



KNOWLEDGE TRANSLATION CANADA

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# **KT CANADA ANNUAL SCIENTIFIC MEETING PROGRAM**

May 2019



## Knowledge Translation Canada Annual Scientific Meeting 2019

Thursday, May 30 – Friday, May 31, 2019

Delta Hotels by Marriott Winnipeg  
Winnipeg, MB, Canada

The Planning Committee would like to welcome you to the tenth KT Canada Annual Scientific Meeting.

We would like to acknowledge that the land we are on today, which we now call the city of Winnipeg, is the ancestral land of the Anishinaabeg, Dakota, and Ininiwak, and the homeland of the Métis.

We would like to honour the Elders and Knowledge Keepers, both past and present, and we hope to learn and respect the history and culture of the communities that have come before and presently reside here.

We respect the treaty of this land, Treaty 1. We acknowledge the harms and mistakes of the past and present, and we dedicate ourselves to move forward in partnership with First Nations, Inuit and Métis communities in the spirit of reconciliation and collaboration.

We recognize, and we are grateful to have, this opportunity to conduct the work of KT Canada on this land, and we encourage all of the participants here today to consider and reflect on our places on this land.

The main theme of this year's meeting is 'Advancing the science of integrated knowledge translation'. Both of our plenary speakers – Drs. Ian Graham and Anita Kothari - have had "hands on" experience with this important topic. Interspersed throughout the days are a workshop, oral presentations, and panel discussions on various topics that are linked to integrated knowledge translation and to KT research including:

1. Optimising knowledge distillation;
2. Understanding the determinants of knowledge use;
3. Selecting, tailoring and evaluating effectiveness and efficiency of KT interventions; and,
4. Sustaining KT.

The poster session is an opportunity for all participants to see firsthand some of the exciting KT research being conducted nationally and internationally in two relaxed, informal sessions that facilitate networking. Please take advantage of the networking information included in this package to find peers with similar research interests.

We would also like to thank the George and Fay Yee Centre for Healthcare Innovation, the Rady Faculty of Health Sciences and the Office of the Vice President (Research & International) at the University of Manitoba for their generous support of this event.

We are very excited about the opportunity to host this annual scientific meeting in KT and about the program! We think that you will find the program exciting and look forward to hearing your suggestions for future meetings and developing next year's program with the same enthusiasm! We thank all of you for your interest in this meeting and for sharing your expertise and experience. We also thank our coordinator, Meghan Storey, for organizing this event.

Sincerely,

Melissa Brouwers, Janet Curran, David Johnson, Terry Klassen, Cheryl Koehn, France Légaré, Linda Li, Kathryn Sibley and Sharon Straus



# Program at a Glance

Program at a Glance	Title
Opening Lecture	
Dr. Ian Graham Dr. Anita Kothari	Thinking deeper about integrated knowledge translation: What comes next?
Panel Discussions	
Dr. Joyce Dogba, Dr. Charmayne Dubé, Dr. Michelle Driedger, Margo Powell, Dr. Julianne Sanguins	How to engage under-represented populations
Dr. Ahmed Abou-Setta, Thomas Beaudry, Dr. David Johnson, Carolyn Shimmin	Solutions for overcoming challenges in engaging stakeholders
Workshop	
Patricia Roche, Carly Leggett, Carolyn Shimmin, Ogai Sherzoi, Dr. Kathryn Sibley	Planning for partnership: A roadmap for engaging knowledge users in research
Oral Presentations <i>In order of appearance</i>	
Dr. Jasmin Ma	Improving the implementation of a successful physical activity intervention in the physiotherapist setting
Dr. Kiran Pohar Manhas	Early-Adopters' experiences of implementing a new model of care in community rehabilitation
Dr. Lisa M Puchalski Ritchie	Impact of a knowledge translation intervention on tuberculosis treatment completion rates in Malawi
Karen Spithoff	Assessing barriers and facilitators to implementation of an early rehabilitation bundle in a pediatric intensive care unit
Dr. Ali Ben Charif	Implementation research on shared decision making in primary care: An inventory of intracluster correlation coefficients
Melissa Demery Varin	An integrated knowledge translation project exploring determinants of single fraction palliative radiation therapy for uncomplicated bone metastases
Zeinab El-Masri	Maximizing research impact on cancer prevention: An integrated knowledge translation approach used by the Canadian Population Attributable Risk of Cancer (ComPARE) study
Jacqueline Roberge-Dao	The development of a novel methodological approach to measuring evidence-based practice in rehabilitation
Dr. Stephanie Chesser	Using a citizen science approach to explore the age-friendliness of an urban neighbourhood
Dr. Erin Faught	Establishing a knowledge foundation for the creation of a Participant Advisory Committee (PAC) for Alberta's Tomorrow Project (ATP), a longitudinal cohort study
Dr. Femke Hoekstra	Principles, strategies, outcomes, and impacts of integrated knowledge translation and other research partnership approaches: A review of reviews

Dr. Shannon Scott	Developing and evaluating two knowledge translation tools for parents with a child with fever
<b>Program at a Glance</b>	<b>Title</b>
<b>Posters</b>	
Dr. Davina Banner - #13	The Canadian Community Utilization of Stroke Prevention study in atrial fibrillation in the Emergency Department (C-CUSP ED)
Dr. Davina Banner - #22	Patient and public engagement in integrated knowledge translation research: Are we there yet?
Dr. Maulik Baxi - #1	Affecting change in the midst of a crisis - piloting a two-pronged strategy to opioids focused on tackling patient care and physician health
Emily Belita - #12	Assessing competence attributes of Evidence-Informed Decision-Making (EIDM) in nursing: A psychometric systematic review of measures
Lynsey Burnett - #10	Using an integrated knowledge translation approach to guideline development: A strategy for engaging patients in the development of a clinical practice guideline on screening in primary care
Alyson Campbell - #2	The development and usability evaluation of an interactive infographic as a knowledge translation tool for pediatric acute otitis media
Marcella Campbell - #9	Supporting implementation of an electronic health record in long term care by developing a pre-implementation survey
Dr. Genevieve Creighton - #3	The KT pathways: An iKT approach to creating a tool for assessment and learning
Rosmin Esmail - #4	A knowledge translation theory, model or framework for health technology reassessment: Does one exist?
Dr. Amédée Gogovor - #8	Quality of reporting of scaling up strategies for evidence-based practices
Stacey D. Guy - #17	The development and formative evaluation of a clinical practice implementation toolkit for health care providers
Dr. Clayon Hamilton - #5	A conceptual evaluation framework for an initiative to engage patients, families, caregivers, and the public in a provincial health-care system: A scoping review protocol
Dr. Megan Highet - #16	From “bridging the gap” to “closing the loop”: Examining the Alberta cancer prevention legacy fund’s approach to research as an integrated KT (iKT) organization
Dr. Kerry Husk - #15	Social prescribing: Developing a nuanced evidence base in collaboration with clinical practice
Alia Januwalla - #14	CHOICES: Using an integrated KT approach to co-create patient education tools for lipid management in Ontario
Dr. Maya Jeyaraman - #21	Patient and public engagement in a systematic review: A case study
Masood Khan, Dr. Kathryn Sibley - #20	Disseminating the foundations of knowledge translation science and practice: A quantitative descriptive evaluation of reach and engagement of the KnowledgeNudge blog and Twitter profile
Lisa Knisley - #23	Developing a parent advisory group for a knowledge mobilization network in pediatric emergency medicine: A road map
Sarah Turner - #34	Stakeholder engagement to inform strategies for improving breastfeeding education in Manitoba schools: Preliminary results

Jenny Leese - #19	Using physical activity wearables in self-management from the perspectives of persons living with arthritis: A qualitative evidence synthesis
Program at a Glance	Title
Posters (Continued)	
Graham G Macdonald - #18	Patient engagement as personal transformation: A narrative analysis of patient experience as engaged partners in research
Dr. José Massougbodji - #27	Dissemination of research results in the public libraries network: An integrated knowledge transfer project
Rhyann McKay - #26	What strategies influence integrated knowledge translation partnerships? A retrospective analysis of a partnership that aimed to understand emergency department use
Ann W Outlaw - #25	Connecting policymakers to disability and rehabilitation evidence
Marie-Hélène Poirier - #35	A tool for prevention of musculoskeletal disorders among nursing staff: Dissemination and evaluation strategies
Jananee Rasiah - #6	Integrated knowledge translation meets patient engagement: A case study in critical care to advance patient-oriented research
Jacqueline Roberge-Dao - #24	A mixed-methods approach to understanding partnership experiences and outcomes of projects from an integrated knowledge translation funding model in rehabilitation
Jasmine Sawadogo - #33	Effects of extended scope of practice in family physicians: A rapid review involving knowledge users
Samantha Seaton - #7	Creating historical maps of adoption to facilitate deaddoption: A scoping review
Majidullah Shaikh - #32	Understanding knowledge-to-action processes in a pilot study of implementing trauma-informed approaches in community sport settings
Dr. Erna Snelgrove-Clarke - #31	Embedding clinical research: Building an interdisciplinary person centered program of research
Karen Spithoff - #30	Evaluating the implementation of a program to improve screening and communication of risk of violent, aggressive, and responsive patient behaviours in a hospital setting
Alexie Touchette - #29	Asynchronous online focus group: A methodological approach to engage Canadians with limited mobility
Dr. Gabrielle Zimmermann - #28	Are researchers getting i(K)T?
Dr. Hervé Zomahoun - #11	Pitfalls of scaling up health interventions: A qualitative study followed by a rapid literature review

*KT Canada would like to thank our sponsors for their generous contributions.*



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Health Sciences

# Plenary Speakers

## **Dr. Ian Graham, University of Ottawa**

@lanDGraham1, @IKTR\_Network

Ian Graham, PhD, FCAHS, FNYAM, FRSC is a Professor in the School of Epidemiology and Public Health at the University of Ottawa and a Senior Scientist at the Centre for Practice-Changing Research at the Ottawa Hospital Research Institute. From 2006 to 2012 he was seconded to the position of Vice President of Knowledge Translation at the Canadian Institutes of Health Research. His research program focuses on understanding how engaging patients and other stakeholders in the research process (known as integrated knowledge translation) works and the impact it produces. He is co-ordinator of the Ottawa Model of Research Use; the Practice Guideline Evaluation and Adaptation Cycle; the Knowledge to Action framework; and a founding member of the international ADAPTE collaboration.



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## **Dr. Anita Kothari, University of Western Ontario**

@anitarena

Anita Kothari is an Associate Professor in the School of Health Studies at the University of Western Ontario. Her research focuses on understanding how to best support the use of research and knowledge in healthcare decision-making; within this domain, she concentrates on integrated knowledge translation (i.e., research co-production) particularly in public health systems and services. Her academic background involved training in health research methodology, population health, and health policy and services. She is a member of the College of the Royal Society of Canada.





# Panelists

## **Dr. Ahmed Abou-Setta, University of Manitoba -- @CHImbca**

Dr. Abou-Setta is Director of Knowledge Synthesis, George and Fay Yee Centre for Healthcare Innovation (University of Manitoba) and Manitoba SPOR SUPPORT Unit. He leads and supports patient-oriented research including clinical practice guidelines, systematic reviews, and overviews of reviews. His work has been featured in JAMA, BMJ, CMAJ, Annals of Internal Medicine, Cochrane and WHO publications. In addition, Dr. Abou-Setta is leading innovative research into methods for improving and streamlining the systematic review process. Furthermore, Dr. Abou-Setta is regularly involved in training of students and clinical professionals through an array of consultations, teaching, and collaborative research on knowledge synthesis projects.



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## **Thomas Beaudry, George & Fay Yee Centre for Healthcare Innovation**

Residing in Winnipeg, Manitoba, a proud Indigenous man; a proud father of three, two young men and a young woman, and a mishoom of 2 boys. A graduate of the Centre for Indigenous Environmental Resources (CIER), with a certificate in Environmental Protection, with the focus on environmental-related issues concerning Indigenous peoples and communities.



*Health of the land is inseparable from the health of the people and vice versa. A healthy environment, such as water, ensures healthy people.*

A goal of his is the collaboration between environmental and healthcare fields, by being a "bridge," a facilitator in these fields and with Indigenous people in order to assist with creating a way for healthy people and communities.

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## **Dr. Joyce Dogba, Laval University -- @JoyceDogba**

Dr. Joyce Dogba is trained as a physician in Togo. She holds a Master degree in health economics and a PhD in Public Health. She is currently an assistant professor in the Department of Family and Emergency Medicine at Laval University. Her research agenda comprises evaluation of collaborative practices with patients-users in research and the education of health professionals. She is also interested in advancing stakeholders engagement science regarding how to meaningfully involve the underserved including immigrants in patient-oriented research. Joyce Dogba is a co-lead on patient engagement within the SRAP/SPOR Network in Diabetes and Related Complications.



### **Dr. S. Michelle Driedger, University of Manitoba**

S. Michelle Driedger is a Professor in the Department of Community Health Sciences at the University of Manitoba and a proud member of the Manitoba Métis nation. Her broad areas of research interests include risk communication in primary care and public health, risk perception, and knowledge translation under conditions of uncertainty. Drawing primarily on qualitative and participatory methods, she is particularly interested in how risk communicators can meaningfully engage public audiences to enable informed decisions about health recommendations, including protective behaviours, that can be adopted for themselves and their family. Her research explores these aspects with both general population and Métis contexts. She has some current funded studies looking at vaccine hesitancy, health priorities of Indigenous youth, and patient-provider communication around non-recommended tests and procedures.



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### **Dr. Charmayne Dubé, University of Manitoba**

Dr. Charmayne Dubé has been employed in the field of intellectual disabilities for 30 years and continues to be passionate about improving quality of services and ultimately, quality of life for individuals who are supported in the community. She is the Senior Director of Resource Services within New Directions, a non-profit organization, and an Adjunct Professor in the Department of Occupational Therapy, College of Rehabilitation Sciences in Manitoba.

Dr. Dubé completed an undergraduate degree in Medical Rehabilitation (Occupational Therapy), a Master of Science (Family Social Sciences) degree, and her Doctoral program in Applied Health Sciences through the University of Manitoba.



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### **Dr. David Johnson, University of Calgary**

Dr. David Johnson is: Senior Medical Director for the Alberta Health Services Maternal, Neonatal, Child and Youth Strategic Clinical Network; a pediatric emergency physician and medical toxicologist; and a Professor of Pediatrics, Emergency Medicine, and Physiology and Pharmacology in the Cummings School of Medicine, University of Calgary. His research interests are primarily focused on the management of common childhood respiratory emergencies, and ensuring primary health care professionals utilize 'best evidence' in managing these diseases.



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### **Margo Powell, Abilities Manitoba -- @margo\_powellWpg**

In March 2015, Margo Powell assumed the role of Executive Director at Abilities Manitoba.

Margo began working in the disability sector in the early 1990's. She has worked for small and large community organizations both in Winnipeg and rurally. Her experience also includes running a provincial organization.

Margo is a proud alumni of the Disability and Community Support Program at RRC and has her degree in Community Rehabilitation and Disability Studies from the University of Calgary. Her experience also includes teaching the Foundations Course for RRC and sitting on the original Staffing Stabilization Committee. She was also the community representative on the MDC transition team 10 years ago and has taught Vulnerable Person's Act training. Margo is passionate about inclusion, equality, community living and quality of life.



### **Dr. Julianne Sanguins, Manitoba Métis Federation Health and Wellness Department**

Julianne Sanguins is the Research Program Manager in the Health & Wellness Department at the Manitoba Métis Federation, an Assistant Professor in the University of Manitoba's Department of Community Health Sciences, and an Adjunct Scientist with the Manitoba Centre for Health Policy. Julianne is an RN and holds a PhD in Nursing. The Research Program Manager with the Manitoba Métis Federation-Health & Wellness Department (MMF-HWD) since 2006, she has been involved in numerous studies in which the aim has been to develop knowledge of the health of Métis in Manitoba. As part of a dedicated team of researchers, they conducted the first population-based provincial study that compared the health of Métis to all others Manitobans. The two-year study (known as the Métis Atlas) was funded by Manitoba Health and was published in June 2010. As a result of that study provincial chronic disease surveillance program of the Métis population was launched. The Métis Atlas has also identified new areas of research and several qualitative and quantitative studies have been completed. Moreover, the study provided quantitative evidence for health policy planning and program adaptation. She continues to work with the Manitoba Métis Federation Health & Wellness Department managing all aspects of the academic needs of studies, including directly supervising research staff.

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### **Carolyn Shimmin, University of Manitoba -- @CarolynShimmin**

Carolyn Shimmin is the Patient and Public Engagement Lead at the George and Fay Yee Centre for Healthcare Innovation (CHI), Manitoba's SPOR SUPPORT Unit. In this role, she is responsible for all patient/public engagement in health research programs and services offered at the Centre, including the PE Lunchtime Learning Series, the PE Champions Program, the Funding Award to Support Patient/Public Engagement in Health Research, and the CHI Patient Engagement Collaborative Partnership. With a bachelor's degree combined honours in journalism and political science and a masters degree in gender studies, Carolyn is a big proponent of using a social justice and health equity lens in patient/public engagement and writes and speaks about the importance of incorporating a trauma-informed intersectional analysis in order to build truly inclusive and safe spaces within patient and public engagement in health research.



# Workshop

## Planning for partnership: A roadmap for engaging knowledge users in research

### Presenters:

Roche P, Leggett C, Shimmin C, Sherzoi O, Sibley K

@TrishMcNish, @kmsibley, @CarolynShimmin

### Institution:

George & Fay Yee Centre for Healthcare Innovation and University of Manitoba

### Background:

Engaging patients, families, caregivers, communities, organizations, clinicians, and decision-makers in research can be both rewarding and challenging. Thoughtful planning is critical for maximizing the success of research partnerships and ensuring the best experience for all involved. Researchers are uniquely positioned to address these issues early in the research process when they are designing and planning projects. To facilitate and support health researchers in planning for partnerships, the goal of this workshop is to increase knowledge and skills regarding: (i) diversity and inclusivity in partnerships and engagement; (ii) appropriate engagement methods that are sensitive and acceptable to real-world contexts and which span the research continuum; and (iii) budgeting for partnership and engagement.

