

20th Annual Family Medicine Research Day

June 9, 2023

ABSTRACT

- Title:** The BETTER Program: An Innovative Evidence-Based Approach to Support Healthier Behaviours that Reduce the Likelihood of Cancers and Other Chronic Diseases
- Author(s):** Donna Manca, Carolina Fernandes, Heidi Cheung
- Background:** Cancer and chronic disease prevention and screening (CCDPS) guidelines are not consistently applied in primary care. Primary care providers need integrated pathways and resources that can be applied at the individual patient level, which focus on more than one specific disease or organ system as patients often have complex care needs.
- Purpose:** To describe the evidence behind the BETTER Program and the primary prevention and screening recommendations used in the approach, which consider family history and risk factor assessment and can be used to inform patient care.
- Methods:** The BETTER program comprehensively addresses CCDPS for patients 40 to 69, while focusing on common causal lifestyle factors (physical activity, nutrition, and alcohol, tobacco, and cannabis use). The BETTER approach involves a new role, the “Prevention Practitioner” (PP), a health professional with expertise in CCDPS. Using the BETTER toolkit, the PP develops a tailored “Prevention Prescription” with each patient, helps them set their own S.M.A.R.T. goals, and links them to community resources as appropriate.
- Results:** The BETTER program builds on the results from the BETTER trial, which demonstrated that a tailored patient-level intervention improved uptake of CCDPS actions in urban primary care settings in Canada as compared to usual care (54% vs. 21%, $p < 0.001$). Similar improvements have been observed in rural and remote communities (49% of CCDPS actions met) and in public health settings (64.5% of CCDPS actions met). BETTER has also been successfully adapted to serve the health needs of diverse Indigenous communities.
- Conclusions:** The BETTER program is an adaptable, collaborative, patient-centered approach to CCDPS founded on evidence-based integrated care plans that can be used to assess patients’ CCDPS risk and health priorities. The BETTER toolkit can be harnessed to facilitate the application of actionable clinical recommendations for CCDPS in diverse settings across Canada.

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ABSTRACT

- Title:** Metabolic Rehab in Primary Care: Evaluating the CHANGE Protocol in Treating Metabolic Syndrome
- Author(s):** Doug Klein, Amanda Radil, Liam Collins, Paula Brauer, Angelo Tremblay, Kursheed Jeejeebhoy
- Background:** Metabolic syndrome (MetS) refers to a combination of factors (dyslipidemia, elevated glucose and triglycerides, high blood pressure, and high abdominal fat distribution) that increase the risk for cardiovascular disease (CVD) and diabetes (DM), among other diseases. In Canada, 20% of adults have MetS. MetS is of great importance as it precedes DM and CVD by several years. Progression of MetS to DM and CVD can be significantly reduced by dietary modification and exercise.
- Purpose:** The primary purpose of this trial was to test the effectiveness of Metabolic Rehab (the CHANGE intervention) to increase physical activity, improve diets, reduce obesity and reverse MetS among adult patients when implemented in typical primary care settings within Alberta.
- Methods:** A cluster randomized control trial (cRCT) of 16 PCNs within Alberta (pre/post design). 750 participants were screened into the RCT; 700 participated in the RCT in either intervention or control. The intervention was the CHANGE protocol, a personalized approach to nutrition and exercise modification supported by an interprofessional team.
- Results:** Patients had a 23% chance of reversing MetS, depending on the severity of their initial MetS. Additionally, patients reported that they enjoyed the program and liked the depth of information that was provided in their sessions; the individualized nature of the program was helpful, especially in regards to diet preferences. Patients and health professionals also reported that the intervention led to increased health, along with additional unexpected positive benefits.
- Conclusions:** Metabolic Rehab is an effective lifestyle intervention that reverses MetS; greater integration of Metabolic Rehab into primary care can proactively treat the symptoms that later manifest in CVD, DM, and other chronic health conditions.

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ABSTRACT

- Title:** Metabolic Rehab in Primary Care: Exploring Physical Activity Changes
- Author(s):** Doug Klein, Amanda Radil, Liam Collins, Paula Brauer, Angelo Tremblay, Kursheed Jeejeebhoy
- Background:** Metabolic syndrome (MetS) refers to a combination of factors (dyslipidemia, elevated glucose and triglycerides, high blood pressure, and high abdominal fat distribution) that increase the risk for cardiovascular disease (CVD) and diabetes (DM), among other diseases. In Canada, 20% of adults have MetS. MetS is of great importance as it precedes DM and CVD by several years. Progression of MetS to DM and CVD can be significantly reduced by dietary modification and exercise.
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- Methods:** A cluster randomized control trial (cRCT) of 16 PCNs within Alberta (pre/post design). 750 participants were screened into the RCT; 700 participated in the RCT in either intervention or control. The intervention was the CHANGE protocol, a personalized approach to nutrition and exercise modification supported by an interprofessional team.
- Results:** Physical activity levels increased in both total amount and intensity in the intervention group; the same pattern was not observed in the control group. Patients spoke about enjoying the gradual nature of the intervention as well as enjoying learning about working out with peers and developing connections with peers. They also spoke about the benefits of being more active and recognizing the small things that they could do to be more active.
- Conclusions:** Metabolic Rehab is an effective lifestyle intervention that increases physical activity in both total amount and intensity in patients with MetS; greater integration of Metabolic Rehab into primary care can proactively treat the symptoms that later manifest in CVD, DM, and other chronic health conditions.

