was given one month following the seminar.

Results: Eleven out of 27 (40.7%) residents participated, with five residents completing all three questionnaires (18.5%). Residents rated the quality of the seminar highly (mean=4.42). A Wilcoxon Signed-Ranks Test indicated that the 11 residents' awareness and understanding of role modelling significantly increased immediately after the seminar, with average scores of 3.03 before the seminar and 3.65 after the seminar ($Z=-2.818$, $p<0.005$). The residents showed improvement particularly in their understanding of what students look for in a role model ($Z=-2.828$, $p<0.005$), awareness of what they teach through role modelling ($Z=-2.640$, $p<0.008$), and awareness in effective strategies for role modelling ($Z=-2.877$, $p<0.004$). The number of participants who completed the questionnaire one month after was insufficient to be analyzed for statistical significance.

Conclusion: Introducing an interactive seminar appears to encourage the development of role modelling consciousness in residents, and therefore, their ability to become strong role models for future physicians. Further interventions could be implemented in residency programs to advance residents' role modelling in their teaching.

DEVELOPMENT OF AN INTERPROFESSIONAL CARE PLAN COMMUNICATION TOOL FOR PEDIATRIC CEREBRAL PALSY CLINICS IN NEWFOUNDLAND AND LABRADOR

Jennifer Mooney, *MD Student*; Jennifer O'Dea, *Pediatrics*

ABSTRACT: Poster (3G)

Purpose: In Pediatrics, many children suffer from chronic medical conditions resulting in significant functional limitations and require complex medical care. Children with Cerebral Palsy have many specialties involved in their care, who work together as an inter-professional healthcare team. Due to the number of team members and the complexity of these patients, it can be challenging to perform detailed assessments and maintain good communication and collaboration. The purpose of this project is to develop an inter-professional tool to provide an overview of the patient's progress from an inter-professional perspective, provide evidence-based management guidance for medical issues and increase the efficiency and flow of cerebral palsy [CP] clinics within Newfoundland and Labrador.

Methods: Similar tools implemented in complex care, down syndrome, and spina bifida clinics were reviewed. A focus group was held with team members to determine their opinions regarding clinic flow, areas to improve and suggestions for the clinic tool. The team expressed concern about repetition and overlap of scopes of practices. Review of the literature and guidelines from other centres was conducted on the diagnosis and problems encountered by this patient population. Guidelines from other CP clinics were also utilized. CP clinic was directly observed. A comprehensive checklist was created that included potential medical and functional impacts of CP and evidence-based recommendations for patient management. The tool utilized an inter-professional approach and included specific areas for all team members to provide updates and recommendations. The tool was then distributed to the team for further feedback. Adjustments were made to refine the tool's effectiveness and to better fit the needs of all inter-professional care providers.

Next steps: The tool is currently being implemented in a weekly Cerebral Palsy clinic. The allied health professionals and Physicians on the team will complete a post-evaluation satisfaction survey and return it to Dr. Jennifer O'Dea, the Pediatrician on the team. Qualitative results will be assessed to evaluate if the tool was proven to be effective in optimizing patient flow and care.

Conclusion: Children with CP have complicated medical and functional problems requiring coordinated care from many inter-professional team members. Utilizing a clinical tool in our CP clinic enhances communication and collaboration within the team in a more cohesive manner to provide continued comprehensive patient centered care.

USING DIGITAL, SOCIAL, AND MOBILE TECHNOLOGIES (DSMTS) FOR YOUR CONTINUING PROFESSIONAL EDUCATION

Lisa Fleet, Karla Simmons, Vernon Curran, *Office of Professional and Educational Development*; Diana L. Gustafson, *Community Health and Humanities*; Lyle Wetsch, *Business Administration*

ABSTRACT: Poster (3H)

Purpose: Self-directed learning (SDL) activities are a recognized type of informal adult learning across many continuing professional development systems. The expansive growth of DSMTs has created new opportunities for connecting with information and colleagues. The purpose of this survey is to explore adult learners' perceptions and experiences with SDL and continuing professional education (CPE).

Methods: Online survey-questionnaire

Results: There were n=556 respondents, the majority of whom were nurses. Benefits to using DSMTs reported by survey respondents (mean scores out of 4) include improved access to information (mean 3.51), potential for enhanced knowledge acquisition (mean 3.45), and enables me to stay up-to-date (mean 3.44). A main barrier reported to using DSMTs (mean out of 4) includes cost of some apps, courses, etc. (mean 3.07). Respondents report using webinars (81.1%), healthcare websites (76.8%), online courses (70.7%), and online journal databases (57.9%) to meet their CPE learning needs. Forty-three percent (43.0%) report using YouTube; 29.5% report using podcasts or other archived resources.

Conclusion: The findings suggest that DSMTs are growing as a key resource to support the SDL needs of health professionals. They are facilitating greater 'point-of-care' learning and enabling more efficient ways of seeking out information. However, several factors influence the adoption and use of DSMTs to support 'just-in-time' learning, such as access, connectivity, perceptions of use, and professionalism.

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