### Methods:

Using a combination of didactic and interactive methods, participants will be introduced to key principles and considerations for planning meaningful and inclusive partnerships and engagement. This workshop will use the Centre's tools and resources for patient-oriented research as the basis for its curriculum. This includes a workbook for critical reflexive practice, a participatory engagement methods decision aid, and a budget planning template for engagement. These tools were developed using a trauma-informed, intersectional lens and align with CIHR's Strategy for Patient-Oriented Research. Each tool can be adapted/ applied to multiple knowledge user groups. Participants will be encouraged to consider and reflect on an example or case study of a project from their own research in which they would like to engage knowledge users. Working in small groups, participants will use the workshop materials and resources to develop their own individualized roadmap for engagement.

### Anticipated outcomes:

By the end of the workshop, participants will be able to:

1. Describe methods to maximize diversity and inclusivity in research partnerships and engagement;
2. Select appropriate participatory methods for engagement; and
3. Develop an appropriate engagement budget. Considering case examples from their own research, participants will be better equipped to plan and co-develop inclusive and meaningful partnerships and engagement in their work, and know where to access additional resources.

# Oral Presentations

*In order of presentations*

## **Improving the implementation of a successful physical activity intervention in the physiotherapist setting**

Ma JK, Antoniuk NA, Li LC, and Martin Ginis KA

**Presenter:**

Dr. Jasmin Ma --- @JasminkMa

**Institution:**

Arthritis Research Canada

**Background:**

The ProACTIVE SCI intervention has demonstrated the largest improvements in physical activity following a behavioural intervention among people with physical disabilities in a randomized controlled trial to date. Identifying the key behaviour change techniques and delivery considerations responsible for these impressive results will help scale the intervention and increase implementation effectiveness in real-world settings.

**Methods:**

All physical activity coaching sessions (n=123), involving a researcher provider and 14 participants, were recorded and transcribed verbatim. Sessions were coded independently by two trained reviewers using the Behaviour Change Technique Taxonomy V1. Semi-structured interviews were conducted following the intervention. Participants were probed for whether and how the intervention addressed previously identified key delivery components for intervention effectiveness as well as the emergence of new themes using an abductive thematic analysis.

**Results:**

Twenty-six unique behaviour change techniques were delivered across the intervention. The most commonly delivered techniques included feedback on behaviour, instructions on how to perform a behaviour, social support (emotional and practical), action planning, and problem solving. The semi-structured interviews revealed the intervention aligned with previous patient-identified key delivery components for intervention effectiveness including diversity of the intervention and importance of communication. Three additional themes were abductively identified including organized communication, addressing the whole person, and confidence of the interventionist.

**Conclusion:**

These findings help to focus the key behaviour change techniques and delivery factors to consider when implementing the ProACTIVE SCI physical activity intervention. These findings will be used to inform the training and implementation of the intervention among physiotherapists in British Columbia's largest rehabilitation hospital.

# Early-adopters' experiences of implementing a new model of care in community rehabilitation

Manhas KP, Olson K, Churchill K, Miller J, Teare S, Vohra S, and Wasylak T

## Presenter:

Dr. Kiran Pohar Manhas

## Institutions:

University of Alberta and Alberta Health Services

## Background:

In 2017, Alberta Health Services released a redesigned 6-domain Model of Care for community rehabilitation to promote patient-centred care, provincial standardization, and utilization of patient-reported measures. Eighteen early-adopter teams implemented the Model using a one-year Innovation Learning Collaborative (in-person learning sessions; balanced scorecards) prior to eventual spread to 122 sites. More research is required on developing, implementing and evaluating models of care. Understanding model-of-care implementation will expand implementation science knowledge, particularly around factors influencing model-of-care outcomes and sustainability in, and between, jurisdictions.

## Methods:

Using focused ethnography, we explored experiences of early-adopter providers and provincial consultants involved in the community-rehabilitation Model implementation. We used focus groups (or interviews for feasibility/confidentiality). Purposive sampling ensured representation across geography, service types and patient populations. Recruitment included team-specific overview presentations, then circulation of consent forms. Team-specific focus groups were onsite, at participants' convenience, and led by a researcher-moderator with a co-facilitator taking notes. A semi-structured question guide promoted discussions on implementation experiences including interesting or challenging occurrences; perceptions of Model impact; and, suggested definitions of successful implementation. The moderator and co-facilitator debriefed post-group; the moderator captured field notes from personal and co-facilitators' observations. Focus groups and interviews were audio-recorded and transcribed. Data collection and analysis were concurrent to saturation. Using NVivo, transcripts were coded for phrases related to implementation, including experiences, successes and challenges. Similar ideas were collapsed forming themes, with tentative inter-theme relationships identified. Data analysis considered participant interactions and group attributes. Tactics for rigour include peer debriefing, peer review of coding by co-facilitators, negative case analysis, use of thick description, and an audit trail.

## Results:

We completed 12 focus groups (2-7 participants/group) and seven interviews between March 2018 to January 2019 (n=52). Participants were 89.6% female, and represented diverse professions including physiotherapy, occupational therapy, respiratory therapy, and social work. Teams varied on which health service and patient population they focused their Model implementation. Some teams introduced novel group programming. While data analysis is ongoing, these preliminary findings will be refined for May 2019. Early-adopter teams had different understandings of the Model itself: either a foundational framework or the novel programming. Two over-arching themes describe professional experiences of community-rehabilitation Model implementation: logistical details and communication. Logistical details characterize challenges including lack of clarity on the Model; staff and management turnover; in-person activities that involved too diverse an audience or lacked substantive education; optional metrics development for the balanced scorecard; and lack of provider access on the patient-reported measures collected. Communication issues underlie feelings of success including good, consistent communication from team leads; management support; and, in-person training that provided diverse disciplines a common language. Definitions of success were divergently framed as team-specific experiences and as patient-metric-focused. Limitations include pre-existing team dynamics may influence discussions; research-trained co-facilitators were not available for all sites; and interview-to-focus-group comparisons are not ideal.

## Conclusions:

While analysis remains ongoing, suggestions for success in Model spread are evident, including greater in-person support; more documentation to support executing the Model essentials; and supported horizontal and vertical communication with the adopting teams.



# Impact of a knowledge translation intervention on Tuberculosis treatment completion rates in Malawi

Puchalski Ritchie LM, van Lettow M, Makwakwa A, Straus SE, Kip E, Mundeve H, Hamid JS, Zwarenstein M, Barnsley J, Schull MJ, Chan AK, Martiniuk AL C, and van Schoor V

## **Presenter:**

Dr. Lisa Puchalski Ritchie

## **Institution:**

University of Toronto

## **Background:**

With the global shortage of skilled health workers currently estimated at 7.2 million, outpatient tuberculosis (TB) care is commonly task-shifted to lay health workers (LHWs) in many low- and middle-income countries where the shortage is greatest. LHWs therefore play a critical role in addressing the high TB burden in such settings. However, while shown to improve access to care and some health outcomes, including TB treatment adherence and outcomes, lack of training and supervision limit the effectiveness of LHW programs. Lack of TB and job-specific knowledge were identified by LHWs in Malawi as the primary barrier to their work. Our objective was to refine and evaluate a knowledge translation intervention developed to address common causes of non-adherence and LHW training needs.

## **Methods:**

We employed a concurrent mixed-methods design including: a pragmatic cluster randomized controlled trial, process evaluation and qualitative sub-study. Trial participants involved 103 health centers (HCs) providing TB care in 4 districts in the southeast Zone of Malawi. The primary outcome was proportion of patients successfully treated (cured + treatment complete). Our process evaluation included interviews with LHWs and patients at participating sites, and a document analysis to assess barriers to and facilitators of implementation. The sub-study undertaken to understand the high variability in uptake of the intervention across sites, included interviews with peer trainers and LHWs from high and low participation HCs in each district, to assess the impact of peer trainer leadership on implementation.

## **Results:**

A total of 51 HCs received the intervention and 52 HCs received the control. Four HCs in the intervention arm and 6 in the control arm had no eligible patients, and 370 of 1169 patients had missing outcome, HC, or demographic data, leaving 798 patients for analysis. Given the high proportion of missing outcome data, a general linear mixed model was utilized to examine factors related to whether the outcome was missing. Randomization group was not related to missing outcome data, however, age and TB type were significantly related and were included in the primary analysis model. The primary analysis employed multilevel modeling adjusted for correlation due to clustering and stratified by district, with age, gender and TB type, included in the model. A non-significant trend for intervention effectiveness on successful treatment was found, (adjusted odds ratio = 1.352 [95% CI, 0.926, 1.975]). Lack of incentives was the primary barrier to implementation. Successful peer trainer leaders trained a large number of staff and achieved high fidelity implementation of the intervention at their HC. Compared to less successful peer trainers, successful peer trainer leaders were reported to provide a clear introduction to the program, utilize a collaborative approach to planning, to address challenges proactively and as issues arose, to recognize and appreciate the efforts of their trainees and were described as knowledgeable and supportive.

## **Conclusions:**

A trend toward improved treatment completion was seen with the intervention. Other benefits included improved knowledge and patient care. Lack of incentives was the primary implementation barrier, with strong peer trainer leadership an apparent facilitator.

## Assessing barriers and facilitators to implementation of an early rehabilitation bundle in a pediatric intensive care unit

Kerkvliet K, Spithoff K, Schwalm JD, Brouwers MC, and Choong K

### Presenter:

Karen Spithoff

### Institution:

McMaster University

### Background:

Although the mortality rate for children receiving treatment in pediatric intensive care units (PICUs) has fallen over the past few decades, there has been a significant increase in the rate of PICU-acquired complications. These complications lead to unnecessary delays in patient recovery and poor functional outcomes. A comprehensive care bundle was developed to enhance early recovery for critically-ill children and was implemented in a PICU. Our objective was to identify barriers and facilitators to implementation of the bundle in order to inform future implementation activities and optimize its sustainability and effectiveness.

### Methods:

A qualitative approach using semi-structured focus groups was used to identify implementation barriers and facilitators. Clinical staff and trainees at the McMaster Children's Hospital (MCH) PICU, including pediatric residents, fellows, physicians, nurses, and allied health professionals, were invited to participate in one of three focus groups sessions. Focus group questions were generated based on selected constructs of the Consolidated Framework for Implementation Research (CFIR), with additional questions tailored to specific bundle resources. Focus groups were led by a facilitator and audio-recorded with permission of the participants. Verbatim transcripts of the recordings were coded using NVivo software and results were thematically organized based on CFIR constructs. Key identified barriers and facilitators were reviewed and recommendations for modifications to bundle content and processes were provided to the bundle implementation team.

### Results:

A total of 45 clinical staff and trainees participated in the three focus group sessions. Overall, participants thought that the care bundle was beneficial to patients and promoted early rehabilitation; however, staff indicated that its implementation was inconsistent across individuals and across disciplines. Key barriers to implementation included lack of knowledge and skills related to the intervention bundle among pediatric residents, incompatibility of intervention processes with workflow, lack of perceived importance of completing a bundle-specific daily goals checklist, and varied levels of comfort among PICU staff with applying clinical aspects of the bundle. Recommendations made to the bundle implementation team to address these barriers included development of a training program for trainees and staff, revisions to the process used to complete the daily goals checklist to better align with workflow, and improvements to the resources made available to staff and trainees for applying specific components of the intervention bundle. The bundle implementation team is using these results and recommendations to modify the way in which daily goals related to the bundle are documented and communicated by the care team and create a sustainable training program.

### Conclusions:

Qualitative analysis of the focus group results identified key modifiable barriers and facilitators to implementation of an intervention bundle recommending best practices at a tertiary care PICU. These results will be used to inform ongoing and future implementation of the intervention at PICUs to improve outcomes for critically-ill children.



# Implementation research on shared decision making in primary care: An inventory of intraclass correlation coefficients

Ben Charif A, Croteau J, Adekpedjou R, Zomahoun HTV, Adisso L, and Légaré F

## **Presenter:**

Dr. Ali Ben Charif -- @ABC\_SDM

## **Institutions:**

The Québec SPOR-SUPPORT Unit and Université Laval

## **Background:**

Cluster randomized trials are important sources of information on evidence-based practices in primary care. However, there are few sources of intraclass correlation coefficients (ICCs) for designing such trials. We inventoried ICCs for shared decision-making (SDM) measures in primary care.

## **Methods:**

We performed a secondary analysis of data involving 14 observational and interventional studies. These studies were led by the Canada Research Chair in Shared Decision Making and Knowledge Translation. Eligible studies were conducted in primary care, included at least two hierarchical levels, included SDM measures for patients or healthcare providers nested under any type of cluster (area, clinic or provider), and were approved by an Ethics Committee. We classified each measure into one of the three constructs of Sepucha and Mulley's conceptual framework: decision antecedents, decision processes, and decision outcomes. We described the characteristics of included studies and measures. We used Bayesian random effect models to estimate mode ICCs and their 95% highest probability density interval (HPDI). We summarized these estimates by calculating median and interquartile range (IQR).

## **Results:**

Six out of 14 studies were included: three cluster randomized controlled trials, two cross-sectional surveys and one before-and-after trial. From these, we selected 17 measures related to SDM for which the calculation of ICCs was possible: three binary measures and 14 continuous measures. Overall, we estimated 97 ICCs for the 17 measures across the six studies. ICCs ranged from 0 to 0.5 (median 0.03; IQR 0-0.07). They were slightly higher for process measures (median 0.03, IQR 0-0.07) than for antecedent measures (median 0.02, IQR 0-0.07) or outcome measures (median 0.02, IQR 0-0.06). Respectively in these measurement categories, "decisional conflict" (mode 0.48, 95% HPDI [0.39, 0.57]), "reluctance to disclose uncertainty to patients" (0.5 [0.11, 0.89]) and "quality of the decision" (0.45 [0.14, 0.84]) had the highest ICCs. ICCs for provider-level clustering (median 0.06, IQR 0-0.13) were higher than for other levels.

## **Conclusions:**

Overall, we observed high values of ICC estimates for SDM measures in primary care, specifically for decision process measures. Our inventory of ICCs for primary care SDM measures will help researchers better plan SDM implementation studies.

# **An integrated knowledge translation project exploring determinants of single fraction palliative radiation therapy for uncomplicated bone metastases**

Demery Varin M, Dennis K, Asad S, Graham ID, Grimshaw JM, and Squires JE

## **Presenter:**

Melissa Demery Varin -- @mdemeryvarin

## **Institution:**

University of Ottawa

## **Background:**

Bone metastases are common and painful, they impair function and worsen quality of life. The mainstay local therapy for the relief of pain from uncomplicated bone metastases is external beam radiation therapy. There is equivalence between single fraction and multiple fraction radiation therapy for pain relief in uncomplicated bone metastases, with no evidence that single fraction radiation therapy provides inferior pain relief. Additionally, single fraction therapy is more convenient and cost-effective and causes fewer acute side effects. Despite the advantages of single fraction radiation therapy, radiation oncologists prescribe single fraction only a minority of the time. Therefore, the purpose of this integrated knowledge translation project was to identify the behavioral determinants, both barriers and enablers, to Canadian radiation oncologists' use of single fraction radiation therapy for uncomplicated bone metastases.

## **Methods:**

We utilized an integrated knowledge translation approach involving knowledge translation researchers and knowledge users (radiation oncologists). Knowledge users were an integral part of the study team and were involved in all aspects of the study, including question formulation, study design, and analysis. Semi-structured interviews were conducted with Canadian radiation oncologists (knowledge users, external to the team) using an interview guide, designed based on the Theoretical Domains Framework (a robust behavior change framework comprised of 14 theoretical domains derived from 33 different health, behavioral, and social psychology theories that explain health-related behavior change). Interview transcripts were analyzed using a five-phase thematic content analysis method: 1) coding, 2) generation of belief statements, 3) generation of themes within domains, 4) generation of overarching themes, and 5) classification of overarching themes (barriers or facilitators).

## **Results:**

Interviews were conducted with 38 radiation oncologists, representing all Canadian provinces. Thirteen overarching themes were identified of which two (15%) were barriers, six were enablers (46%) and five (39%) were conflicting (either a barrier or enabler depending on the participant interviewed). The main two barriers themes were: 1) single fraction is associated with a higher risk of retreatment (n=31, 82%), and 2) some radiation oncologists have concerns about using single fraction near the spine and with large treatment volumes (n=28, 74%). The top three facilitators were: 1) most radiation oncologists are aware of the evidence and guidelines on single fraction (n=38, 100%), 2) experience with single fraction can increase its use (n=37, 97%), and 3) single fraction is convenient for patients (n=37, 97%).

## **Conclusions:**

The novel use of the Theoretical Domains Framework to explore the behavioral determinants of the use of single fraction radiation therapy for uncomplicated bone metastases has identified a range of internal and external factors that encourage and discourage its use. Our results, informed by interviews with knowledge users, are being used to design an intervention to increase the use of single fraction radiation in patients with uncomplicated bone metastases.