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ABSTRACT

- Title:** The Real-World Effect of Physical Activity Promotion Interventions by Primary Care Physicians to Improve Clinically Relevant Indicators: A Systematic Review and Meta-Analysis
- Author(s):** **Cliff Lindeman**, Liam Collins, Simran Panesar, Anh Pham, Sehar Qureshi, John Spence, Michael Stickland, Amanda Radil, Allison Sivak, Doug Klein
- Background:** It is well established that physical activity is an effective mode of prevention and treatment for chronic conditions that are regularly managed in primary care. Despite this, many primary care providers remain unconvinced that they can make a meaningful impact to their patient's physical activity.
- Purpose:** An area yet to be investigated is the impact of primary care provider physical activity interventions on clinically relevant indicators (e.g., body mass index, blood pressure). We suggest that if a positive impact on clinical indicators is found in the literature, primary care providers may view physical activity as an evidenced-based modality in the treatment and prevention of chronic conditions.
- Methods:** We are undertaking a systematic review and meta-analysis with the following research question: 'What is the effect of physical activity interventions delivered by primary care physicians (e.g., general advice, paper hand-out resources, referral to community resources) on clinically relevant indicators (i.e., body mass index, weight, blood pressure, count of chronic conditions, count of medications)?' This review will analyze objective changes from baseline to post-point or multipoint examination across the clinically relevant indicators.
- Results:** A research librarian developed a comprehensive search strategy based on the study objectives and the research question. Currently, the project team is reviewing 2,410 abstracts and titles to determine eligibility for full-text screening. We anticipate the results of this review will be available in early 2024.
- Conclusions:** This review will comprehensively describe and quantify the degree to which primary care-delivered physical activity interventions impact clinically relevant indicators as discussed in the relevant literature. We plan to publish a manuscript in an academic journal, present at the findings at national and international research conferences, and to develop a practice note to outline the findings that will be available to primary care providers, researchers, policy makers, and the public.

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ABSTRACT

Title: Physician's Guide to Lubricants Used During Sexual Activity

Author(s): Ryleigh Vanderschee, Sanja Kostov

Background: Lubricant use during sexual activity (LUDSA) has numerous benefits, minimal harms, and can play a role in managing common concerns in primary care. However, navigating evidence-based conversations about LUDSA can be challenging. As a result, physicians rarely ask about LUDSA, and can only offer anecdotal advice.

Purpose: To review published literature on LUDSA to inform development of a user-friendly evidence-based practice tool that will help family physicians: (1) identify patients who may benefit from LUDSA; and (2) incorporate patient-specific recommendations into clinical practice.

Methods: We conducted a scoping review of peer-reviewed literature using Arksey and O'Malley's framework. Using relevant keywords, we searched two electronic databases, one search engine, and reference lists for articles published in 2003 and onward. Articles generated were manually reviewed for relevance with further inclusion criteria: (1) identifies patient populations most likely to benefit from LUDSA; (2) addresses benefits and drawbacks of different lubricant classes; or (3) describes properties of ingredients found in certain lubricants that may cause harm. No restrictions were placed on the country of participation or the age, gender, or sexual orientation of participants. To validate our findings, family physicians, psychologists specializing in sexual concerns, and sexual health educators provided iterative review.

Results: At the time of abstract submission, 19 articles were deemed eligible for inclusion. Preliminary results show LUDSA to be especially beneficial for patients who: (1) experience dryness and pain during any type of sex; (2) experience symptoms associated with sexual dysfunction; (3) are at higher risk of STI transmission (by reducing genital epithelial damage and condom breakage); and (4) are at risk of pregnancy (by reducing condom breakage). Silicone-based and water-based lubricants without glycerin are recommended over other types.

Conclusions: This scoping review provides evidence for the creation of our practice tool to help family physicians counsel patients on LUDSA.

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ABSTRACT

- Title:** Examination of Intrapartum Obstetrical Care in Alberta: A Secondary Data Analysis and Lessons Learned
- Author(s):** Helen Cai, Sanja Kostov, Oksana Babenko, Olga Szafran
- Background:** Currently in Canada, intrapartum obstetrical care is provided by family physicians (FPs), obstetrician-gynecologists (OBs), and registered midwives (RMs). The 2010 National Physician Survey (NPS) showed that only 10.5% of Canadian FPs provide intrapartum care. This number has been on a steady decline over several decades, but has been most striking in large urban settings. Additionally, a discrepancy exists between the NPS data and a 2020 CFPC Family Medicine Longitudinal Survey in which 30% of FPs reported intrapartum care to be part of their practice. In Alberta in particular, the distribution of intrapartum care by provider (FPs, OBs, RMs) appears to differ greatly by community. Anecdotally, for example, FPs in Calgary have significantly higher patient volumes as compared to those in Edmonton.
- Purpose:** To examine the distribution of intrapartum obstetrical care in Alberta by provider (FPs, obstetrician-gynecologists, registered midwives) to determine if patterns do exist.
- Methods:** Secondary data analysis of administrative data collected and provided by the Alberta Health Services, Alberta Perinatal Health Program. The data sources are: The Discharge Abstract Database (DAD) and the National Ambulatory Care Reporting System (NACRS). Descriptive (frequencies) analyses will be performed by region, time (yearly trends), and provider demographics. Patient outcomes will also be examined by provider (FPs, OBs, RMs).
- Results:** Initial examination of the data has revealed inconsistencies in how data have been collected historically by various authorities and what variables have been captured. Final results are pending.
- Conclusions:** The encountered inconsistencies pose difficulties in data analyses, make regional patterns largely incomparable, and prevent from having a clear province-wide picture of intrapartum care by various providers in Alberta. Lessons learned and policy implications will be discussed.