# **Maximizing research impact on cancer prevention: An integrated knowledge translation approach used by the Canadian Population Attributable Risk of Cancer (ComPARE) study**

El-Masri Z, De P, Smith L, Holmes E, Nuttall R, Brenner D, and Friedenreich C on behalf of the ComPARE Study Team

## **Presenter:**

Zeinab El-Masri -- @ZeinabEl

## **Institution:**

Cancer Care Ontario

## **Background & Objectives:**

The Canadian Population Attributable Risk of Cancer (ComPARE) study brought together a pan-Canadian team of cancer prevention researchers to estimate the number and proportion of new cancer cases, in 2015 and in the future (to 2042), that could be attributed to preventable risk factors in Canada. The study was conceptualized to provide evidence-based information that could inform cancer prevention policy and practice. To maximize the utility of the results, the ComPARE study employed an integrated knowledge translation (iKT) approach whereby knowledge users were engaged at the outset of the study. This early partnership between the researchers and knowledge users is expected to enhance the quality, relevance and reach of research findings. The objective of this presentation is to describe ComPARE's iKT approach, including governance, outputs and early reflections, which may serve as a model for other research groups and can further iKT science research.

## **Methods:**

In our governance model, knowledge users were integrated as members of the research team or members of a KT Advisory Committee. To capitalize on co-investigators' expertise, the research team was organized into five groups, or "Nodes", related to a focused area (methods, KT) or exposure group (lifestyle, environment and infections). The integrated knowledge users led the KT Node; thereby, taking a lead role on the KT activities for the study, including developing the KT Blueprint. The KT Blueprint is a four phase systematic approach to guide the planning and implementation of KT activities, including: planning, knowledge product development, dissemination and evaluation, with advisory committee engagement built-in throughout.

## **Results:**

A key output of this approach was the development of a KT Plan which outlined end-of-grant KT activities. Our early reflections on the iKT approach identified enablers and challenges. Enablers included co-investigators' commitment and attitude to iKT, support for iKT from the funding agency, having an established partnership early on, understanding of and experience in each other's area of expertise, dedicated funding for KT, clearly delineated roles, advisory committee buy-in and existing tools. Challenges included anticipating all costs, continuity of involvement, competing priorities, relationship management and geographic distance.

## **Conclusions:**

Through an iKT approach, the expertise of the knowledge producers and knowledge users was brought together in this study to produce contextually relevant information that is useful to the knowledge users. A future evaluation will determine the effectiveness and impact of ComPARE's iKT approach. In the interim, the details of the model we describe here may be useful for others interested in implementing an iKT approach and can contribute to the evidence base to help advance iKT science research.

# The development of a novel methodological approach to measuring evidence-based practice in rehabilitation

Roberge-Dao J, Mayo NE, Rochette A, Shikako-Thomas K, and Thomas A

## **Presenter:**

Jacqueline Roberge-Dao -- @jackiedao\_

## **Institution:**

McGill University

## **Background:**

Evidence-based practice (EBP) in rehabilitation is the gold standard approach to patient care. As a result, rehabilitation programs and professional bodies are focusing on teaching and promoting EBP. Yet, measuring EBP remains a challenging endeavor; it is a complex process comprised of several individual and contextual dimensions that influence a clinician's ability to enact the process. Currently, several questionnaires assess different EBP dimensions, but no single measure exists spanning the multidimensional concept of EBP in rehabilitation. This study's objective is to describe the development of an index that will evaluate a clinician's propensity to enact evidence-based practice by measuring individual and contextual factors. The specific objectives are to 1) identify items that best reflect the key EBP dimensions and 2) provide evidence of the discriminative ability of the prototype index. This project is the first of a series which will serve to create a psychometrically sound, concise yet comprehensive measure of a clinician's EBP capacity.

## **Methods:**

We used the dataset from a 4-year longitudinal study examining EBP in a sample of 128 newly graduated OTs and PTs from 28 rehabilitation programs in Canada. The original dataset consisted of 181 items from five existing measures of EBP to which Rasch Measurement Theory was applied. The best performing item for each EBP dimension was selected to be included in the prototype using threshold maps. The EBP dimensions and items were validated by a group of experts in EBP, measurement and knowledge translation. As the items selected span the continuum with near interval response options, a simple score can be created for testing using known-groups methods where the groups will be defined by profession, gender, language and practice areas. Additional testing will include correlation against initial scales.

## **Expected results:**

The index prototype comprises five items corresponding to the five key EBP dimensions. The "knowledge" dimension was omitted through expert consensus as knowledge is too extensive a construct to be truly reflected in a single item. The discriminative ability of the prototype index is currently being examined. It is expected that the individual items will demonstrate moderate convergent validity against initial scales of similar construct. We hypothesize that individuals in public practice areas will have higher scores than individuals in private practice areas, and that PTs will score higher than OTs as previous research has shown that OTs score significantly lower on the use of and attitudes towards EBP.

## **Conclusions:**

This index can be used by researchers and professional organizations to assess a clinician's propensity to have an evidence-based practice, which will support quality of care and inform areas for change. Subsequent projects will qualitatively revise the items, assign weights to each EBP dimension using preference-based methods and contribute evidence on the psychometric properties of the weighted index. This project fills a key gap in measures required to advance the use of best practices and the science of KT.

## Using a citizen science approach to explore the age-friendliness of an urban neighbourhood

Chesser SA, Porter MM, Wady M, Barclay R, Menec V, Milgrom R, Newman C, Ripat J, Sibley K, Sylvester G, and Webber S

### Presenters:

Dr. Stephanie Chesser and May Wady, citizen scientist and community member

### Institution:

University of Manitoba

### Background:

According to the World Health Organization, age-friendly environments are “accessible, equitable, inclusive, safe and secure as well as supportive”. Specific domains involved in the age-friendliness of cities have been suggested to include outdoor spaces and buildings, transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information, as well as community and health services. Globally, a variety of approaches have been taken to improve the age-friendliness of various communities, including those that incorporate community participation and collaboration. In this project, we used a collaborative citizen science approach (i.e. the pairing of lay and professional researchers) to explore the age-friendliness of an urban neighbourhood.

### Methods:

Through distribution of leaflets at public events, and community newsletter ads, residents of an urban western Canadian neighbourhood were invited to engage as citizen scientists for the project. No age restrictions were placed on who could participate in the project. In total, 10 men and women (average age of 61 years) volunteered to collect and analyze data from their neighbourhood using the Stanford University-developed DiscoveryTool and OurVoice Framework, respectively. The tablet-based DiscoveryTool app specifically allowed these citizen scientists to take geo-coded photos of age-friendly community facilitators and barriers, as well to record audio messages describing their photos. These citizen scientists then met as a group to analyze their data (photos and transcripts of the audio messages) and identify important themes. From these, the citizen scientists brainstormed priorities and possible solutions/recommendations to improve neighbourhood age-friendliness.

### Results:

In total, the citizen scientists took 146 photos of barriers and facilitators related to neighbourhood age-friendliness. From the photos and accompanying audio transcripts, the citizen scientists identified the following priorities after two, 2-hour meetings: housing, mobility, and use of community recreation centres. The citizen scientists also had discussions about issues that were not directly related to the data collected – e.g., social isolation. While numerous facilitators were identified for each priority area, there were also a number of barriers and possible solutions identified. All of this information was presented by a citizen scientist volunteer at a public stakeholder meeting in the community. The neighbourhood has now established a local age-friendly committee to advocate for the changes proposed by the citizen scientists and other community residents.

### Conclusions:

We suggest that a collaborative approach to citizen science may be valuable to the exploration of neighbourhood age-friendliness.

# Establishing a knowledge foundation for the creation of a Participant Advisory Committee (PAC) for Alberta's Tomorrow Project (ATP), a longitudinal cohort study

Faught EL, Basaraba S, Zawati MH, Minion JT, Murtagh MJ, Shen-Tu G, and Vena JE

## Presenter:

Dr. Erin L. Faught -- @erinfaught

## Institutions:

Alberta's Tomorrow Project, Cancer Research and Analytics – CancerControl Alberta and Alberta Health Services

## Background:

Alberta's Tomorrow Project (ATP) was launched in 2000 and is one of the largest (n=55,000) longitudinal health studies in North America. ATP is part of a larger Canadian consortium of cohort studies, the Canadian Partnership for Tomorrow Project (CPTP). ATP recently transitioned from the recruitment phase to being open for business as a research platform to support understanding of the causes of cancer and chronic disease. To ensure participant voice is included in ATP's planning and decision-making in this next phase, ATP is planning to implement a participant advisory committee (PAC). The motivation for this committee is both moral and methodological. Participants have a right to be involved in decision-making for the use of their data. ATP can benefit from the perspectives of participants to improve study tools, data collection, knowledge generation, and outreach. We aimed to synthesize existing evidence of participant engagement in longitudinal studies to ensure a rigorous knowledge foundation to inform the PAC's design.

## Methods:

We aimed to answer the following questions:

1. What is the scope of the activities proposed as part of the PAC?
2. Are there any existing longitudinal studies that have implemented a PAC?
3. What are the benefits and challenges of this undertaking?
4. What are the best practices related to the implementation of a PAC?
5. Do ATP's participants support the implementation of a PAC?

To address these questions, we performed 3 activities:

6. Literature search (peer-reviewed and grey)
7. Key informant interviews (other studies, participants)
8. Data analysis from survey data (n=33,994) and interviews (n=33) requesting participants' perspectives on a PAC

## Preliminary results:

Results are limited to the findings from the literature review (Activity 1), Activities 2 and 3 are currently underway (expected completion April 2019). Results from the literature review led us to define the PAC activities as consultative, not as engagement. Participants will not be engaged as co-creators of knowledge, but consulted as advisors for ATP's decision-making on a variety of topics. This critical distinction will inform the development of a Terms of Reference document to ensure participants and the study team are clear on the scope of their roles within the project.

Five longitudinal studies with a PAC have been identified. Evidence suggests that PACs are excellent opportunities to obtain feedback about practical elements of a study – most prominently, acceptability and appropriateness of study tools and design. Evidence also suggests that panel members find their role rewarding and personally beneficial, and that PACs potentially contribute to reducing attrition. Results from Activities 2 and 3 will be presented at the conference.

## Conclusions:

Forum for ongoing participant feedback are rare in cohort studies are rare, particularly for cohorts with a large geographical reach like ATP. Results from this foundational work will inform the implementation plan for ATP's PAC, which will include the development of a member handbook, Terms of Reference, and the structure of the PAC. ATP's PAC will contribute to the sparse evidence base for the value and methodology of integrating participant consultation in cohort studies.



# Principles, strategies, outcomes, and impacts of integrated knowledge translation and other research partnership approaches: A review of reviews

Hoekstra F, Sibley KM, Khan M, Mrklas KJ, Nguyen T, Vis-Dunbar M, McKay R, Neilson CJ, Crockett LK, Graham ID, and Gainforth HL

## **Presenter:**

Femke Hoekstra -- @FHoekstra\_Groot

## **Institution:**

University of British Columbia

## **Background:**

Integrated Knowledge Translation (IKT) is a research partnership approach in which researchers and stakeholders work collaboratively together on a research project. Since IKT and other research partnership approaches are promising and popular approaches to improve knowledge translation processes, funders are increasingly promoting its application in different research areas. However, a systematic overview and comprehensive understanding of the principles, strategies, outcomes, and impacts of different research partnership approaches, is lacking. This study aimed to identify principles, strategies, outcomes, and impacts reported in different types of research partnerships in different research areas.

## **Methods:**

This study is part of a Coordinated Multicenter Team approach to synthesize the research partnership literature with five conceptually-linked knowledge syntheses. In this review, the main research question was: "What principles, strategies, outcomes, and impacts are reported in different types of research partnership approaches?" Articles describing a literature review of research partnerships using a systematic search strategy were included in this review of reviews. The Revised Assessment of Multiple Systematic Reviews tool was used to assess quality. Electronic databases (CINAHL, PsycInfo, Medline, Embase, Eric, Education Source, Sociology collection, Web of Science Core Selection, JSTOR) were searched from inception to April 2018.

## **Results:**

A total of 84 reviews were included from different areas (e.g., population health, health services, biomedical research) using different research partnerships approaches (e.g., Community-Based Participatory Research, Participatory Research, Patient and Public Involvement, IKT). A large variation was found in terms and terminology used to describe the research partnership approach as well as its key domains (principles, strategies, outcomes, impacts). After thematic analyses, 17 overarching principles and 11 overarching strategies were identified and related to the following themes: foundations of the collaboration; the research process; capacity building, support, and resources; communication process; ethical issues related to the collaborative research activities. Similarly, 21 overarching outcomes and impacts on researchers, stakeholders, the community or society, and the research process were identified. Although the literature predominantly reported on the beneficial outcomes and impacts of research partnerships, challenging outcomes and impacts were also identified.

## **Conclusions:**

This review of reviews provides a guide through the diverse literature on research partnerships in different research areas and with different stakeholder groups. An extensive set of research partnership principles, strategies, outcomes, and impacts was identified from the included reviews. These findings will form the basis for our next conceptually-linked knowledge syntheses. Our findings can be used as a first step to improve the reporting of the literature on IKT and other research partnership approaches, and thus contribute to advancing the science of IKT. Ultimately, our literature reviews will contribute to improving the quality and conduct of IKT and other research partnership studies.

# Developing and evaluating two knowledge translation tools for parents with a child with fever

Scott S, Hartling L, and the TREKK Team

## **Presenter:**

Dr. Shannon Scott -- @echoKTresearch

## **Institution :**

University of Alberta

## **Background:**

Fever is a common pediatric health issue and although most can be managed at home, a large number of emergency department (ED) visits are attributed to fevers. Providing parents with support and education on how to assess and manage a child's fever at home and when to seek emergency care are needed improve outcomes for families and promote appropriate health service use. Arts-based knowledge translation (KT) tools that communicate complex health information have the potential to reduce unnecessary emergency department (ED) utilization and improve health outcomes by creating understanding. Using patient engagement principles we developed and evaluated two KT tools (video and interactive infographic) on fever using a multi-phase research process.

## **Methods:**

First we conducted a knowledge synthesis of the literature exploring parents' experiences having a child with fever. Simultaneously we conducted a qualitative descriptive study to investigate parents' experiences with childhood fever (manuscript in development). Then using findings from both phases we developed tool prototypes. As there was limited consensus on pediatric fever management we worked to garner consensus with Canadian pediatric emergency medicine experts. Next refinements were made and then the prototypes were vetted by medical experts and our parent advisory group. Each tool was then evaluated by parents, who were recruited to participate in an electronic usability survey in two ED waiting rooms in two provinces/territories representing urban (Alberta) and remote (Northwest Territories) health regions. A 5 point Likert scale usability survey containing 8 questions that assessed the user experience of each tool (usability, aesthetics, language, level of engagement, quality of information, length, format preference, value-added) was utilized. Descriptive statistics and bivariate tests were used to analyze the survey data.

## **Results:**

A knowledge synthesis of the literature was complete. 13 parents participated in semi-structured interviews in the qualitative descriptive study. Two themes central to parent experience were generated: 1) Parents fear the unknown: In general, parents described feeling comfortable managing their child's fever at home. However, if the fever was prolonged or occurred alongside other symptoms, parents experienced "panic" and increased anxiety. Parents expressed worry when previously successful techniques for managing fever were not successful. Most parents described the reasoning for seeking emergency care to be due to "out of the ordinary" circumstances. 2) Parents want more information: Parents expressed a desire for more information regarding their child's condition, particularly at discharge. Despite generally positive experiences in the ED, parents had many questions regarding the cause of their child's fever, how they could make their child comfortable at home, and what actions to take should their child's condition become worse. 58 parents participated in the usability evaluation. In general, participants gave favorable and similar scores for the fever video and interactive infographic with usability attribute means ranging from 3.93-4.48.

## **Conclusion:**

Our findings demonstrate that parents are highly supportive of innovative art and narrative based mediums for communicating complex health information. The model we have developed for patient engagement and the creation of innovative and relevant KT tools is highly successful and scalable to other conditions.



# Poster Presentations

*In alphabetical order, by last name of presenter*

## **The Canadian Community Utilization of Stroke Prevention study in atrial fibrillation in the Emergency Department (C-CUSP ED)**

Banner D, Parkash R, Magee K, McMullen M, Clory M, D'Astous M, Robichaud M, Andolfatto G, Read B, Wang S, Thabane L, Atzema C, Dorian P, Kaczorowski J, Nieuwlaet R, Ivers N, Huynh T, Curran J, Kandola D, Graham I, Connolly S, and Healey JS

### **Presenter:**

Dr. Davina Banner -- @DavinaBanner

### **Institution:**

University of Northern British Columbia

### **Background:**

Atrial fibrillation (AF) is the most common sustained arrhythmia. Oral anticoagulation (OAC) is known to reduce stroke risk by 60-80% in patients with AF patients, however, only 50% of eligible patients receive OAC. While many AF patients present to the ED, few are offered OAC. This represents a significant gap in AF care.

### **Methods:**

This is a multi-center, pragmatic, three-phase before-after study, in three Canadian provinces. Patients with documented non-valvular AF who presented to the ED and were discharged home were included. Phase 1 was a retrospective chart review to establish baseline practice; Phase 2 was a low-intensity knowledge translation intervention involving use of a simple OAC-prescription tool plus an educational package; Phase 3 incorporated the low-intensity knowledge translation intervention as per Phase 2, but added follow-up in a community AF clinic. Focus groups were undertaken with ED physicians during Phase one and following Phase three to examine barriers and facilitators to OAC prescription, these were examined using the Theoretical Domains Framework. Telephone follow up with patients was also undertaken to examine satisfaction with the education intervention.

### **Results:**

A total of 632 patients were included from three provinces. The prescription of new OAC to eligible patients was 15.8% in Phase 1, as compared to 54% and 47% in Phases 2 and 3 respectively. Despite good uptake, many barriers to OAC prescription were identified by the physicians, including clinical culture and concerns about professional risk and safety. Patients identified mixed perspectives of the educational intervention provided and recognized the importance of informed decision making and ongoing follow up.

### **Conclusion:**

A simple OAC-prescription tool was associated with an increase in new OAC prescription in the ED for eligible patients with AF. The optimization of OAC uptake in the ED setting could lead to improved stroke prevention and patient outcomes, however, further initiatives to promote a safe prescribing culture and the effective delivery of patient education is needed for improved implementation.

# Patient and public engagement in integrated knowledge translation research: Are we there yet?

Banner D, Bains M, Carroll S, Kandola D, Rolfe D, Wong C, and Graham I

## **Presenter:**

Dr. Davina Banner -- @DavinaBanner

## **Institution:**

University of Northern British Columbia

## **Background:**

Despite growing emphasis upon evidence-based practice, gaps in the creation and timely utilization of responsive evidence in healthcare are pervasive and large variations in practice exist. In response to this, there has been an increasing recognition of the need for more engaged approaches to health research and knowledge translation. Across the world, this has led to the emergence of collaborative modes of research that engage a wide variety of knowledge users, including healthcare providers and decision-makers. This approach to research is commonly referred to as integrated knowledge translation (IKT) and has been widely adopted within Canada and internationally. In concert with the adoption of IKT approaches is the requirement of researchers to meaningfully engage patients and members of the public in research. Both approaches are hailed as key ways to improve the relevance, impact and efficiency of research.

## **Methods:**

In this presentation, we will discuss the conceptual, theoretical and practical linkages between IKT and patient engagement in research, critically examine the evidence base underpinning these approaches, and identify areas for future research.

## **Results:**

While both IKT and patient engagement approaches are linked by virtue of their engagement focus, the approaches have distinct but complementary conceptual and theoretical roots. Likewise, practical differences in the nature, scope and focus of partnerships exist. Here, we begin to identify how these dominant approaches are linked and where conceptual difference and tensions exist. We will present potential avenues to foster meaningful patient engagement within the context of IKT research and the knowledge to action cycles, and finally, we will present recommendations for future research.

## **Conclusion:**

In this presentation, we will examine the conceptual, theoretical and practical linkages of IKT and patient engagement in research. Delving into these complementary and overlapping processes responds to a current gap in knowledge and may inform targeted research that fuels the advancement of both IKT and patient engagement science.

# Affecting change in the midst of a crisis – piloting opioid use and prescription knowledge translation project in Edmonton, Alberta

Baxi M, Amin A, Nair B, Varga B, and Wigfull L

## **Presenter:**

Dr. Maulik Baxi -- @maulikbaxi

## **Institutions:**

University of Alberta and Alberta Health Services

## **Background:**

Opioid use related morbidity and mortality has evolved into a major cause of disease burden over the past few years. Opioid use related deaths can be prevented by appropriate treatment of the disease, and if overdose occurs, by timely administration of naloxone. Canada's opioid crisis response has included access to naloxone kits. Furthermore, it is recognized that approximately 8-10% of physicians have addictions. The University of AB (UofA), the Alberta Medical Association (AMA), and the College of Physicians and Surgeons of Alberta have all been striving to increase awareness of the assistance and support for resident physicians in identification of symptoms and management of self and of others.

## **Methods:**

Our knowledge translation (KT) project, implemented under the guidance of the Resident Well-being Committee (RWBC) at Post Graduate Medical Education (PGME) office at the UofA, and the Mental Health Commission of Canada (MHCC) followed the Innovation to Implementation (I2I) model. We identified focused introduction of risks of inappropriate opioid use and opioid prescribing to the incoming resident physicians at University of Alberta. A group of Residents and a Faculty Member from the RWBC, in collaboration with the AMA, developed two KT products: 1) a pamphlet; 2) a set of "Doctors Against Tragedies" (DAT) cards. We simultaneously distributed naloxone kits with training also at the event. We also followed an implicit plan with specific actions to be completed, agents of change for those actions and identified a plan with timeline, deliverable, approximate budget and success criteria.

## **Results:**

At the 2018 UofA PGME new resident orientation, the KT products, naloxone kit and training were delivered to incoming residents to approximately 140 medical and surgical specialty and sub-specialty resident physicians and fellows. This innovation was successful and received positive feedback. We conducted a brief qualitative evaluation of KT products, process and people. The product evaluation identified need for minor improvement in design and format without any significant need for change in content. The process evaluation identified successful use of technology tools facilitated product development and launch within time constraints. The people component of the evaluation identified importance of open and ongoing communication that helped build partnerships, garner support from various, otherwise unrelated organizations, and eventually, successful KT product delivery.

## **Conclusions:**

Our goal is to continue offering this innovation at new resident orientation and expand (e.g., to Residency Program Academic Half Days etc.) where possible. By sharing our experience at KT Canada meeting, we hope to obtain feedback from experts in the field as well as suggestions for further improvement and expansion on our initiative.

# Measures assessing attributes of Evidence-Informed Decision-Making (EIDM) competence among nurses: a psychometric systematic review

Belita E, Yost J, Squires JE, Ganann R, Burnett T, and Dobbins M

## **Presenter:**

Emily Belita

## **Institution:**

McMaster University

## **Background:**

The current state of evidence regarding measures that assess evidence-informed decision-making (EIDM) competence attributes (i.e., knowledge, skills, beliefs/values, behaviours) among nurses is unknown. This systematic review provides a narrative synthesis of the psychometric properties and general characteristics of EIDM competence attribute measures in nursing.

## **Methods:**

The search strategy included online databases, hand searches, grey literature, and content experts. To align with the Cochrane Handbook of Systematic Reviews, psychometric outcome data (i.e., acceptability, reliability, validity) were extracted in duplicate, while all remaining data (i.e., study and measure characteristics) were extracted by one team member and checked by a second member for accuracy. Acceptability data was defined as measure completion time and overall rate of missing data. The Standards for Educational and Psychological Testing was used as the guiding framework to define reliability, as well as validity evidence, identified as a unified concept comprised of four validity sources: content, response process, internal structure and relationships to other variables. A narrative synthesis of measure and study characteristics, and psychometric outcomes is presented across measures and settings.

## **Results:**

A total of 5,883 citations were screened with 103 studies and 35 unique measures included in the review. Measures were used or tested most often in acute care (n=31 measures) followed by primary care (n=9 measures). Measures were used less often in public health (n=4 measures), home health (n=4 measures), and long-term care (n=1 measure). Over half of the measures assessed a single competence attribute (n=19; 54.3%). Only three measures (9%) assessed all four competence attributes of knowledge, skills, attitudes/beliefs and behaviours. Regarding acceptability, overall missing data ranged from 1.6%-25.6% across 11 measures and completion times ranged from 5-25 minutes (n=4 measures). Internal consistency reliability was most commonly reported (21 measures), with Cronbach's alphas ranging from 0.45-0.98. Only two measures reported four sources of validity evidence, while more than half (n=19; 54%) reported one source of validity evidence.

## **Conclusions:**

This review highlights a gap in the testing and use of competence attribute measures related to evidence-informed decision making in community-based and long-term care settings. Further development of the measures are needed conceptually and psychometrically, as most measures assess only a single competence attribute, and lack assessment and evidence of reliability and sources of established validity evidence.

## **Pitfalls of scaling up health interventions: A qualitative study followed by a rapid literature review**

Zomahoun HTV, Ben Charif A, Freitas A, Garvelink MM, Menear M, Dugas M, Adekpedjou R, and Légaré F

### **Presenter:**

Dr. Hervé Tchala Vignon Zomahoun -- @HZomahoun

### **Institutions:**

The Québec SPOR-SUPPORT Unit and Université Laval

### **Background:**

Policy makers increasingly express the need to scale up successful and promising interventions across the health care system so that more of the population can benefit from them. Unfortunately, there is still a gap between development of health interventions as research projects and their widespread implementation as standard care. There is thus a need to better understand and overcome barriers to scaling up health interventions. In this study, we sought to identify and review the pitfalls of scaling up health interventions.

### **Methods:**

We performed a qualitative study followed by a rapid literature review using a 3-phase approach: an interactive workshop (Phase 1), a rapid review (Phase 2) and a data synthesis (Phase 3). Phase 1: We invited members of the Population Health and Practice-Changing Research Group (Université Laval) to an interactive 3-hour workshop to identify the pitfalls of scaling up health interventions. This multidisciplinary group included various stakeholders working in implementation science (policy/decision makers, clinicians, patients, researchers, trainees). The workshop started with an introduction to the main concepts, followed by separate small-group discussions, and lastly a plenary session discussion. Phase 2: We performed a rapid literature review with the following inclusion criteria: 1) study design: any systematic review on an identified pitfall or any original study if a systematic review was unavailable; 2) participants: no restriction; 3) intervention: any approach used to scale up a health intervention; 3) comparator: no restrictions; and 4) outcomes: any pitfall identified in the workshop. We searched PubMed from database inception to September 2016 and consulted gray literature using Google Scholar and World Health Organization website. Study selection and data extraction were performed by an author with experience in systematic review methodology. Phase 3: The same author synthesized data from the workshop and the rapid review, and another author checked and validated this synthesis. We described characteristics of workshop participants, and narratively reported and discussed the identified pitfalls with rapid review results.

### **Results:**

Twenty stakeholders participated in the interactive workshop. Overall, the workshop generated discussion on six major pitfalls of scaling up health interventions that the rapid review found were documented in the literature. First, the cost-effectiveness estimation pitfall: accurate cost-effectiveness estimates about real-world implementation are almost impossible, making predictions of economies of scale unreliable. Second, the health inequities pitfall: some people will necessarily be left out and therefore not benefit from the scaled-up health interventions. Third, the health inequities pitfall: the harms as well as the benefits may be amplified by the scaling up. Fourth, the scaled-up harm pitfall: informed consent may be a challenge on a grander scale. Fifth, the top-down pitfall: the needs, preferences and culture of end-users may be forgotten when scale-up is directed from above. Sixth, the contextual pitfall: it may not be possible to adapt the health intervention to every context.

### **Conclusions:**

Scaling up can be a powerful process for reducing evidence-practice gaps and spreading the benefits of health interventions, but there are significant pitfalls related to cost-effectiveness, health inequities, ethical standards, amplification of potential harms, top-down implementation, and contextual appropriateness. Investigators need to develop rigorous methods for addressing these pitfalls if the science of scaling up is to make real progress.

# Using an integrated knowledge translation approach to guideline development: A strategy for engaging patients in the development of a clinical practice guideline on screening in primary care

Burnett L, Einarson K, Moore A, Lang E, Morissette K, Rashid S, Mascarenhas Johnson A, Scoleri R, Stein S, and Straus SE

## **Presenter:**

Lynsey Burnett -- @cantaskforce, @kt\_program

## **Institution:**

St. Michael's Hospital

## **Background:**

Patient and public involvement during the development of clinical practice guidelines can yield recommendations that are more likely to be patient-centered, practical, and provide opportunities for shared decision-making (SDM). The Canadian Task Force on Preventive Health Care (Task Force) uses an integrated knowledge translation (iKT) approach to engaging knowledge users by eliciting patients' values and preferences at three stages in the guideline development process. Specifically, we ask patients how important they consider various potential outcomes of screening when making decisions about whether to undergo screening. We also ask what types of information about screening patients would want to discuss in SDM conversations with their primary care provider. The findings are used to derive patient-important outcomes that are incorporated into the evidence review that informs guideline development and are considered in the final guideline recommendations.

## **Methods:**

In 2018, the Task Force investigated patients' values and preferences around screening for depression among adults prior to beginning the evidence review on this topic. We recruited English-speaking Canadians aged 18 years or older, either with or without a history of depression. We used a modified RAND Appropriateness Method (RAM) for data collection. Participants received a plain-language background information sheet about depression screening, diagnosis, and treatment, along with a list of potential outcomes of screening that could be considered when making depression screening decisions. In a pre-survey, patients rated the importance of each outcome using the Grading Recommendations Assessment, Development and Evaluation (GRADE) 9-point scale (not important (1-3), important (4-6), or critical (7-9)). Subsequently, participants discussed screening outcomes and preferences in an hour-long focus group or interview via teleconference. Sessions were conducted with a facilitator and a content expert present. Finally, patients rated the same outcomes in a post-survey. We used descriptive statistics to analyze survey data and present results to participants for discussion. Thematic analysis was used to explore the data from focus groups and interviews.

## **Results:**

We collected data from 16 Canadians, aged 22 to 63 years, seven of whom had previously been diagnosed with depression. Participants' median post-survey ratings of the importance of potential benefits of depression screening ranged from 7 (critical) to 8.5 (critical). Median post-survey ratings of potential harms of depression screening ranged from 6 (important) to 7 (critical). Participants identified several topics as important for SDM conversations with healthcare providers. Topics included the potential harms of living with untreated depression, how depression may impact friends and family, the range of treatment options available for those diagnosed with depression, and treatment accessibility.

## **Conclusions:**

Participants rated all identified outcomes of screening for depression as important or critical, and may therefore be more responsive to a guideline based on evidence pertaining to these outcomes. These outcomes will be incorporated in the evidence review process for this guideline. Respondents also identified additional outcomes of interest, such as the impact of depression on loved ones. Results will also inform the development of KT tools to address the information needs of participants and effectively support a SDM discussion of patients' preferences.



# The development and usability evaluation of an interactive infographic as a knowledge translation tool for pediatric acute otitis media

Campbell A, Le A, Plesuk T, Hartling L, and Scott S

## **Presenter:**

Alyson Campbell

## **Institution:**

University of Alberta

## **Background:**

Acute otitis media (AOM), defined as an infection of the middle ear, is the most common bacterial ear infection affecting up to 80% of children before the age of three. Despite the common occurrence of the illness and the wide range of material available at clinics and online, parents are not always aware of these resources. Furthermore, these resources do not appear to have any impact on service use when children are acutely sick, suggesting that more effective information sources are required.

## **Methods:**

An interactive infographic was developed based on a systematic review and a qualitative study on parent experiences and information needs relating to pediatric AOM. Once developed, our prototype infographic was shared for feedback with health experts and parents/families through the Translating Emergency Knowledge for Kids (TREKK) knowledge mobilization network and our team's parent advisory group. Usability testing was conducted in the emergency departments in urban (Saskatoon Royal University Hospital) and remote (Leduc Community Hospital) sites. Parents' perceptions of the tool were assessed using 9 questions for 5 evaluation elements on a 5 point Likert scale (5 being strongly agree and 1 being strongly disagree): 1) usability, 2) aesthetics, 3) length, 4) relevance and 5) future use. Descriptive statistics and measures of central tendency were completed for analysis.

## **Results:**

30 parents were approached to participate in usability evaluation. Overall, all parents gave favorable scores on all 9 survey items. All parents strongly agreed or agreed when asked whether the tool could be used without written instructions or help ( $M=4.47$ ). Parents gave high scores when asked if the tool was relevant, simple to use, length is appropriate, is aesthetically pleasing, will help me make decisions about my child's health and whether they would recommend this tool, yielding means of 4.37, 4.63, 4.37, 4.37, 4.40 and 4.40, respectively. "It is useful" and "I would use it in the future" scored relatively lower with means of 4.30 and 4.33.

## **Conclusion:**

Our results suggest that interactive infographics are useful knowledge translation tools for parents and caregivers. We will continue to work alongside parents and health care professionals to create age appropriate and culturally diverse interactive infographics to provide innovative consumer-oriented interventions to enhance knowledge sharing to parents and caregivers.

## Supporting implementation of an electronic health record in long term care by developing a pre-implementation survey

Campbell M, Warnock-Matheron A, Klassen C, and Johnson M

### **Presenter:**

Marcella Campbell -- @MCellaCampbell

### **Institution:**

Bethany Care Society

### **Background:**

Several benefits are attributed to transitioning to an electronic health record (EHR). To realize the benefits, a long term care organization sought to use an implementation approach that would help ensure the uptake of new EHR elements. Once the electronic versions of documentation were created and piloted at one of the organization's sites the next step was replicating the implementation at other sites within the organization. We drew upon the Consolidated Framework for Implementation Research (CFIR) because it considers constructs related to the intervention, settings, individuals, and process.

### **Methods:**

To spread the EHR implementation, the pilot was viewed from the perspective of CFIR because there were some elements that we recognized as being specific to the site and some that vary depending upon site culture, structure, positions, and communication. With this in mind we designed a pre-implementation survey to use at each site that would help identify variations with the pilot and thus help to inform an implementation approach. We then reviewed the implementation by drawing upon Proctor's implementation taxonomy for monitoring outcomes, which included chart audits and staff interviews on adoption, fidelity, penetration and sustainability.

### **Results:**

The results include a summary of the content of the pre-implementation survey and a review of its effectiveness. The pre-implementation survey was guided by CFIR and the successful implementation at the pilot site. The structure of the survey included areas on communication, positions, and culture to identify variation. The content of the survey was focused on areas most impacted by the EHR; this included: transitions of care; healthcare conferences; information reconciliation; legal documents; chart management; staff readiness; educational needs; external stakeholders; and equipment requirements. The post implementation monitoring looked at various indicators for a successful implementation. The chart audits revealed that staff were using the newly created EHR elements, thus showing adoption. The audit also revealed whether the new elements of the EHR were being completed as intended; for the most part they were with the exception of timelines and workflow across a few staff members, showing a minor gap in fidelity. Communication and education to a small number of staff improved fidelity. From interviews, we identified that new staff who had not received the initial education or initial communication showed weaker fidelity in their work. As a result, the survey was augmented to include these areas. This approach, as we moved site by site, allowed us to provide remedial feedback and to revise the pre-implementation survey.

### **Conclusions:**

Drawing upon the CFIR to plan implementation of EHR elements within an organization helped facilitate the transition. Support for using the framework comes from post-implementation monitoring. The monitoring indicated that including a pre-implementation survey before implementing an initiative can support adoption, fidelity, and penetration. In time we also hope that it will show support for sustainability.