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- Title:** An Interdisciplinary Telehealth Referral Pathway to Improve Outcomes Among Canadian Older Adults With Liver Cirrhosis
- Author(s):** **Frances Carr**, Julie Zhu, Peter Tian, Michael Sun, Harrison Petropolis, Magnus McLeod, Margo MacFarlane, Sarah deCoutere, Kevork Peltekian
- Background:** Telehealth has become an indispensable healthcare delivery tool during the COVID-19 pandemic. Older adults with cirrhosis have complex medical needs that are currently unmet due to growing disease burden and decreased access to specialist care within Canada. Delivering timely specialist care virtually to older adults with cirrhosis has the potential to improve patient care; however, this strategy has not yet been prospectively studied.
- Purpose:** The primary objective was to evaluate the feasibility of providing virtual dual-specialist care for high risk older adults living with liver cirrhosis using a dedicated hepatology-geriatric referral pathway and assess its impact on healthcare utilization (Emergency room visits, rates of hospitalization), and patient satisfaction.
- Methods:** Older adults (65+) with liver cirrhosis who had been referred to a Halifax hepatology clinic and underwent a virtual hepatology assessment were enrolled over a three-month period (September – December). Participants with one or more geriatric syndromes were then referred for a virtual geriatric assessment, by zoom or telephone. Telephone follow-up was done 4 weeks (patient satisfaction), and at 3 and 6 months (to assess healthcare utilization).
- Results:** Of 68 participants enrolled, 39 (57.4%) had at least one geriatric syndrome. Thirty participants were referred for a virtual geriatric assessment, with 18 completing a geriatric assessment (four by zoom and 14 by telephone). At three months, a significant decrease was seen in ER visits ($p=0.0012$), but not in the hospitalization rate ($p=0.1115$); six months results are still pending. Participant feedback from 16 participants was overwhelmingly positive regarding their experience and satisfaction.
- Conclusions:** This interprovincial feasibility study has shown that the virtual delivery of dual-specialist care for older adults living with cirrhosis is feasible, and acceptable to patients. Although 6-month results are still pending, evidence so far suggests that this innovative model of care may reduce healthcare utilization.

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ABSTRACT

- Title:** Development, Implementation and Evaluation of a Primary Care Pathway for Uncomplicated Obstructive Sleep Apnea
- Authors:** **Shaelynn Zouboules**, Ada Ip-Buting, Kerry McBrien, Willis Tsai, Oliver David, Reg Gerlitz, Jaana Woiceshyn, Gabriel Fabreau, Patrick Hanly, Maoliosa Donald, Marcus Povitz, Sachin Pendharkar
- Background:** Management of uncomplicated obstructive sleep apnea (OSA) by primary care providers (PCPs) has been proposed to address barriers to accessing timely care. We previously identified obstacles to OSA management by PCPs including knowledge gaps, inadequate role clarity and system navigation difficulties. The aim of this project was to develop and implement clinical tools to address these gaps to support OSA management by PCPs in Calgary.
- Methods:** Building from the aforementioned prior work, we undertook a series of quality improvement initiatives. To evaluate the impact of these initiatives, we obtained data on usage and new referrals to the Foothills Medical Centre (FMC) Sleep Centre during distinct referral periods. We categorized referrals as uncomplicated or complicated OSA and compared the proportion of complicated referrals across periods.
- Results:** The first initiative was a clinical guideline document. Subsequently, with engagement from sleep physicians, primary care leaders and respiratory homecare, we developed a primary care clinical pathway that incorporated real-time specialist telephone access. The pathway was published on multiple websites and attached to referrals deemed uncomplicated and returned to PCPs. The pathway download rate averaged 18.3 downloads/month. Triage data was separated into distinct referral periods: prior to (period 1) and after (period 2) guideline release, and after pathway publication (period 3). Preliminary analysis did not demonstrate an increase in complexity of patients referred to the FMC Sleep Centre after pathway release (% complicated referrals in periods 1, 2, 3: 49.5%, 43.6%, 42.6%, respectively).
- Conclusions:** Through an evidence-based, stakeholder-engaged approach, we developed and implemented tools to support OSA management by PCPs. Preliminary analysis suggests pathway access was relatively low. A corresponding increase in the complexity of referrals received after pathway release was not observed. This may indicate the pathway was not effective and/or accessible enough to support PCPs to independently manage patients with uncomplicated OSA.