# The KT pathways: An iKT approach to creating a tool for assessment and learning

Creighton G, and Scarrow G

## **Presenter:**

Dr. Genevieve Creighton

## **Institution:**

Michael Smith Foundation for Health Research

## **Background:**

To practice KT effectively, it is essential for researchers, knowledge users and knowledge brokers to develop specific KT competencies. To date, easily accessible tools to assess and grow those competencies over time have not been available. To address this issue, the Michael Smith Foundation for Health Research (MSFHR) initiated an integrated KT (iKT) process to create a web-based, user friendly self-assessment tool to facilitate KT learning and development.

## **Methods:**

The project builds on previous work in which MSFHR engaged a working group made up of university based researchers, a university librarian and KT specialists to identify KT competencies. The working group completed a scoping review to determine “What are the core KT competencies of knowledge users, knowledge brokers and knowledge producers in the health sector and what are the interventions and strategies to reinforce those competencies?” The scoping review summarized existing knowledge on KT competencies derived from 17 peer-reviewed publications and 63 grey literature items. Further analysis of the data elucidated 221 separate KT competencies which were subsequently organized into KT pathways for three different target audiences (research producers, knowledge users, knowledge brokers) and three levels of expertise (developmental, intermediate, expert). The KT pathways document was sent to KT experts across the country for validation and comments; suggestions were incorporated into the document. For the current project, our objective was to configure the KT pathways into an accessible, user-friendly, web-based tool that would help users assess their current KT competency level and provide a framework for building on their KT competencies over time. Using an iKT approach, MSFHR partnered on the tool’s development with BC-based research institutes, health authorities, and universities representing all regions and many potential user groups across the province. Co-development of the KT Pathways tool included engaging 65 content testers on the further validation of language used to describe the KT competencies, and the user experience of the tool.

## **Results:**

The KT Pathways digital tool allows users to quickly and easily assess their KT competencies from their perspective as a researcher, knowledge broker or knowledge user. Once the tool’s user has completed a quiz, the tool will advise them on their own priority areas for KT learning and growth and automatically provide a selection of appropriately leveled learning resources. The tool facilitates deeper learning about KT competencies and provides support for professional development. Tool users can take the quiz multiple times in order to track their growth in KT competency over time.

## **Conclusions:**

Our learnings from the process of developing the KT Pathways highlight the importance of using an iKT approach. While broad participation in the development of the tool extended the development timeline, it resulted in a KT learning tool that will be more relevant and useful to a diverse population of potential users.

## **A knowledge translation theory, model or framework for health technology reassessment: Does one exist?**

Esmail R, Hanson H, Holroyd-Leduc J, Niven DJ, and Clement FM

### **Presenter:**

Rosmin Esmail

### **Institution:**

University of Calgary

### **Background:**

Decisions on how to discontinue, de-adopt or de-implement ineffective and unproven clinical practices are challenging and complex. Health Technology Reassessment (HTR) is a structured, evidence-based assessment of the clinical, social, ethical, and economic effects of a technology currently used in the healthcare system, to inform optimal use of an existing technology in comparison to its alternatives. For an individual technology, the HTR process may suggest modification (increase use, decrease use, or removal) or no modification to use of an existing technology. Knowledge Translation (KT) can be applied to implement findings from the HTR process. However, it is unclear which KT theory, model or framework would be best suited for the HTR process. The objective of this study is to review KT theories, models and frameworks to identify which one(s) may be most appropriate to implement HTR outputs.

### **Methods:**

Full-spectrum KT theories, models and frameworks were identified using systematic review methodology (February 2018). A full-spectrum KT theory, model or framework is one that has been used in the literature by study authors to inform their KT work and guide all four KT phases: i) planning/design, ii) implementation, iii) evaluation, and iv) sustainability/scalability. Local experts with HTR/KT backgrounds participated in three rounds of a modified Delphi process (August to September 2018). In the first and second rounds, these experts independently determined which KT theories, models, and frameworks identified from the systematic review could be used for HTR. Each was rated based on its potential suitability for HTR as 'yes' or 'no'. In the third round, a face-to-face meeting was held (October 2018). Principles/criteria were determined a priori and applied. Through dialogue and discussion, it was determined which should be included in the final recommended list. Subsequently, the resultant list of KT theories, models, and frameworks was reviewed and validated by international HTR and KT experts through a three-round modified Delphi process. Twenty-two experts were selected through purposeful sampling from Canada, US, UK, Germany, Spain, Italy, and Australia. The first round entailed a survey sent via email. Experts applied the following criteria: familiarity, logical consistency/plausibility, degree of specificity, accessibility, ease of use, and provided their feedback on the suitability of the KT theory, model or framework for HTR. The second round is underway.

### **Results:**

The systematic review identified 36 full-spectrum KT theories, models and frameworks. Local experts selected 16 that may be suitable for HTR. The 22 international HTR and KT experts have completed round one and preliminary analysis is underway and will be ready to present in May 2019

### **Conclusions:**

To our knowledge a systematic review and validation by experts of a KT theory, model, or framework for the HTR context does not exist. This study will shed light into which KT theories, models and frameworks may best facilitate the implementation of results of the HTR process.

# Quality of reporting of scaling up strategies for evidence-based practices

Gogovor A, Zomahoun HTV, Ben Charif A, Sawadogo J, Moher D, and Légaré F

## **Presenter:**

Dr. Amédée Gogovor -- @AgogovN, @UniteSoutien

## **Institutions:**

Centre de recherche sur les soins et les services de première ligne and Quebec SPOR-Support Unit

## **Background:**

Findings from studies assessing scaling-up strategies need to be reported adequately to facilitate their use in scaling up trials of shared decision making. We sought to examine the reporting quality of studies included in a review of scaling-up strategies.

## **Methods:**

We conducted a secondary analysis of a recently published systematic review of scaling-up strategies for evidence-based practices (EBPs) in primary care. Sources of data consisted of all studies included in the review. We extracted characteristics of studies (e.g. publication year, country of origin). Three guidelines informed our data extraction. We compiled a list of key elements of implementation and scaling up under seven headings: title, abstract, introduction (background, aim), methods (18 elements such as theoretical framework, core components and assessment of scaling up potential of the EBP), results (8 elements such as effectiveness of EBP, quantitative metrics of scaling up success, cost, fidelity, sustainability), discussion (4 elements such as implications) and other information (funding source and conflict of interest). The list of 37 elements was refined through discussion by the members of the research team and each element defined. Two reviewers independently evaluated the studies included in the review against each element as follows: reported, not reported, unclear. We performed a descriptive analysis (number and percentage) of key elements assessed.

## **Results:**

A total of 14 studies were included. They were published between 2003 and 2016 in ten different countries. The implementation and scaling up elements the least reported were found under the following headings: methods and results. In the methods, none of the studies identified the core components of EBPs versus their modifiable components, nor the assessment of scaling up potential of the EBPs; and only one study used a theoretical framework. The least reported elements for results included fidelity (1/14), sustainability (1/14), quantitative metrics on the success of the scaling up intervention (2/14), cost (2/14), and effectiveness of EBP i.e. effect size and its confidence intervals (2/14).

## **Conclusion:**

Our results will inform the development of a reporting guideline for studies assessing the impact of scaling-up strategies and help the future scaling up of shared decision making in health care.

# The development and formative evaluation of a clinical practice implementation toolkit for health care providers

Guy SD, Wolfe D, Kras-Dupuis A, Hsieh J, Loh E, and Walton DM

## **Presenter:**

Stacey D. Guy -- @sguy2016

## **Institutions:**

Western University and Parkwood Institute

## **Background:**

Toolkits are a useful knowledge product to aid implementation of a clinical practice. We developed an organization-specific toolkit in response to an expressed need from health care providers within that organization for implementation support.

## **Methods:**

An integrated knowledge translation approach guided by resources from the Agency for Healthcare Research and Quality and the United States Agency for International Development, and the Knowledge Exchange Framework informed the iterative development and formative evaluation of the toolkit. Over 12-months, a team of knowledge users and researchers from a rehabilitation program co-created a toolkit tailored to health care providers. The intended target of the toolkit is healthcare providers across programs in the organization. Knowledge users were identified by researchers from previous participation in implementation activities, and referred by colleagues. Knowledge users (clinicians and leadership) participated in interviews (n = 4) and a survey (n = 18) to assess the usability of the toolkit. The toolkit content is informed by the Active Implementation Framework, and tools were identified by users with implementation experience.

## **Results:**

Knowledge users identified the need for a practical, simplified stepped process with accessible language. The toolkit includes a two-phased process for implementing practice: planning and executing. The planning phase focuses on identifying stakeholders, what the core components of the practice or program are, and the implementation strategies. The executing phase involves delivering, evaluating, and planning for sustainability of the practice or program. Tools for achieving these activities are linked in the digital document. The preface contains information on how the toolkit was developed, who developed it, and how to use it. The toolkit is designed to be used by a core team of implementers. The toolkit was made available May 2018.

## **Conclusions:**

Using an interactive process of knowledge exchange a team of knowledge users co-created a toolkit to guide rehabilitation healthcare providers in implementation activities. Although developed for a specific organization, this toolkit can be tailored to other contexts. The toolkit contains a phased approach to implementation with 6 core activities and accompanying tools. The toolkit will be trialed for effectiveness with a rehabilitation team undergoing an implementation initiative.

# Development of a conceptual evaluation framework for patient, family, caregiver, and public engagement in a provincial health-care system: A scoping review protocol

Hamilton C, Holms S, Snow ME, Clark N, Koster A, McLean J, and Li L

## **Presenter:**

Dr. Clayon Hamilton -- @Dr\_Clayon

## **Institutions:**

University of British Columbia and Arthritis Research Canada

## **Background:**

Most health sector partners agree it is important to harness the patients' voice for good quality health care. The British Columbia (BC) Ministry of Health runs the Patient as Partners Initiative to build capacity for, and strengthen the engagement of, patients, families, informal caregivers, and the public in decision-making in the healthcare system as an enabler for advancing person- and family-centered health care. While this type of initiative is considered key to healthcare improvement and sustainability, little evidence exists on their effectiveness. A major barrier to developing this evidence base is a lack of consensus on how to define success. The BC Ministry of Health has partnered with researchers and patient/family partners to evaluate the impact of the Patient as Partners Initiative. As a first step to the evaluation, this scoping review aims to identify the key element of, and develop a comprehensive conceptual evaluation framework for, patient, family, informal caregiver, and public engagement in decision-making in healthcare systems.

## **Methods:**

This scoping review follows Arskey and O'Malley's methodology enhanced by Levac et al (2010) and the standards of PRISMA-ScR. 1) The research question was identified through team discussions. 2) Articles for data source will be identified using a librarian-informed search strategy for seven bibliographic databases (CINAHL, Cochrane Library, EMBASE, MEDLINE, PsycINFO, Social Work Abstracts and Web of Science), the reference and citation lists of selected articles, as well as grey literature sources. 3) Articles selected will be relevant to the evaluation of patient, family, caregiver, and public engagement in healthcare systems. 4) Two researchers will independently extract data from each article into predefined and emerging categories. Predefined categories will be informed by the Donabedian framework and the BC Ministry of Health's framework for patient and family engagement. 5) The researchers will reconcile and organize the identified elements into themes. The collective perspective of the research team will then refine the themes, and select, interpret, and summarise the results as an emergent conceptual evaluation framework. 6) Persons from key stakeholder groups (health system leaders and decisions makers, managers and staff, providers, and users) will be consulted to refine the emergent conceptual evaluation framework. While the synthesis of the literature does not require research ethics approval, it will be sought for the stakeholder consultation.

## **Results:**

We expect the elements of patient, family, informal caregiver, and public engagement to be identified in the literature on frameworks, guidelines, measurement constructs, models, policies, principles, recommendations, and standards of engagement. Because this is an emerging and evolving area of research and practice, stakeholder consultation will help to refine, contextualize, and validate the framework for implementation in BC.

## **Conclusions:**

The resulting conceptual evaluation framework will provide key themes to guide the identification of indicators and measures of patient, family, informal caregiver, and public engagement in decision-making in the healthcare system of BC. We will seek to disseminate the findings through conference presentations, a scientific article, a research brief, and relevant workshops.

# From 'bridging the gap' to 'closing the loop': Examining the Alberta Cancer Prevention Legacy Fund's approach to research as an integrated KT (iKT) organization

Highet M, Allen Scott L, Meckelborg L, Gougeon L, and Teare G

## **Presenter:**

Dr. Megan Highet

## **Institution:**

The Alberta Cancer Prevention Legacy Fund, Alberta Health Services

## **Background:**

Since the term 'Knowledge Translation' (KT) was coined in 2000, considerable attention has focused on the need to 'bridge and/or narrow the gap' between the production of new knowledge within academic institutions and its subsequent implementation in health policy and service settings. Today, the majority of academic researchers are familiar with 'end-of-grant' approaches to KT, which aim to target dissemination activities to audiences who may be interested in applying outcomes within their field. By promoting better alignment between scholarly research and evidence-informed decision making, this approach has narrowed, but not eliminated, the gap. With increased awareness of iKT approaches, many health researchers now seek to engage individuals, communities, and other knowledge users for co-development throughout the research process. This engagement has further narrowed the gap as research findings became more relevant and useful to those in a position to translate them into practice. Nevertheless, this approach to KT remains an open-ended system that relies mostly on the end-users.

## **Methods:**

For more than a decade, the Alberta Cancer Prevention Legacy Fund (ACPLF), has grown as an iKT organization mandated to support and encourage innovative cancer prevention initiatives from its position embedded within Alberta's health system. Working in tandem with Evaluators, our Scientist - Integration Lead dyads collaborate with knowledge users to develop and test innovative, real-world cancer prevention initiatives within a variety of implementation settings. To understand the nature of the relationship between our research and evaluation teams from both theoretical and practical perspectives, we have drawn on bodies of knowledge in the areas of systems thinking, quality improvement, learning organizations, social labs, realist analysis, utilization-focused evaluation, and theories of knowledge creation. We have also carried out facilitated discussions with members of our leadership, research, and evaluation teams to gain an understanding of how these concepts are evident in the ways in which we work within ACPLF, from a range of perspectives.

## **Results:**

Within ACPLF, we have developed an iKT approach that is driven by three lines of inquiry, effectively integrating research, implementation, and evaluation to form a continuous learning loop. By 'closing the loop' on iKT, we strive to capture experiential knowledge about practice implications for continuous improvement, measure project outcomes to assess the impact of innovation, document and respond to unintended harms if they emerge, and capture learnings in order to function as a learning health organization.

## **Conclusions:**

This case-study reflects on our collective successes, challenges, and the opportunities that our approach to iKT may offer to broader health, research, and implementation science communities. We recognize that some qualities of the settings in which we work are inherent enablers of the way that we are able to work together. Yet, we also believe that an analysis of the model that drives our approach to research, evaluation, and implementation may nevertheless be useful to other groups who may be able to adopt, adapt, or even improve upon our approach to iKT.

## Social prescribing; developing a nuanced evidence base in collaboration with clinical practice

Husk K

### **Presenter:**

Dr. Kerry Husk -- @kerryhusk

### **Institutions:**

PenCLAHRC, University of Plymouth

### **Background:**

The use of non-medical referral, community referral or social prescribing (SP) interventions has been proposed as a cost-effective alternative to help those with long-term conditions manage their illness and improve health and well-being. However, the evidence base for social prescribing currently lags considerably behind practice. There is a need to ensure that we're integrating implementation with research in order to maximise the potential benefit, ensure its appropriate use, and to avoid wasting resources.

The challenge of integrating evidence alongside policy in social prescribing is important as the linked exercise referral schemes (ERS) were considered all but a panacea a decade ago, and the political will that amassed in support of them meant these programmes proliferated across the UK before robust assessments of their effectiveness had caught up. What is needed is practice based evidence effectively communicated and by disseminating lessons collaboratively we will be able to support continual quality improvement, which encourages individualised care, and ensure that policy makers and health systems direct resources to social prescribing programmes that are effective.

### **Methods:**

Examination of social prescription services using realist review methods to locate, assess and develop theory using a broad range of evidence. Assessed in clinical practice context with focus groups and an assessment of service data.

### **Results:**

Programme theory which was refined through iterative collaboration with our case site and expert group, leading to targeted searches being conducted for six key elements and practice being refined and assessed using focus groups in the site.

### **Conclusions:**

We were able to develop theory relating to the social prescribing process through realist review and evidence synthesis which was iteratively refined and implemented in a case site currently at the early stages of SP delivery. Working alongside current practice whilst undertaking theory development informed review findings and methods.

### **Main messages:**

To harness the great work now being undertaken in community and primary care settings up and down the UK, there is a need to understand what works in social prescribing, for whom, and in what circumstances. To do so requires developing a robust evidence base alongside collaboration with clinical practice to develop theoretically informed best practice guidance.



# **CHOICES: Using an integrated KT approach to co-create patient education tools for lipid management in Ontario**

Januwalla A, Baddeliyanage R, Rashid S, Rup J, Ferreira-Legere L, Udell J, and Straus S

## **Presenter:**

Alia Januwalla -- @CANHEART\_News, @kt\_program

## **Institutions:**

St. Michael's Hospital, Institute for Clinical Evaluative Sciences

## **Background:**

The objective of the CHOICES (Community Heart Outcomes Improvement and Cholesterol Education Study) pragmatic trial is to use implementation science to improve the uptake of lipid management activities in health regions in Ontario with higher than average cardiovascular risk. An integrated knowledge translation (IKT) approach was utilized to engage with Ontario residents to understand their needs as it relates to lipid management decision-making, and inform the content and delivery of a patient-targeted educational tool for lipid management to reduce cardiovascular risk.