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ABSTRACT

Title: BNP Ordering Patterns North of 60

Author(s): Christine Miller

Background: This was my PQI project completed during a two-month rural family medicine rotation in Whitehorse, Yukon. Congestive heart failure (CHF) is a common admitting diagnosis in the Yukon Territory. B-type natriuretic peptide (BNP) testing at discharge can identify those patients most likely to be readmitted in the next 1-3 months.

Purpose: To determine pre and post discharge BNPs for patients admitted to Whitehorse General Hospital in acute heart failure, as a predictor of 30 day all cause readmissions.

Methods: Retrospective chart review from September 2021 to August 2022. Subjects included were adult patients (18 years or older) admitted to Whitehorse General Hospital in acute heart failure. Pediatric, pregnant and palliative care patients were excluded from analysis. Patients were divided into BNP groups less than 1000, 1001-5000, 5001-9999 and greater than 10,000.

Results: Twenty nine patients were included. Mean admission BNPs for each group were as follows: Group 1 808.4, Group 2 2728.8, Group 3 6563.8, Group 4 16094. Only 2 discharge BNPs were ordered so this data was not analyzed. Mean admission BNP level in the event group (30-day all-cause readmission) was 6103.08 (n=12), followed by 4615.12 (n=17) in the non-event group. This provided a 95% CI= 6103.08 ± 3620.45 in the event group and 95% CI= 4615.12 ± 2443.75 in the non-event group. The difference in BNPs was not statistically significant given the overlapping confidence intervals.

Conclusions: Recommend ordering discharge BNP, as per American Heart Association it is a “stronger marker of post-discharge outcomes than either baseline or percent change in BNP during hospitalization.”

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- Title:** Transcriptomic Response of Bioengineered Human Cartilage to Parabolic Flight Microgravity is Sex-Dependent
- Author(s):** Amira Aissiou, S. Jha, K. Dhunoo, Z. Ma, D. X. Li, R. Ravin, M. Kunze, K. Wong, A. B. Adesida
- Background:** Mechanical stimulation is crucial for cartilage development, and the health of cartilage tissue is maintained by the intricate balance between loading and unloading forces. Extended periods of unloading leads to the development of osteoarthritis. This effect is more pronounced in females compared to males but the mechanism remains poorly understood.
- Purpose:** To investigate and compare the effects of microgravity on male and female cartilage tissue.
- Methods:** In this study, we investigate the effect of simulated spaceflight microgravity facilitated by parabolic flights on tissue-engineered cartilage developed from in vitro chondrogenesis of human bone marrow mesenchymal stem cells obtained from age-matched female and male donors.
- Results:** The successful induction of cartilage-like tissue was confirmed by the expression of well-demonstrated chondrogenic markers. Our bulk transcriptome data via RNA sequencing demonstrated that parabolic flight altered mostly fundamental biological processes, and the modulation of the transcriptome profile showed sex-dependent differences. The secretome profile analysis revealed that two genes (WNT7B and WNT9A) from the Wnt-signaling pathway, which is implicated in osteoarthritis development, were only up-regulated for female donors.
- Conclusions:** The results of this study showed that the engineered cartilage tissues responded to microgravity in a sex-dependent manner, and the reported data offers a strong foundation to further explore the underlying mechanisms.

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ABSTRACT

- Title:** Physician Wellbeing in the Digital Era: Considerations for Successful Implementation of Virtual Care
- Author(s):** Gabriel LaPlante, **Oksana Babenko**, Adam Neufeld
- Background:** According to self-determination theory (SDT), for people to experience optimum wellbeing, three basic psychological needs – autonomy, competence, and relatedness – must be met. Since virtual environments are increasingly a part of physicians' work landscape, a better understanding of the relationship between physician wellbeing and workplace need fulfillment with respect to virtual settings is warranted.
- Purpose:** To investigate the impact of virtual care use on physician wellness and workplace need fulfillment from the perspective of SDT.
- Methods:** Using an online survey, quantitative data was collected from 156 family physicians (FPs) in Alberta. The questionnaire measured workplace need fulfillment, subjective wellbeing (psychological, physical, relational), and the frequency of virtual care use. Descriptive and regression analyses were performed to assess the relationship between physicians' workplace need fulfillment and wellbeing while accounting for frequency of virtual care use.
- Results:** Physicians reported on average moderate levels of wellbeing (physical 3.6/5; psychological 3.7/5; relational 3.8/5). Frequency of virtual care use was negatively associated with the satisfaction of physicians' basic psychological needs at work. Virtual care use was found to have the strongest association with the need for relatedness ($r = -.21$, $p < 0.01$), suggesting that as FPs used more virtual care in their practice, they experienced less satisfaction of this need. After controlling for virtual care use, workplace need frustration had negative effects on physicians' wellbeing ($\beta = -.45$, $p < .001$).
- Conclusions:** As we strive to optimize the integration of virtual care in medical practice, we need to consider the impact of workplace need fulfillment on physician wellbeing. Our findings indicate that the implementation of virtual care should be approached with careful consideration of how policies and features of virtual care support physicians' psychological needs and professional wellbeing.