## **Methods:**

Ontario residents aged 40-75 were recruited through the Knowledge Translation (KT) program's internal listserv and from the Heart and Stroke Foundation of Canada's (HSFC) contact lists. An online survey was administered to participants to prioritize outcome indicators relevant to lipid management. Using the GRADE (Grading Recommendations for Assessment, Development and Evaluation) 9-point scale, participants were asked to independently rate a list of cardiovascular outcome indicators based on their perceived importance. After an opportunity to discuss these survey results in a focus group, participants were asked to complete a second survey to re-rate the outcomes. The results of this activity were used to inform the content of a patient-targeted lipid management educational tool, which underwent usability testing with additional participants through individual telephone interviews. Participants were asked to review the tool and engage in a "think-aloud" session, to verbalize all comments related to the tool's content, layout, aesthetics and usability. This tool additionally underwent rounds of review with an advisory Patient Partner Panel. The Public and Patient Engagement Evaluation Tool (PPEET) was sent to all participants upon completion of the study activities to assess their understanding of activities, ability to participate with ease, and perception of value as a participant.

## **Results:**

The selected participants represented a wide range of experiences with cardiovascular diseases, education, income status, ethnicity and age. A total of 13 participants completed the first prioritization survey; 11 of these individuals participated in focus group discussions about their rationale for prioritization, and completed the second survey. This activity informed the CHOICES team's understanding of how participants prioritized their health decision-making (factors such as severity of outcomes and treatment, family history, and comprehensiveness of information sources) and their suggestions for lipid testing and receiving health information. These findings were used to develop the patient-targeted education tool. Usability testing was completed by 8 Ontario residents. Overall, participants liked the aesthetics, navigation, and content of the tool. A total of 17 participants completed the PPEET survey; the results indicate that all participants strongly agreed with statements that they had a meaningful impact on the strategic development of patient-targeted interventions, and felt engaged, heard, and valued in both the patient prioritization activities and the usability testing interviews.

## **Conclusions:**

The adoption of an IKT lens in the CHOICES trial aimed to engage the uptake of the intervention by engaging with Ontario residents through a multi-pronged approach to 1) co-create a tool that would address their stated concerns and empower health management, and 2) ultimately improve the uptake of the trial intervention.



## Patient and public engagement in a systematic review: A case study

Jeyaraman MM, Beaudry T, Hartwell M, Akbaraly Z, Shimmin C, and Abou-Setta AM

### Presenter:

Dr. Maya M. Jeyaraman

### Institutions:

George and Fay Yee Center for Healthcare Innovation/ Manitoba SPOR SUPPORT Unit and University of Manitoba

### Background:

Patient and public engagement (PPE) during the design and conduct of systematic reviews is a very important step as it offers patient partners an opportunity to maximize their involvement in the decision-making process. Even so, there is limited guidance on how to involve patients in systematic reviews.

Recently, we engaged 12 patient partners from multiple provinces across Canada during the design phase of a knowledge synthesis project on interventions to reduce emergency department overcrowding, to help refine our review question and identify key review outcomes. Patient partners also supported the grant application process as principal knowledge users. Our objective is to report on our experience with PPE during the conduct of our knowledge synthesis project before, during and after receiving funding from CIHR and other granting bodies.

### Methods:

We planned to engage patient partners at a “Collaborate level” in the following steps of the conduct of our review: (a) development of search strategy, (2) locating relevant grey literature, (3) interpretation of review findings within the context of their experience, and (4) dissemination of results. First, the principal investigator shared the search terms (used in the draft Medline search strategy) with patient partners along with a short explanation and a request for feedback. Secondly, after completion of the study selection process the principal investigator sent a list of all the included studies and requested their feedback and suggestions on any grey literature. In the days to come, we will conduct stakeholder meeting in March (2019) where 12 patient partners and other stakeholders will meet to discuss and interpret the study data and results. Finally, in May (2019) the patient partners will help in knowledge dissemination (plain language summary, Op-Eds, reports, etc.).

### Results:

We engaged a diverse group of three patient partners (self-identified as Indigenous, White & Immigrant) from three provinces across Canada (Manitoba, Alberta and Quebec). Two patient partners had previously contributed significantly during the design phase of the project and enthusiastically continued to collaborate with researchers during the conduct phase of the review. The SPOR SUPPORT units in all three provinces helped in the initial recruitment of patient partners. During the conduct of the review, patient partners helped in identification of additional relevant search terms (for example, “trauma care” and “Indigenous health care”) and suggestions to remove some terms, from the draft Medline search strategy. They also reviewed the list of included studies and provided suggestions on grey literature. We will discuss further contribution of the patient partners in the interpretation of study results (stakeholder meeting) and in the knowledge dissemination process, at the time of the poster presentation.

### Conclusions:

PPE during the design and conduct of the review helped us identify research priorities, refine our research question, identify patient-oriented outcomes, obtain valuable feedbacks on the search strategy, and identification of unpublished literature. We also hope that further PPE in the interpretation of the results and in the knowledge dissemination process will meaningfully contribute to our knowledge synthesis project and we look forward to sharing our experience.

# **Disseminating the foundations of knowledge translation science and practice: A quantitative descriptive evaluation of reach and engagement of the KnowledgeNudge blog and Twitter profile**

KM Sibley, M Khan, PL Roche, P Faucher, and C Leggett

## **Presenters:**

Masood Khan and Dr. Kathryn M. Sibley - @kmsibley, @TrishMcNish, @CLeggett\_KT, @pfauch, @KnowledgeNudge

## **Institutions:**

University of Manitoba and George & Fay Yee Centre for Healthcare Innovation

## **Background:**

There is a documented need to build capacity for theory- and evidence-informed knowledge translation (KT). Responding to requests for KT and patient engagement (PE) resources, the George & Fay Yee Centre for Healthcare Innovation launched the open-access KnowledgeNudge blog (a web-based collection of self-published content) and accompanying Twitter profile in 2016. Weekly blog posts summarized theoretical concepts, offered practice guidance and provided opinion on issues of debate. Promotional Tweets were published for each post. The objectives of this retrospective study were to (i) describe reach and engagement of the KnowledgeNudge blog and Twitter profile over a two-year period and (ii) compare posts with the most and least reach and engagement.

## **Methods:**

Data were analyzed for the period August 1, 2016 – September 30, 2018. Blog and Twitter metrics were downloaded from online data, and two reviewers independently coded post characteristics. Blog reach and engagement were assessed by number of site visitors and number of site views per month, respectively. Twitter reach and engagement were assessed by number of impressions and engagements, per Tweet per month, respectively. Descriptive statistics were calculated for the first and last six months of the analysis period. Individual post reach and engagement were assessed by average number of views per week and overall read ratio (percentage ratio of total post reads to total post views), respectively. The ten posts with the most and least reach and engagement were identified by ranking average views per week (reach) and read ratio (engagement).

## **Results:**

Within the study period, 102 posts and 807 Tweets were published. Posts were characterized as 59% KT, 28% PE, 5% both KT and PE, and 9% other. Half of the posts (50%) addressed practice issues, 31% addressed theoretical concepts, and 12% were opinion pieces. Average blog reach was 314 site visitors per month in the first six months and 1502 in the last six months. Average blog engagement was 823 site views per month in the first six months and 2305 in the last six months. Average Twitter reach was 563 impressions per Tweet per month in the first six months and 701 in the last six months. Average Twitter engagement was 11.9 engagements per Tweet per month in the first six months and 10.2 in the last six months. The ten posts with most and least reach had average views per week of 23 and 1.4, respectively. The ten posts with most and least engagement had read ratio of 65% and 20%, respectively.

## **Conclusion:**

Reach and engagement of the KnowledgeNudge blog increased over the study period. Twitter reach also increased, while engagement decreased in the last six months. While ongoing analysis will explore statistical significance of these findings, these results suggest some achievement of these two important components of dissemination. Data from posts with the most and least reach and engagement can inform decisions to tailor future content. Next steps will include the development of a prospective evaluation strategy to explore the effect of KnowledgeNudge on KT and PE knowledge, attitudes, and behavior.

# Developing a parent advisory group for a knowledge mobilization network in pediatric emergency medicine: A road map

Knisley L, Leggett C, Enns L, Hickes S, Roche P, Rybuck M, Smallwood D, and Klassen T

## **Presenter:**

Lisa Knisley -- @trekkca

## **Institutions:**

Children's Hospital Research Institute of Manitoba and George & Fay Yee Centre for Healthcare Innovation

## **Background:**

Most acutely ill and injured Canadian children are first seen in general emergency departments (EDs) that are not part of a children's hospital. Access to pediatric training in these settings can be a challenge and keeping up with the latest evidence is difficult. Families play a critical role in health decision-making and patient support for children and empowering them with evidence-based knowledge can impact the health system and the health of Canadian children. Translating Emergency Knowledge for Kids (TREKK) is a national knowledge mobilization initiative funded by the Government of Canada's Networks of Centres of Excellence. TREKK aims to improve how knowledge is shared between health professionals in general EDs, families seeking pediatric care there, and child health researchers and specialists within children's hospitals and universities. In 2013, TREKK created a Parent Advisory Group (PAG) to encourage meaningful engagement of parents and families and ensure their voices are represented throughout all levels of TREKK, from governance, to creation and dissemination of knowledge tools. The study objectives were to: (1) document the experiences and lessons learned in developing a PAG from the perspective of its members; (2) share these findings via a parent led publication; and (3) develop goals and next steps for the PAG. The long-term goal is to inform the development of future parent or public advisory groups where the involvement of these stakeholders is key to the initiative's success and relevance.

## **Methods:**

An integrated knowledge translation approach and qualitative inquiry were used. Current members of the PAG (n=4) spearheaded the inception of the study, co-developed the interview questions with the TREKK study team and self-identified as participants. Current and former PAG members (n=7) were invited to participate in a one-to-one, semi-structured interview to explore their experiences and perspectives of the development, evolution and relevance of TREKK's PAG. An external interviewer was hired to conduct the interviews. Interview data (n=4) was initially summarized into themes by an external reviewer. These themes were then further explored by the PAG to ensure accuracy.

## **Results:**

Five key themes were identified: 1) motivation to join and continue with the group; 2) experiences in the group; 3) barriers/issues to involvement; 4) effectiveness of the group; and 5) recommendations for future PAG activities. Preliminary findings emphasized the importance of clear role expectations, orientation for new members and ongoing training opportunities to better prepare and motivate members. Scheduling regular meetings and providing updates on progress between meetings were recommended to help the group stay connected. All participants highlighted the need for more diversity within the group as well as greater levels of engagement overall. .

## **Conclusion:**

These results offer insight into the experiences of TREKK's parent advisory group members. These findings will be shared via a parent led publication offering recommendations for those wanting to set up a new or evaluate an existing parent or public advisory group.

## **Stakeholder engagement to inform strategies for improving breastfeeding education in Manitoba schools: Preliminary results**

La M, Turner S, and Azad MB

### **Presenter:**

Sarah Turner

### **Institutions:**

Developmental Origins of Chronic Diseases in Children Network (DEVOTION) and Children's Hospital Research Institute of Manitoba

### **Background:**

Breastfeeding has many benefits for maternal and child health, yet over 75% of Canadian infants do not achieve the international recommendation of 6 months exclusive breastfeeding. Social stigma and lack of public support contribute to early breastfeeding cessation. Most breastfeeding information is targeted to pregnant women and new mothers, with few resources directed to society at large. Educating school children could help normalize breastfeeding by fostering the perception that breastfeeding is a normal way to feed infants. We engaged with educators and health care professionals (HCPs) to explore ways to integrate breastfeeding education in Manitoba schools.

### **Methodology:**

A scan of existing school curricula in Manitoba was conducted to determine if and how breastfeeding is currently discussed. Developers of existing breastfeeding education resources used outside of Manitoba were contacted to gather input about the development and uptake of these resources. Focus groups and online surveys were conducted to explore needs, perceptions and anticipated barriers related to school-based breastfeeding education. Educators were recruited at Manitoba Teachers Society Professional Development Day and via email circulation. HCPs were recruited through email by the Winnipeg Regional Health Authority.

### **Results:**

Breastfeeding is not specifically addressed in the current Manitoba school curriculum, although 'mammalian biology' is addressed in grade two and 'infant feeding' is addressed in grade ten Human Ecology. Breastfeeding resource toolkits for school teachers were identified in the Leicestershire, Ireland, and Scotland (UK), Alabama (USA), Indiana (USA) and Ontario (Canada). Developers of these resources reported a lack of uptake due to insufficient engagement with educators during the development process. 4 educators and 8 HCPs participated in separate focus groups, and 95 online surveys were completed. Educators spanned all grade levels and multiple subject areas; HCPs included nurses, doctors, dietitians, and midwives. Nearly all educators (97%) and HCPs (94%) supported the idea of teaching students about breastfeeding, most commonly for the purposes of normalizing and "de-sexualizing" breastfeeding and preparing students as future parents. Perceived barriers included lack of teaching time and resources, inadequate training or discomfort of educators, cultural and religious sensitivities, and concerns that students who were not breastfed may feel stigmatized. The few participants who were not supportive cited competing priorities in the curriculum and concerns about shaming mothers who do not breastfeed.

### **Conclusions:**

Engaging with educators and HCPs has provided critical information on how to effectively integrate breastfeeding in the school curriculum and how to gain support from key stakeholders. Next steps include forming a working group with local educators to co-develop and pilot test toolkits in classrooms, partner with local organizations (ex. Nuton, Roots of Empathy) that are currently engaged in schools to incorporate breastfeeding information in their programs. Ultimately, this initiative will help encourage societal support for breastfeeding, improve breastfeeding rates and enhance maternal-child health in Manitoba.

# Using physical activity wearables in self-management from the perspectives of persons living with arthritis: A qualitative evidence synthesis

Leese J, Geldman J, Zhu S, Macdonald GG, Pourrahmat M, Townsend A, Backman C, Nimmon L, and Li LC

## **Presenter:**

Jenny Leese -- @jen\_leese

## **Institution:**

University of British Columbia

## **Background:**

Although physical activity is a key component of arthritis self-management, physical activity levels typically fall below expert recommendations among persons with arthritis. Wearables could support persons with arthritis to be physically active; however, questions remain about how persons with arthritis view or experience the use of wearables in their daily lives. We aim to broaden understanding of the use of wearables to support physical activity from the perspectives of persons with arthritis.

## **Methods:**

An exhaustive search of 5 electronic databases (including Medline, CINAHL and Embase) from inception to Jan 2018 was carried out. We also performed hand-searching of reference lists of included studies. Title/abstract and full-text screening was conducted by 5 reviewers. Eligible studies qualitatively examined the use of wearables from the perspectives of persons with arthritis. They were appraised using the McMaster Critical Review Form. All relevant data were extracted from eligible articles and coded inductively with thematic analysis. We engaged with patient partners to identify the research question and inform interpretation of results.

## **Results:**

From a search yield of 4765 records, 87 were read in full and 7 papers from 6 studies met inclusion criteria. Studies were conducted in Canada, Australia, UK and Ireland. Sample included 114 persons with arthritis (93 women, 21 men, aged 23-85). Seventy-five live with osteoarthritis, 32 live with inflammatory arthritis and 7 live with both. Eighty-four participants had some experience of using a wearable. Preliminary themes are: 1) Becoming a more proactive self-manager: Authors found that participants became more aware of their activity levels by using a wearable, and felt more empowered in their ability to self-manage proactively; 2) Making wearables accessible: Authors reported that participants were seeking appropriate supports (e.g., written instructions) that could facilitate their early use of wearables, and commonly felt "limited" when these supports were not readily available; 3) Improving patient-doctor communication: Authors described how participants anticipated wearable data would better equip them to improve communication (e.g., by supporting shared decision-making during consultations) with health professionals.

## **Conclusions:**

Themes direct attention to situations within which autonomy is exercised in daily life. For example, while greater awareness of activity may empower some persons with arthritis to be more active, others may feel a sense of underachievement if their use of wearables is unaccompanied by appropriate support. Findings also pose questions about how wearables may impact ways of respecting patients' autonomy in patient-doctor interactions.

# Patient engagement as personal transformation: A narrative analysis of patient experience as engaged partners in research

Macdonald G, Leese J, Kerr J, Gulka L, Hoens A, Lum W, Chau Tran B, Nimmon L, and Li L

## **Presenter:**

Graham Macdonald

## **Institution:**

University of British Columbia

## **Background:**

The movement for patient engagement in research aspires to facilitate collaboration with patients at any stage in the research cycle. Patient engagement in research helps connect research to practice and is increasingly required by funders. Currently there is little empirical evidence concerning how patient engagement in research is experienced by the patient partners involved. This study aims to explore patients' motivations for becoming involved as volunteers on a patient advisory board for research, and how their experience influenced their illness narratives. Illness narratives are patients' narratives of the effects of disease on their everyday life and life story. Chronic illness is commonly experienced by patients as loss and disruption, which can lead to a shift in the narratives that people tell about their lives (Mattingly, 1994). Feelings of hopelessness and despair are common to the experience of arthritis, as evidenced in the frequent comorbidity between arthritis and depression.

## **Methods:**

This project was designed in partnership with patients with arthritis who had experience as research partners. Eligible participants were current or past members of a patient advisory board in an arthritis research centre. Participants were invited to take part in an hour-long interview. A semi-structured topic guide with prompts and probes was used to elicit detail about individuals' experience in becoming a patient research partner. An analysis of the narratives in the interviews was conducted using constant comparison method. Perspectives of patient partners on the research team were sought to guide interpretation of the data.