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ABSTRACT

- Title:** Building a Better System to Support Family Caregivers: Co-designing Health Workforce Education
- Author(s):** Jasneet Parmar, Tanya L'Heureux, Sharon Anderson, Michelle Lobchuk, Jamie Penner, Elisabeth Drance, Laurie Caforio, Glenda Tarnowski, Charlotte Pooler, Johnna Lowther
- Background:** Innovative solutions are needed to address the healthcare workforce shortage and care crisis. This includes involving Family Caregivers (FCGs) as partners on the care team, rather than treating them as mere accompaniments. Integrating FCGs improves patient care, reduces hospitalizations, and eases healthcare providers' workload. However, FCGs often remain invisible and marginalized by healthcare providers despite the need for integrated care that addresses their comprehensive needs.
- Objectives:** Report on our use of co-design and learning health systems approaches to building the essential elements of integrated supports for FCGs.
- Methods:** Our Alberta Caregiver-Centered Care Research Program collaborates with stakeholders to build integrated health and social care supports for FCGs. We use Learning Health System methods to improve FCGs' population health: Micro level: Recognize and assess FCGs' needs. Meso level: Foster health and social care partnerships and educate healthcare providers in person-centered care. Macro level: Implement coordinated policies to support FCGs.
- Results:** In a series of consultations, multi-level stakeholders prioritized person-centered care education for healthcare providers working with family caregivers. We co-designed Foundational and Advanced education, delivered free online. Using the Kirkpatrick- Barr framework, we evaluated the program impact on learner satisfaction (Level 1) and changes in knowledge, attitudes, and confidence (Level 2). Participants from all healthcare settings completed the education, showing high satisfaction (M=6.64; SD=.76) and significant improvements in post-education scores (pre M=60.45, SD=10.03; post M=67.30, SD=4.34; $t(65)=-6.11$, $p<0.001$). The learning health system approach helped us prioritize service needs and improvement design approach. Engaging multi-level interdisciplinary stakeholders in educational co-design developed champions to drive change and sustain action.
- Conclusion:** Co-design and health workforce education empowers providers to identify areas for improvement and implement changes that will enhance FCGs' healthcare experience. Implications: The learning health system framework is a useful approach for addressing the complex system and culture changes required to support FCGs.

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ABSTRACT

- Title:** Exploring the Challenges to Lifelong Learning for Canadian Family Physicians in Late Career Stages: A Scoping Review
- Author(s):** Irma Kritzinger, Sheena Blair
- Background:** The need for rapid learning during the Covid-19 pandemic prompted a personal reflection on the challenges to lifelong learning as a late-career family physician. Professional commitment, regulatory requirements, medical knowledge growth, integration of technology in medicine and long education periods leading to work into later life-years, all play a role in the importance of lifelong learning in family medicine. The fact that half of practicing Canadian family physicians are aged 50 years or older, makes this research important for the profession, providers of continuing professional development, regulatory bodies, and health care authorities to support late-career physicians and help maintain quality patient care.
- Purpose:** 1) Synthesize data from a broad perspective on the challenges to lifelong learning for Canadian family physicians in late career stages.
2) Identify an area or areas where further research on this topic is needed, to inform a future empiric research project.
- Methods:** A scoping review, using the search terms *Family Physician, General Practitioner, Primary Care Physician and Lifelong Learning, Continued Medical Education, Continuing Professional Development and Canadian, Canada and Late career, Older physician, Senior physician and Challenge*, searched the ERIC, MEDLINE, PubMed, Scopus and Web of Science databases. Searches exploring grey literature, websites of medical associations and regulatory bodies, websites of specific medical and educational journals and repositories of master's theses were also done. Data extraction was done from the identified sources of evidence, followed by thematic analysis to identify common themes.
- Results:** A total of 295 sources of evidence were identified. Four final sources of evidence were identified with title searches, title and abstract searches, full text searches and reference searches. Data extraction identified several challenges to lifelong learning. Synthesis found three different interacting spheres of influence on learning namely personal, professional, and educational.
- Conclusions:** A small body of research confirms challenges exist and can be categorized into distinct and interacting spheres of influence on learning. There is room for well-designed, pan-Canadian, qualitative research that may lead to improvements in continued professional development and in policies and practices supporting late career physicians.

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ABSTRACT

- Title:** Patient Perspectives on Same-Day, After-Hours Care Within a Medical Home
- Author(s):** Martin Tieu
- Background:** Continuity of care and accessibility are important functions of a patient-centered medical home. Patients may seek care in emergency rooms or alternate providers if unable to access their medical home, potentially leading to overutilization of acute care services, and/or disjointed care. We offer an after-hours clinic to our patient population on a same-day appointment (not walk-in) basis.
- Setting:** MacEwan University Health Centre (MUHC) in Edmonton, Alberta. MUHC has a unique service model, providing comprehensive primary care to a panel of ~6,500 community patients and over 20,000 university members.
- Purpose:** Characterize patient perspectives on how the availability of after-hours appointments influences where they seek care, as well characterize the presenting diagnoses.
- Methods:** A waiting-room, 5-item paper survey was offered to all patients who presented to our after-hours clinic. This was deemed to be a quality improvement project and exempt from ethics review. Participants included patients who presented to the after-hours clinic from 1-Jan-2023 to 31-Mar-2023.
- Results:** 146 responses to the survey were collected from 415 appointments booked. If the after-hours clinic was not available, patients would have considered accessing the emergency room (27%), a walk-in clinic (52%), waited until the next available appointment (43%), or foregone care (19%). Over 95% of patients felt that the clinic was a valuable service. Of all 415 after-hours visits, the top 3 diagnoses were upper-respiratory tract infection, hypertension, and mental health.
- Conclusions:** Patients find access to after-hours care valuable, and its availability may prevent utilization of acute care services, as well as encourage continuity of care.