## **Results:**

In 2015-2016, 22 participants were recruited, 21 (95%) were female, ages ranged from 26 to 68 years, and time spent as a patient research partner ranged from 1 month to 10 years. Thirteen (59%) had inflammatory arthritis, 5 (23%) had osteoarthritis, and 4 (18%) had both. The analysis found a common narrative structure across participant accounts of becoming engaged in research. The narrative typically began by expressing the desire to learn about arthritis and how to manage it, and the desire to help others in a similar situation as the motivations to be involved in research. In the second phase of the narrative, participants detailed struggling with a steep learning curve and self-doubt about their ability to make a valid contribution to research. Participants emphasized the importance of peer mentorship and group solidarity in overcoming these difficulties. In the final phase of the narrative, participants reflected on their journey as a personal transformation in which they have come to a proactive, evidence-informed, and civic-minded orientation towards their illness. This transformation was often given expression in their illness narrative as "becoming an active patient."

## **Conclusions:**

Involvement as a patient research partner provided participants the opportunity to transform the complex experience of illness into a resource for a positive contribution. Findings from this study suggest that the narrative reconstruction of patients' illness through engagement in research may have therapeutic value that deserves to be further explored.



## **Dissemination of research results in the public libraries network: An integrated knowledge transfer project**

Massougbodji J, Zomahoun HTV, Adisso L, Sawadogo J, Borde V, Akbaraly Z, David G, Cameron C, Sanon P, Moisan H, Chateaufort L, Ndiaye M, Paquette J, and Légaré F

### **Presenter:**

Dr. José Massougbodji - @Jmassougbodji

### **Institutions:**

Québec SPOR-SUPPORT Unit

### **Background:**

There are relatively few strategies for actively disseminating health research results to the general public, which is the primary beneficiary of health care. The Bibliothèques2 project is a knowledge transfer project, which aims to evaluate the effectiveness of outreach conferences to disseminate research results to the general public through public libraries.

### **Methods:**

This project is a follow-up to a pilot phase carried out in Quebec City two years ago. Fitting into a participatory research approach, the project is led by a multidisciplinary committee of 13 people, including 4 experts in patient involvement/patient partner, 2 public library network officials representing the general public, 6 physicians/researchers and 1 science communication specialist. All committee members are equally involved from the beginning at all critical stages of the project, from research design to conferences content development. Results to be disseminated during the conferences were identified following a call to all primary care research teams in Quebec and applications were exclusively evaluated by the patient and the public representatives on the project's committee. A 1.5 hour interactive conference will be presented in public libraries. We will conduct a pre-post evaluation study targeting participants in the audience. Data on participants' sociodemographics, perceptions and satisfaction concerning the workshops as well as pre and post levels of knowledge on the subject debated, will be collected with an evaluation form. Facilitators will hold a post-conference focus group to qualitatively assess satisfaction and impact. A mixed-method analysis will be done to assess dimensions of effectiveness.

### **Preliminary results:**

Five primary care research teams across the province of Quebec submitted their results and the selected results address the high prevalence of potentially inappropriate drugs among people over 65 years of age. Seventeen libraries in Montreal and ten in Quebec City agreed to host the conferences on next spring for their clientele. Other results are to come.

### **Conclusions:**

At the end of the project, we hope to raise public awareness and reach people not yet exposed to potentially inappropriate drugs through libraries. We ultimately hope to contribute to the empowerment of the vulnerable elderly clientele. We seek to go beyond proof of concept and hope to establish the scientific foundations for a new strategy in knowledge transfer. This project is also distinctive for its strong involvement of end users, not only limited to patients, but also encompassing the general public.



## **What strategies influence integrated knowledge translation partnerships? A retrospective analysis of a partnership that aimed to understand emergency department use**

McKay RC, Harris K, Thompson T, St. Clair T, Harrold B, and Gainforth HL

### **Presenter:**

Rhyann McKay -- @rhyann\_mckay

### **Institution:**

University of British Columbia Okanagan

### **Background:**

Inappropriate use of the Emergency Department (ED) by low acuity patients is frequently cited as a burden on ED resources and impediment to care for patients with urgent conditions. To address this problem, the South Okanagan Similkameen Division of Family Practice (SOSDFP; non-profit that aims to improve health care and influence public health care policies) brought together a team of researchers, Division staff, practitioners, health authority managers, and patients to understand ED use. The research process included using behaviour change theory and an Integrated Knowledge Translation (IKT) approach to identify factors that influence patients' use of a regional ED when more appropriate care may have been available. The team co-developed and iteratively refined a Theoretical Domains Framework questionnaire that was used to identify factors that influence patients' ED use. A physician resident disseminated the final questionnaire in the ED to a sample of 100 representative patients. The SOSDFP shared the results with partners to inform policy and resource distribution across the community care continuum. The present research aimed to advance the science of IKT and understand the mechanisms underlying our partnership by retrospectively identifying partnership strategies used by the team.

### **Methods:**

Strategies of community-based participatory research identified by Israel et al. (1998) are commonly used to understand IKT partnerships. These strategies were used to conduct a retrospective analysis of the IKT research process to understand which strategies may have supported this research partnership. A sample of the team members (n = 5) was presented with the list of 8 strategies. Each member was asked to identify strategies they thought may have supported the success of the partnership and any factors which may have negatively impacted the partnership.

### **Results:**

The strategies found to support the partnership included: "jointly developed operating norms" (n=5); "democratic leadership" (n=5); "involvement if support staff/team" (n=5); "researcher role, skills and competencies" (n=5); "identification of common goals and objectives" (n=4); "presence of a community organizer" (n=4); and "identification of key community members (n=3). Other helpful strategies included early meetings to establish the working relationship; developing shared skills and tools that may be transferrable to other projects, and the involvement of students in conjunction with organizational leadership and expertise. The factors found to impact the partnership negatively included availability of partners to meet (n=5); competing priorities of involved organizations (n=4); shifting priorities and timelines of involved organizations (n=4); sharing of learnings (n=3); access to data (n=2); and having no prior history of partnership (n=2).

### **Conclusion:**

This research demonstrates how strategies of partnered research can be used to understand how teams work together in IKT partnerships retrospectively. Identifying such strategies may provide a better understanding of the underlying mechanisms which support IKT partnerships. Adhering to these strategies supported the feasibility of conducting the research in an ED setting and the relevance and usefulness of the research findings among all stakeholders.

## Connecting policymakers to disability and rehabilitation evidence

Outlaw AW

### **Presenter:**

Ann W Outlaw -- @KTDRR\_Center

### **Institution:**

American Institutes for Research

### **Background:**

The Center on Knowledge Translation for Disability and Rehabilitation Research (Center on KTDRR, [www.KTDRR.org](http://www.KTDRR.org)), housed at American Institutes for Research (AIR, [www.air.org](http://www.air.org)), promotes the use of high-quality disability and rehabilitation research relevant to the needs of intended audiences. It serves as the main knowledge translation (KT) resource for other grantees funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR), US Department for Health and Human Services. To promote uptake of NIDILRR-funded research by policymakers, the Center has designed a policy portal to channel it through a key conduit: organizations that engage in outreach to policymakers. The Center's goal is that their advocacy is based on sound evidence.

### **Methods:**

To promote disability advocates' uptake of NIDILRR-funded research, the Center website hosts a Policy Portal: a directory of consumer-oriented organizations for NIDILRR grantees to use to share their research findings with policymakers through increasing connections between researchers and consumer advocates that engage in direct outreach to legislators. Our partners at a consumer-oriented organization - the Association of University Centers for Disability (AUCD) helped populate the directory. The organizations included are well-positioned to apply research findings in their efforts to improve policies that affect the lives of people with disabilities and their families. All organizations meet criteria adapted by the Center on KTDRR from what the Cochrane Collaboration-affiliated Consumers United for Evidence-based Healthcare uses to determine its affiliations. We survey the consumer-oriented organizations to determine their current policy initiatives annually. Survey results help Center on KTDRR identify systematic reviews and research syntheses that NIDILRR grantees have authored that pertain to the organizations' expressed interests. We then distribute the relevant systematic reviews and research syntheses to public contacts of organizations on this directory. Simultaneously, we let NIDILRR authors know that their publication has been brought to the attention of these organizations and offer to facilitate contact between the NIDILRR grantee authors and consumer organization representatives. These lists will also be shared with attendees of our workshops designed to improve outreach to policymakers.

### **Results:**

The KTDRR Policy Portal launched in early 2019 on the KTDRR website. It currently includes 26 consumer-oriented organizations and can be searched by disability type or by NIDILRR Outcome Domain. The Outcome Domain is the way that NIDILRR divides its funding opportunities topically and makes it easy for NIDILRR grantees to find organizations that focus on the type of research that they do.

### **Conclusions:**

The KTDRR Policy Portal is one tool to help ensure that disability policy is guided by evidence. We aim to help consumer-oriented organizations to identify relevant and comprehensive evidence found in systematic reviews and research syntheses by the NIDILRR grantees our Center serves. Our goal is also that the conversations and relationships this initiative fosters help to raise grantees' awareness of consumers' pressing information needs, and so increase the likelihood that future research endeavors will be more responsive to improving the lived experiences of people with disabilities.

# **A tool for prevention of musculoskeletal disorders among nursing staff: Dissemination and evaluation strategies**

Poirier MH, Ziam S, Savoie L, and TELUQ University

## **Presenter:**

Marie-Hélène Poirier

## **Institution:**

University of Calgary

## **Background:**

There has been considerable research on the prevention of musculoskeletal disorders among nursing staff; however, much of this knowledge has never been transferred to nurses. A research team conducted a project to understand the main reasons explaining this situation.

The purpose of this poster is to outline the strategies used to disseminate the results of an IRSST funded research project on the prevention of musculoskeletal disorders among nursing staff. Moreover, this poster aims to give examples of evaluation methods applied throughout the process of dissemination.

## **Methods:**

The dissemination strategies were intended to raise awareness among targeted audiences as to the difficulties of applying preventive practices, and to inform managers of best practices for preventing work-related MSDs among nurses.

The dissemination strategies included:

1. Creation of a tool, in PDF format;
2. Production of a short video;
3. Production of an interactive one-hour webinar for managers, workers' representatives, employer representatives, nurses, and members of joint occupational health and safety (OHS) committees;
4. Presentation of the tool and the video to the Ministry of Health and Social Services through a webinar ;
5. Emailing to preventionists and health professionals able to share the information within their network
6. Promotion of the tool and video on social networks;
7. Presentation of the tool to conferences, and various information kiosks.

## **Results:**

We carefully documented all steps taken during the dissemination process to be able afterward to evaluate the choice of our strategies.

- A workshop was organized for a small group of managers and OHS committee leaders to find out how they plan to promote the application of preventive MSD toward nurses.
- Two surveys were conducted with participants during webinars.
- The use of indicators such as the number of downloads and views of the document have been documented at different moments.

This part of the poster will reveal the highlights of the focus group that has been organized to discuss the nurse's tool, the short video and the channels through which the information was disseminated. Results from the surveys will be revealed as well.

## **Conclusions:**

This dissemination and evaluation strategies gives us the opportunity to learn from our experience and to be able to adjust our strategies. Ultimately, we wished to improve our work, to better reach our targeted audiences.

## **Integrated knowledge translation meets patient engagement: A case study in critical care to advance patient-oriented research**

Rasiah J, Fiest K, Stelfox HT, Farrier C, Zimmerman G, and Nielssen I

### **Presenter:**

Jananee Rasiah -- @JananeeRasiah

### **Institutions:**

Patient Engagement Platform, Alberta SPOR SUPPORT Unit (AbSPORU) and Athabasca University

Patient-oriented research (POR) refers to a continuum of research that engages patients as partners, focusses on patient-identified priorities, and improves patient outcomes. The aim of POR is to apply the knowledge generated to improve health system outcomes. Principles of POR are now recognized as in alignment with two approaches: integrated knowledge translation (iKT) and patient engagement.

Common to both approaches are the practice of engaging knowledge users (including patients) as partners in research to enhance research priorities and processes, and the relevance, impact, and uptake of findings. Despite these commonalities, engaging patients as partners has unique challenges and ethical considerations, which necessitate more focused efforts to achieve successful patient engagement.

In the case study below, we present one such case with a team of experienced researchers, patients, family caregivers, other stakeholders, and patient engagement professionals. A Tier 2 health research priority setting approach was undertaken for the critical care medicine project entitled, "Co-designing a Patient and Family Caregiver-Oriented Transitions in Care Bundle." For this project, patients and stakeholders were consulted about research topics and priorities that are most important to them, which aligns with collaborate, involve, or consult levels of engagement. Patients, family caregivers, decision-makers and, clinicians were engaged as equal partners on the team.

Over the course of six months, these individuals were involved in research priority setting via consultation meetings, focus groups, and workshops to determine their collective research priorities for the next five years. It was essential to engage relevant stakeholders at the research priority setting stage, as the feedback helped tailor specific areas within the priorities to ultimately improve future uptake in clinical practice and the larger health system. There was direct buy-in from patients and family caregivers toward a shared research and implementation vision that was created in a meaningful manner. Patient and family caregivers provided input on the relevance of identified priorities (in the realm of transitions care) based on their lived experience and their expertise was recognized and put into action (iKT, whereby the knowledge is directly translated into the design).

As a result, three streams of inquiry were proposed with equal complements of researchers, patient and family caregivers, and other stakeholders. There are also challenges when engaging patients and family caregivers at the research priority setting stage, which require consideration. For example, it is important to be mindful of how discussing lived experiences may evoke an emotional response and prior experiences with the health system may influence how priorities are ranked. More broadly, a priority setting initiative involving a large, diverse group of stakeholders may present challenges in narrowing foci of interest and sustaining engagement.

Key learnings from this case study include: (1) iKT and patient engagement are approaches that are in alignment with POR; (2) Engaging knowledge users (including patients) as partners in research are common to both approaches; (3) Unique challenges when engaging patients and family caregivers must be considered for meaningful engagement; (4) Priority setting is an opportune time to engage with patients, family caregivers, and relevant stakeholders.

# Partnership experiences and project outcomes from an integrated knowledge translation funding model in rehabilitation

Roberge-Dao J, Yardley B, Menon A, Halle MC, Maman J, Ahmed S, and Thomas A

## **Presenter:**

Jacqueline Roberge-Dao -- @jackiedao\_

## **Institutions:**

McGill University, Centre for Interdisciplinary Research in Rehabilitation of Greater Montreal (CRIR)

## **Background:**

Integrated knowledge translation (IKT) can optimize the uptake of research evidence into clinical practice by incorporating knowledge users as equal partners in the research process. Although several studies have investigated stakeholder involvement in research, the literature on partnerships between researchers and clinicians in rehabilitation and the impact of these on clinical practice is scarce. This study described the outcomes and partnership experiences of an initiative that funds IKT projects co-led by a rehabilitation clinician and a researcher.

## **Methods:**

This was a sequential mixed methods study where results from the quantitative phase were used to design the qualitative phase. The 2-step quantitative phase consisted of 1) a document review to characterize the nature and breadth of each funded project and to identify the alignment of each project with the Knowledge-to-Action (KTA) framework; and 2) a survey on the characteristics and outcomes of the projects. The qualitative phase consisted of focus groups with principal investigators (researchers) and interviews with project leaders (clinicians or students) to explore their perceptions of project outcomes and their experiences with the partnership. Descriptive analysis was completed for the quantitative data and thematic analysis was used for the qualitative data.

## **Results:**

53 projects were classified onto multiple steps of the KTA framework with the most frequent steps being 4 (select, tailor and implement intervention) and 5 (monitor knowledge use). Descriptive information on the projects were obtained through the survey for 37 of the 53 funded projects (70%). 28 projects (76%) used a KT conceptual framework and of those, 24 (80%) used the KTA framework. Half of the respondents (n=18) were very satisfied or satisfied with their project's impact. Only two (6%) projects reported having measured sustainability of their projects and four (11%) measured long-term impact. A focus group with six researchers and individual interviews with nine project leaders highlighted the benefits (e.g. acquired collaborative skills, stronger researcher-clinician networks) and challenges (e.g. measuring KT outcomes, lack of planning for sustainability, barriers related to clinician involvement in research) of participating in this initiative. Considerations when partnering on IKT projects included: the importance of having a supportive organization culture and physical proximity between collaborators, sharing motives for participation, grounding projects in KT models, discussing feasibility of projects on a restricted timeline, and incorporating the necessary knowledge users. Project leaders discussed the main project outcomes (e.g. scientific contribution, training and development, increased awareness of best practice), but highlighted the complexity of measuring impact on clinical practice.

## **Conclusions:**

The study provides a portrait of an IKT funding model, sheds light on past IKT projects' strengths and challenges and provides strategies for promoting positive partnership experiences between researchers and rehabilitation clinicians. Our results highlight the importance of incorporating the necessary knowledge users and developing a robust measurement framework and plan for sustainability of the research program to produce concrete and meaningful impact.

# Effects of extended scope of practice in family physicians: A rapid review involving knowledge users

Zomahoun HTV, Samson I, Gogovor A, Massougboji J, Sawadogo J, Turgeon EDF, and Légaré F

## **Presenter:**

Jasmine Sawadogo

## **Institution:**

Québec SPOR-SUPPORT Unit

## **Background:**

Family physicians play an important role in healthcare systems. Their scope of practice could range from clinical activities in primary care to the ones in hospitals (e.g., emergency, obstetrical care). This versatility in family medicine could be supported by various organizations including the Collège des Médecins de famille du Québec. However, the synthesis of evidence on the benefits of scope of practice in family physicians has not yet been explored.

## **Methods:**

We performed a rapid literature review of peer-reviewed studies that met the following criteria: (a) Population: family physicians; (b) Intervention/Exposure: Scope of practice defined as an extension of family physicians' activities in two or more of fields mentioned above. (c) Comparator: another level of the scope of practice; (d) Outcome: any outcome related to the family physician (performance, psychosocial outcomes, clinical status); (e) Study design: experimental and observational studies. Three bibliographic databases (PubMed, EMBASE and ERIC) were consulted from 1 January 1966 to 21 August 2018. Since this review aimed to inform health system managers, we have restricted the results over the past five years. Studies selection, data extraction and selected studies quality were independently performed by two reviewers. Data were narratively synthesized. Knowledge users were involved in our review's process.