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ABSTRACT

- Title:** The Organization for Economic Co-operation and Development (OECD) Patient Reported Indicators Survey (PaRIS) in Alberta
- Author(s):** **Cliff Lindeman**, Andrea Gruneir, and the Canadian OECD PaRIS delegation
- Background:** Approximately 66% of Canadians aged 45 and older have at least one chronic condition and receive most of their routine follow-up care in primary care. While it is important to improve care for this population, limited information is available on how patients experience these services.
- Purpose:** The Organization for Economic Co-operation and Development (OECD) Patient Reported Indicators Survey (PaRIS) is an initiative involving multiple countries, working together to develop and implement a new generation of indicators that measure the outcomes and experiences of health care that matter most to patients; it will be the first of its kind to assess the outcomes and experiences of patients managed in primary care across countries. PaRIS aims to fill a critical gap in primary health care, by asking about aspects like access to health care, waiting times, quality of life, pain, physical functioning, and psychological well-being.
- Methods:** All ten Canadian provinces are participating in this survey. In Alberta, ten primary care physicians will be recruited through the two regional Canadian Primary Care Sentinel Surveillance Networks (CPCSSN). They will complete a 'provider questionnaire' that asks about the providers' practice characteristics. Each participating physician will recruit 75 patients over the age of 45 to complete a 'patient questionnaire' that asks about the care they received from their primary care physician. Data collection will take place between May to October 2023.
- Results:** As data collection is ongoing, we do not yet have results to share.
- Conclusions:** This survey will provide a unique opportunity for providers to understand the outcomes and experiences of their patients. As well, they will gain a better of understanding about how their patients compare with their colleagues in the provinces, across Canada, and across OECD PaRIS-participating countries.

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- Title:** Examining Differences in FieldNotes Completed by Continuous Versus Episodic Supervisors
- Author(s):** Ann Lee, Christopher Donoff, Shelley Ross
- Background:** Continuity of supervision is assumed to be an important component of competency-based medical education (CBME). However, most published literature about continuity of supervision comes from undergraduate medical education. Data from the postgraduate level is needed to see if continuity of supervision does in fact offer assessment benefits and to justify the time and effort needed to redesign GME programs to support continuity of supervision.
- Purpose:** The purpose of this study is to examine differences in assessment behaviors of continuous supervisors (CS) versus episodic supervisors (ES), using completed workplace-based assessment forms, FieldNotes, as a proxy.
- Methods:** We used a retrospective secondary data analysis design to examine FieldNotes (N= 8909) from residents (N= 186) across three teaching sites over three academic years (2015-2016, 2016-2017, 2017-2018). The FieldNotes were examined using 2-sample proportion z-tests to determine differences on three FieldNote elements: competency (Sentinel Habit [SH]), Clinical Domain (CD) observed, and Progress Level (PL).
- Results:** Of 8909 FieldNotes, 6104 FieldNotes (69% of total FieldNotes) were included for analysis. A higher proportion of CS-entered FieldNotes selected SH-3 (Managing patients with best practices), CD-2 (Care of adults), CD-4 (Care of the elderly) and PL-3 (Carry on, got it). A higher proportion of ES-entered FieldNotes selected SH-7 (Communication skills), SH-8 (Helping others learn), CD-1 (Doctor-Patient relationship/Ethics), CD-9 (Not applicable) and PL-2 (In Progress).
- Conclusions:** The findings indicate there are differences between FieldNotes completed by CS compared to ES. The type of supervisory relationship impacts assessment: there is variability in which competencies are paid attention to, which contexts or populations are included, and which progress levels are selected. Further research into the effects of continuity of supervision on assessment is needed.

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- Title:** Examining the Impact of Increased Exposure to Family Medicine in the Reproductive Medicine and Urology UME course
- Author(s):** Navdeep Dhaliwal, Sonja Kostov
- Background:** Family medicine (FM) residency training continues to have declining interest amongst Canadian medical students. Early clinical experiences in FM provides students with a more positive impression of the field but does not change their top specialty choice. Anecdotally, students have misconceptions about the scope of family medicine, such as the breadth of reproductive and sexual health care that family physicians (FPs) can provide. For example, many students are unaware that core FM residency training includes intrapartum care, or that 10.5% of Canadian family physicians (FPs) provide intrapartum care. To address these gaps the University of Alberta (UofA) Undergraduate Medical Education (UME) Program has increased focus on primary care in the Reproductive Medicine & Urology pre-clerkship curriculum (RMUC). Some changes to support this include: (1) increased curricular focus on common primary care presentations; (2) inclusion of an interdisciplinary pregnancy care panel discussion, (3) recruitment of an FP as course director; (4) addition of a family medicine obstetrics (FMOB) shadowing program.
- Purpose:** To examine how the primary care focused components of the RMUC change second year medical students' knowledge and attitudes regarding FM as a career choice.
- Methods:** Second year medical students will be invited to complete online prospective and retrospective questionnaires, at the start and end of the RMUC, to explore their knowledge of and attitudes toward FM, and assess which course components have the greatest impact.
- Results:** Pending.
- Conclusions:** UofA has implemented a primary care focused RMUC, which includes increased exposure to FM through focused clinical exposure and role modeling. Use of a more primary care focused core pre-clerkship curriculum has the potential to change students' knowledge and attitudes regarding FM, and areas of focused FM practice, as career choices.