## **Results:**

Four studies, including three cross-sectional and one cohort study, were selected for a total of 13,205 participants. The methodological quality of the studies was generally acceptable. The ability of family physicians to place or remove intrauterine devices or long-acting contraceptive devices appears to be enhanced by a scope of practice including prenatal care with or without delivery (Odds Ratio (OR): 3.37 95%CI [1.99 ; 5.69]), and the insertion or removal of implants (OR : 9.04 95%CI [5.93; 13.43]). Similarly, a broad scope of practice for family physicians appears to have a protective effect on the occurrence of burnout when the practice includes hospital medicine (OR: 0.70 95%CI [0.56; 0.87]) or obstetrical care (OR: 0.64 95%CI [0.47; 0.88]). In addition, a broad scope of practice appears to facilitate the maintenance of family physician certification in both rural (OR: 1.11; 95%CI [1.07; 1.16]) and urban (OR [OR: 1.08; CI95% [1.06; 1.11]) areas. In contrast, working in both a hospital and primary care compared to working only in primary care did not appear to influence the quality of antibiotic prescribing among family physicians (OR: 0.76 95%CI [0.39; 1.49]).

## **Conclusions:**

This review based on studies conducted over the past five years found that there are many definitions of the scope of practice around clinical activities and some characteristics of clinical practice settings. The majority of the associations studied support the encouragement of a broad scope of practice among family physicians. However, the small number of studies by association type and the exploratory design used in most studies do not allow establishing a causal relationship between the scope of practice and family physicians' outcomes.



## Creating historical maps of adoption to facilitate deadoption: a scoping review

Seaton S, Polatajko H, and Colquhoun H

### **Presenter:**

Samantha Seaton

### **Institution:**

University of Toronto

### **Background:**

Despite knowledge translation (KT) being focused on the adoption of evidence-based practices, multiple factors outside of scientific evidence are believed to influence adoption, including personal, social, political, and economic factors. These factors are thought to be especially relevant when one is undertaking deadoption – the discontinuation of practices that have been found to be ineffective or harmful. Deadoption of long-standing practices may be particularly complicated, because the historical impact of these “extra-scientific” factors make the process of stopping a practice complex.

While systematic reviews help determine whether or not a clinical practice should be deadopted, they fail to unpack these ‘extra-scientific’ factors that maintain practice and impede deadoption. Examining the literature from an historical perspective may help to identify extra-scientific factors to be considered when creating a deadoption strategy.

Sensory based interventions (SBI) in occupational therapy (OT), provide an opportunity to examine the usefulness of an historical mapping approach. Despite six systematic reviews conducted over a 23-year period that have consistently found limited or inconclusive evidence to support the use of SBI, use rates have been reported as high as 98% in recent years.

To-date, there has been no attempt to understand the historical contextual factors that have served to support the use of sensory approaches over time. This study will create an historical map of contextual factors from the SBI literature. The aim is to uncover the historical social, political, and economic factors contributing to the continued adoption of SBI practice.

### **Methods:**

A novel approach to scoping reviews will be used. We will carry out an historical mapping technique, to identify papers discussing political, social and economic factors regarding SBI. Data extracted from relevant articles will be stratified by decade. Trends in the areas of research design, intervention type, and patient population will also be identified. We will systematically search EMBASE, Medline, CINAHL, & PsycINFO databases, as well as grey literature, using defined inclusion and exclusion criteria. Two reviewers will perform independent screening at the levels of title and abstract and full-text, as well as data extraction.

### **Results:**

Initial searches in five databases have yielded over 10,000 results after duplicates were removed. Further analysis will result in historical maps of the literature on an intractable KT problem in OT practice.

### **Conclusions:**

Findings from this scoping review will have implications for researchers interested in the deadoption of SBI, as well as deadoption in general. Understanding historical trends in the areas of research design, intervention, and patient population will provide OTs and OT researchers with an understanding of the heterogeneity, vastness, and key characteristics of the SBI literature. In the field of deadoption, this scoping review offers a novel approach to understanding the historical context of low-value practices and is a step closer to unpacking the extra-scientific influences on the deadoption process.



# Understanding knowledge-to-action processes in a pilot study of implementing trauma-informed approaches in community sport settings

Shaikh M, and Forneris T

## **Presenter:**

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## **Institutions:**

University of Ottawa and University of British Columbia

## **Background:**

A child's exposure to adverse experiences (e.g., family violence, abuse, neglect) can result in trauma symptomology such as cognitive and emotional dysregulation and impairments in social relatedness (Cook et al., 2005). Untreated, these symptoms may impair children's development and result in negative outcomes (e.g., poor relationships, aggressive behaviour). Trauma-informed treatment can be effective for combating trauma symptomology (Black et al., 2012) by focusing on healing dysregulated stress responses and improving children's relationship/attachment capacities. As trauma can be underdiagnosed or mislabeled (Perry, 2006), many children in need of treatment may not receive it or lack access to health resources. Researchers have called for trauma-informed treatment efforts beyond healthcare settings (Ko et al., 2008). Community-based sport programs offer barrier-free opportunities to employ trauma-informed approaches that reach youth in the contexts they engage in – without requiring program leaders to have therapeutic backgrounds (Bergholz et al., 2016).

Little research has explored how knowledge of trauma-informed approaches can be implemented by program leaders in community sport settings. The purpose of this study is to describe the knowledge-to-action processes in the pilot phase of a trauma-informed program sport program project with a Canadian non-profit youth organization.

## **Methods:**

The knowledge-to-action cycle (Graham et al., 2006) was used to guide the implementation of this project; particularly, three stages of the action cycle were focused on: (a) select, tailor, and implement interventions, (b) monitor knowledge use, and (c) evaluate outcomes. Throughout these three stages, data were gathered from program leaders using multiple methods (i.e. interviews, focus groups, logbooks, surveys, and observations). In the first stage, twelve program leaders from three sites of the participating organization attended multiple two-day workshops in which they received training in trauma-informed approaches. This knowledge was based on principles of several therapeutic approaches to youth development (e.g., cognitive behavioural therapy, attachment-regulation-competency model). Here it was explored what knowledge or skills were attained, and what expectations leaders have for using this knowledge. In the second stage, leaders' experiences and adherence to knowledge use was monitored as they designed and delivered a trauma-informed sport program at their respective sites over eight months. In the third stage, upon completion of the pilot phase, outcomes of knowledge use (e.g., changes in leaders' knowledge, skills, and expectations, and perceptions of children's receptivity) were explored.

## **Results:**

In the first stage, the leaders reported that their learning was facilitated by peer-interaction and interactive teaching in the workshop, and led to increased knowledge, skills, and readiness to apply trauma-informed approaches. In the second stage, the leaders described how their implementation experiences resulted in greater gains to trauma-informed knowledge and skills than with training workshops alone, and greater understandings of the strengths and challenges of program delivery. In the third phase, the leaders described improvements in confidence and philosophies toward working youth since this pilot experience.

## **Conclusions:**

The understandings of these processes will help to inform the expanded study of this project by providing understandings of the facilitators and barriers to trauma-informed knowledge use in this setting.

# **Embedding clinical research: Building an interdisciplinary person centred program of research**

Snelgrove-Clarke E, Paynter M, et al.

## **Presenter:**

Dr. Erna Snelgrove-Clarke -- @KTerna

## **Institutions:**

Dalhousie University and IWK Health Centre

## **Background:**

Obesity is a serious global health problem. Nearly 60% of Canadian adults have overweight or obesity; Atlantic Canadians have among the highest rates. Associated with obesity are a number of important implications for health care professionals and the health system. Our health care system is struggling to manage and provide proper care for the rising numbers of patients living with obesity. There are serious health and safety risks to health care workers associated with lifting and moving patients with obesity, and to mothers who have overweight/have excess weight. As health care providers are providing service to an increasing number of pregnant women living with obesity, researchers have begun to focus on the research evidence as it relates to the care of these women during pregnancy, birthing, and postpartum. To embed is defined as to fix firmly and deeply in one's surroundings. In order to embed a program of research within a Women and Newborns Health Program, a team requires a willingness of the host and a relationship of trust and respect. Each of these prerequisites exists within our health program. For this research, we have the support of nursing and medical staff, and clinical and senior decision makers. Our research program exemplifies the health program's vision for well-being through a KT initiative for improved outcomes for women living with obesity during pregnancy, birthing, and postpartum, and through the integration of multiple key stakeholders.

## **Methods:**

We will conduct this research in three phases: 1) assessment of readiness for implementation; including team building, 2) development and implementation of a strategy for research evidence uptake (clinical practice guideline, CPG), and 3) assessment of uptake. This research will be conducted using a mixed methods approach. Descriptive methods will be used to describe the stage of readiness for implementation, and the barriers and facilitators impacting implementation. Interrupted time series methods (a quasi-experimental design) will be used to assess the underlying trends in clinical practice in the care of women who live with obesity and to determine if this trend is influenced by the facilitative strategy that was implemented. This method will help to account for changes or trends that may be occurring that are not due to the intervention and provide information about the rate of change after an intervention.

## **Results:**

Program impacts will include improvements in areas such as patient outcomes and experiences (i.e. method of delivery), safety for patients and for healthcare providers (i.e. safe lifting and moving policies for women with excess weight), preventable health care costs (i.e. prenatal tests, ultrasounds, and longer hospital stay), and the reduction in unnecessary interventions (i.e. cesarean delivery). These impacts will be considered successful when interdisciplinary teams work together to support evidence-based practice.

## **Conclusion:**

Identification and realization of innovative effective implementation strategies within a specified clinical context will provide a model of care where the collective efforts of provider, system, and patient are realized in improved outcomes for all. Moreover, identification of these strategies will provide critical and needed information for clinical contexts across Canada.

## Evaluating the implementation of a program to improve screening and communication of risk of violent, aggressive, and responsive patient behaviours in a hospital setting

Vukmirovic M, Spithoff K, Schwalm JD, Brouwers MC, Johnson D, and Principi E

### **Presenter:**

Karen Spithoff

### **Institution:**

McMaster University

### **Background:**

Workplace violence involving aggressive and responsive patient behaviours is a top safety concern in the hospital setting. A program was developed and implemented in a tertiary care centre emergency department and inpatient units to better identify and communicate potential patient behaviour safety risks and to develop care plans to manage patients with an identified risk and prevent violent incidents. Our objective was to evaluate the implementation of the program and its effectiveness.

### **Methods:**

A mixed methods approach was used for evaluation. Surveys were administered to staff before and approximately eight weeks after program implementation to assess their perception of risk from patient behaviour and confidence in identifying, managing, and communicating patient risk. Focus groups and interviews were held with staff, with questions based on the Consolidated Framework for Implementation Research (CFIR). An audit was conducted to evaluate compliance with patient screening and use of risk communication tools (e.g., door signs, chart stickers, wristbands) and care plans. Incidence of emergency code calls, security assists, and staff safety occurrence reports related to violent, aggressive, or responsive patient behaviours before and after program implementation were analyzed.

### **Results:**

750 staff completed the baseline survey and 448 completed the post-implementation survey. Among the staff who completed both the baseline and post-implementation survey ( $n=303$ ), staff agreement that they felt at risk from violent, aggressive, or responsive patient behaviour decreased after program implementation (7-point Likert scale; 1=strongly disagree, 7=strongly agree; baseline mean 4.92 vs. post-implementation mean 4.74;  $p=0.045$ ). Staff agreement that they felt confident in identifying (5.34 baseline mean vs. 5.63 post-implementation mean;  $p<0.001$ ) and managing (4.58 vs. 5.17;  $p<0.001$ ) patients with behaviour safety risk and agreement that staff were successful at communicating risk (5.16 vs. 5.44;  $p=0.001$ ) increased. Focus groups and interviews identified key barriers to implementation and areas for improvement but most staff believed the program would help to keep them safe. Audit results showed a patient screening compliance rate ranging from 56% to 100% across units. Use of risk communication tools was appropriate in most cases; however, there was room for improvement in development of care plans for patients with an identified risk. Evaluation of program effectiveness, including emergency code calls, security assists, and safety occurrence reports, is ongoing.

### **Conclusions:**

Evaluation results identified key barriers and facilitators to implementation of the behaviour safety risk program. Overall, staff confidence in identifying, managing, and communicating patient behaviour risk increased after program implementation. These results are being used to inform continued program implementation at the test site and at other regional hospitals to improve staff safety and patient care related to violent, aggressive, and responsive behaviours.

## **Asynchronous online focus Group: A methodological approach to engage Canadians with limited mobility**

Touchette A, Ripat J, Curtis B, Stevenson D, and Sibley KM

### **Presenter:**

Alexie Touchette -- @kmsibley

### **Institution:**

University of Manitoba

### **Background:**

Engaging Canadians as partners and participants in research can be difficult for many reasons, including overcoming the obstacles faced by individuals who use mobility devices (i.e., canes, walkers, wheelchairs). Winter related challenges, like an accumulation of snow and ice, loss of traction, and extreme cold temperatures which increase the risk of frostbite and diminishes battery life in motorized devices can often prevent people with limited mobility from participating in community research activities. Yet, this population can offer important insight through their lived experiences. Therefore, researchers interested in engaging individuals with limited mobility as participants or partners need to consider appropriate methods which promote safety, comfort, and participation. Using asynchronous online focus groups, the aim of the study was to engage Canadians with limited mobility regarding the creation of a web-based toolkit of winter accessibility knowledge, products, and resources for individuals who use mobility devices.

### **Methods:**

Five separate asynchronous online focus groups were conducted in British Columbia, Manitoba, Ontario, Quebec, and Nova Scotia. Recruitment occurred through posters and email advertisements in major organizations (i.e., Multiple Sclerosis society, Cerebral Palsy Association, Canadian Paraplegic Association), universities (through researcher contacts), and mobility aid vendors. Eligible participants were mobility device users, 19 years of age or older, had access to the internet, and were willing to spend a minimum of 30 minutes per day for 7 days (duration of the focus group) to answer the daily posted questions and respond to comments. A secure website was created using WordPress.com on which the daily questions regarding strategies, resources, and products used by individuals with limited mobility were posted and the online discussions took place. Three research assistants facilitated discussions by encouraging further detail, asking follow-up questions, and providing general support. At the end of each focus group, the website was cleared and individual access was cancelled. The number of comments and likes were recorded for each participant.

### **Results:**

A total of 24 individuals each participated in one of the week-long online focus groups (BC n=8, MB n=6, ON n=5, QC n=2, NS n=3). Focus groups averaged between 7.5 (QC) and 10.3 (BC) total comments and likes per person over the duration of the week. Research assistant interactions ranged from an average of once per day (QC) to 5.6 times per day (BC). In all focus groups, participants not only answered the daily questions, but also interacted amongst themselves by providing their thoughts, advice, and support through likes and encouraging comments.

### **Conclusions:**

This study contributed to an overarching project which created an evidence-based online toolkit for Canadians with limited mobility in which the consumer's perspective was heard through a web-based focus group. Engaging people with limited mobility through an asynchronous online focus group allowed for the inclusion of geographically distributed participants and allowed flexibility of individual schedules and availability. This method also provided the opportunity for individuals with limited mobility who might otherwise experience difficulty attending in-person focus groups or interviews to contribute their perspectives and receive advice and support from people with shared experiences.

## Are researchers getting i(K)T?

Zimmermann G, McLean J, Thomson D, and Hartling L

### **Presenter:**

Dr. Gabrielle Zimmermann

### **Institution:**

Alberta SPOR SUPPORT Unit

### **Background:**

The concept of Knowledge Translation (KT) has been discussed in the Canadian research funding landscape for the last twenty years, yet how ready are researchers these days to deal with the grant-writing requirements such as having an integrated KT (iKT) proposal or writing an end-of-grant plan? One of the roles of the Alberta SPOR SUPPORT Unit (AbSPORU) KT Platform is to provide advice and support to researchers on how best to develop a KT plan or proposal to suit their research goals. Another goal is to provide training and education to students and researchers to help them understand the importance of KT and how it should be outlined in a research proposal. While we identified some general learning requirements through our initial needs assessment, we wanted to assess if there were other, more specific learning needs by looking at what researchers frequently miss when writing their KT plans. This project aimed to identify common issues for researchers writing integrated KT proposals and/or end-of-grant KT plans.

### **Methods:**

This was a quality improvement evaluation, involving qualitative and quantitative analysis of the comments provided to researchers by KT Platform staff related to the KT aspects of their grant applications. An independent assessor undertook thematic analysis and document analysis on 23 datasets.

### **Results:**

Of the 23 grants reviewed, 19 were identified as being iKT proposals, while the other four only required end-of-grant KT plans. All 19 iKT proposals also included end-of-grant KT plans. The main themes identified from the reviewers' comments focused on identifying and/or engaging knowledge users (KUs), defining KT goals, and structure (i.e. making clear connections between KT goals, strategies and KUs.) Just under half of the proposals (10/23) did not identify knowledge users or target audiences. In the iKT proposals, the majority (14/19) did not give sufficient detail of their knowledge user engagement. Defining KT goals was an issue in 10/23 of KT plans. There was a general lack of detail overall in KT plans and reviewer comments frequently outlined key aspects of KT theory suggesting a lack of real KT knowledge on the part of the grant authors.

### **Conclusions:**

Does the fact that researchers are missing some key elements of KT suggest a lack of adequate training in graduate school? Until KT becomes a routine part of how researchers think about the research process, there is value in and a need for having the kind of dedicated feedback and training provided by organizations like the AbSPORU KT Platform.