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ABSTRACT

Title: Examining the Training Experiences and Practice Patterns of Graduates of Enhanced Skills Programs: Part 2 - Interviews

Author(s): Lesley Charles, **Lori-Ann Sacrey**, Constance Lebrun, Shelley Ross, and Peter G. J. Tian

Background: Given the growing importance of (or need for) Enhanced Skills (ES)-trained physicians, there is a pressing need to examine the experiences of those who have trained in these programs. This information can give program designers and teachers insight into where programs are functioning well, and where changes need to be made.

Purpose: To better understand the training experiences of physicians who have completed Enhanced Skills training at one Canadian university.

Methods: Graduates from Enhanced Skills programs at a mid-sized Canadian family medicine residency program were contacted by email using lists held by the Enhanced Skills residency program, and up to three reminder emails were sent during data collection. The interviews were recorded and transcribed. Transcripts were analyzed using inductive thematic analysis as they were collected using the method of constant comparison by Strauss and Corbin (1990) until no new themes were being identified during the interviews. Once data sufficiency was reached, no further participants were recruited. The data were subjected to grounded theory tools of open, axial and selective coding, as well as to a repetition of constant comparison and memoing. To ensure the integrity of the research process, four aspects of trustworthiness, detailed in Lincoln and Guba's model (1985), were addressed throughout the concurrent data collection and analysis processes.

Results: A total of nine participants were interviewed. Four themes were identified that helped provide context and insights regarding the responses to the survey questions: (1) residents gained core skills and academic knowledge; (2) it is important to have skilled and committed preceptors; (3) resident wellness and work-life balance are differentially impacted; and (4) the program can be lengthened and strengthened. Taken together, results suggest that the experiences of graduates overwhelmingly support ES programs.

Conclusions: These results can help tailor the programs going forward to build a better experience.

20th Annual Family Medicine Research Day

June 9, 2023

ABSTRACT

- Title:** Building Bridges: How Harm Reduction Outreach Teams Foster Community Connections with People Who Use Drugs in Urban Business Districts
- Author(s):** Riley Hammond, Marliss Taylor, Elaine Hyshka, Ginetta Salvalaggio
- Background:** Canada has been dealing with an opioid poisoning deaths (OPDs) crisis since 2016. Edmonton has reported a higher number of OPDs than Alberta average since 2019, especially among the houseless. The issue is often observed in central business districts (CBDs), which can create tension and put people who use drugs (PWUD) at risk of harm. In Spring 2022, Edmonton's Street works harm reduction (HR) program began providing HR services for PWUD in the CBD. Nurse-peer outreach teams patrol CBD areas and provide overdose response services, HR supplies, basic wound care, and referrals to health and social supports.
- Purpose:** This study aims to investigate how HR outreach teams affect the health and HR practices of PWUD in urban CBDs.
- Methods:** An integrated knowledge translation (iKT) approach and a focused ethnographic design are being employed to gather data from outreach program records and in-person interviews with PWUD in Edmonton's CBD. The qualitative data is being analyzed to identify themes. Findings are being shared with project collaborators, including people with lived experience, to help with interpretation and KT planning.
- Results:** Preliminary results show the outreach teams are reducing the number of OPDs and other emergency medical services (EMS) calls in the CBD and have established positive connections with community members and various support services. Despite identifying a sense of belongingness within these settings, PWUD are often displaced by security and police presence which puts them at greater risk of isolated drug poisoning events and other health complications. This study has also identified barriers and facilitators to service accessibility at the structural, community, and individual levels.
- Conclusions:** Harm reduction outreach teams are positively impacting the health of PWUD in business settings. The experiences of PWUD can provide insight into how urban landscapes affect their health and what can be done to improve these conditions.

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ABSTRACT

- Title:** Building Community Capacity to Address the COVID-19 Social Pandemic: Documenting the Experience of ACE-PHC Teams
- Author(s):** **Ginetta Salvalaggio**, Gary Bloch, Mike Creek, Allison Eady, Dawnmarie Harriott, Claire Kendall, Nassim Vahidi-Williams, Vanessa Brcic
- Background:** Social accountability and related advocacy are responsibilities of equity-oriented primary care, especially given the COVID-19 pandemic's disproportionate impact on the health of structurally vulnerable groups. However, many primary care providers and organizations have neither the skills nor the experience to participate effectively in advocacy. Little practical guidance exists for communities and primary care team members interested in partnered advocacy, and the process of engagement and partnership has not been studied.
- Purpose:** 1) Document the structures, principles, and processes required for successful community advocacy initiatives in partnership with primary care. 2) Develop best practice recommendations for future partnerships between community groups and primary care organizations.
- Methods:** Community-based participatory approach, wherein community and primary care partners collaborate on research questions, data collection, interpretation, and knowledge translation. Community-led and primary care-partnered Advocacy and Community Engagement with Primary Health Care (ACE-PHC) initiatives in Ontario (ensuring workers' rights), Alberta (advocating for people who use drugs), and British Columbia (addressing child and family poverty) were developed in response to worsening social circumstances arising as a result of the COVID-19 pandemic. Partnerships could access a core team of engagement experts and development resources. Semi-structured qualitative interviews and focus groups explored partnership development and activities, indicators of success, and suggestions for other groups. An analytic coding framework incorporates a priori categories from the interview guide and additional concepts emerging from interviews. Process documents (e.g. meeting minutes, workshop outlines) are being reviewed to contextualize emerging themes.
- Results:** Emerging themes from project team interviews include the critical importance of mentorship, longitudinal relationship-building, and acknowledging and sharing power and privilege. Community organizing requires an in-depth understanding of community culture, priorities, and needs. Teams frequently cited pandemic restrictions, politics, and time constraints as key challenges in carrying out advocacy, and cited existing allies and strategic alignment as key supports. Highlighted team successes include strengthened relationships and increased capacity for future advocacy.
- Conclusions:** Given appropriate supports, community-primary care advocacy partnerships are feasible and can benefit all partners. The project team will use the results of this research to inform the development of guidelines and resources for developing community-primary care advocacy partnerships for primary care teams and communities.

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ABSTRACT

- Title:** Swap Your Inhalers! Reducing Carbon Footprint When Prescribing Inhalers.
- Author(s):** Nathan Dlugos, **Liane Kang**, Murphy Watson
- Background:** Metered-dose inhalers (MDIs) contain hydrofluorocarbon propellants that have a large greenhouse gas footprint on our planet. 100 doses of a metered-dose inhaler are estimated to have the same carbon footprint as a 260 km car ride. Global warming is one of the largest health threats of today for all patients as we are experiencing more extremes in weather, infectious diseases, and food and water scarcity. We can encourage the use of dry-powdered inhalers (DPIs) that are more eco-friendly.
- Purpose:** We investigated the use of metered-dose inhalers versus dry-powdered inhalers in the MacEwan University Health Centre (MUHC).
- Methods:** For our audit, we looked at adults who were prescribed inhalers between January and March 2023. We excluded prescriptions which included a spacer. We then identified what percentage of prescriptions were MDIs versus DPIs (or Smooth Mist Inhaler).
- Results:** Out of all the prescribed inhalers between January and March 2023, 52% were DPIs and 48% were MDIs. 73% of all prescribed MDIs were Ventolin/Salbutamol. 95.7% of all prescribed SABAs were prescribed as MDIs.
- Conclusions:** Through this audit, the MUHC has made important changes to improve our planetary health by encouraging the use of more eco-friendly inhalers. We have displayed infographics in clinic for patient-initiated device switches, reviewed inhaler techniques with patients, distributed green options/costs information to prescribers, and reminded prescribers about reducing inhaler prescriptions that are not medically necessary (i.e. post-viral cough). Future practice and quality improvements can focus on spirometry in suspected asthma and COPD patients as well as a comparison of the use of MDI and DPI rescue inhalers.

20th Annual Family Medicine Research Day

June 9, 2023

ABSTRACT

- Title:** Good for the Planet and Good for our Clinics: Tools for Reducing Waste in Medical Settings
- Author(s):** Sophie Thornton, Shari Fallis, Karen Louie
- Background:** In high-income nations such as Canada, healthcare systems depend on linear supply chains that frequently employ single-use, disposable medical devices and PPE throughout hospital and clinical settings. Over recent decades, the health care sector has broadly adopted single-use disposables based on the perception that these materials are safer than reusable devices, yet there is no compelling evidence that these devices effectively reduce healthcare acquired infections. Historically, little emphasis has been placed on environmental considerations in the Canadian healthcare system, but in the face of a changing climate, there has been increased interest in developing more sustainable medical practices.
- Purpose:** The Green Toolkit project aimed to identify key sources of waste, and simple ways for primary care settings to reduce unnecessary waste production.
- Methods:** A literature search was conducted to identify sources of single-use and plastic waste in primary care clinics with the strongest evidence for cost-effectiveness, sustainability, and patient safety. The key interventions were developed into a physician-facing “Green Toolkit” to provide simple sustainable changes for family medicine clinics.
- Results:** Switching to reusable gowns was found to divert landfill waste while saving on costs of isolation gowns without sacrificing safety standards. Disposable gloves were identified as a potential modality of waste-reduction; numerous studies have found that clinicians over-use disposable gloves. Acrylic specula, used for pelvic exams, are an additional source of plastic waste. It was found that reusable speculums were a more sustainable choice without sacrificing clinical utility. Lastly, at this time, there are no indications that disposable exam table paper is beneficial to patient health when compared to standard environmental cleaning procedures.
- Conclusions:** Key methods to reduce waste safely and cost-effectively in clinical settings include implementing reusable patient and PPE gowns, reducing unnecessary glove use, switching to stainless steel speculums for pelvic exams, and decreasing use of exam table paper. Our team developed educational resources for clinicians to easily implement these changes.