



KNOWLEDGE TRANSLATION CANADA

APPLICATIONS DES CONNAISSANCES CANADA

**KT CANADA
ANNUAL SCIENTIFIC
MEETING**

May 5th – 7th, 2021

Knowledge Translation Canada Annual Scientific Meeting 2021

May 5th – 7th, 2021

Welcome

The Steering Committee would like to welcome you to the eleventh KT Canada Annual Scientific Meeting.

Most of the planning for this event was conducted on land now known as Toronto, Ontario. Toronto is the traditional territory of many groups, including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat, and is now home to many diverse First Nations, Inuit and Métis peoples. We also acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit.

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 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 partnership.

We recognize, and we are grateful to have, the opportunity to conduct work on this land.

We encourage all of the event participants to consider and reflect on their place on the land where they are situated.

The main theme of this year's meeting is 'Developing and evaluating knowledge translation interventions in a complex health system'. Our plenary speakers – Drs. France Légaré, Carl May and Michael Strong - have had "hands on" experience with this important topic. Interspersed throughout the days are a workshop, oral presentations, posters, and panel discussions on various topics that are linked to knowledge translation research in a complex health system, 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 sharing sessions and the poster section of the online event space present an opportunity for all meeting participants to see some of the exciting KT research being conducted nationally. Please take advantage of the networking information included online to find peers with similar research interests.

We are very excited about the opportunity to host this annual scientific meeting in KT and about the program! As with all other academic events, we have shifted to a virtual meeting and we look forward to your feedback on how to optimise interaction and engagement throughout the meeting. We think that you

will find it exciting and we 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.

Sincerely,

KT Canada Steering Committee

Melissa Brouwers, Janet Curran, Ian Graham, David Johnson, Terry Klassen, Cheryl Koehn, France Légaré, Krystina Lewis, Linda Li, Dawn Stacey, Kathryn Sibley and Sharon Straus

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- Event organizer: Meghan Storey
- Event staff: Krystle Amog, Jeanette Cooper, Larkin Davenport-Huyer, Lily He, Kasthuri Karunanithi, John Lapp, Sinit Michael, Meghan Storey
- Web developer: Andrea Jimenez

Program at a Glance

Presenter(s)	Title
<i>Plenary Speakers – in order of appearance</i>	
Dr. Michael J. Strong	The Evolution of Knowledge Mobilization at CIHR
Dr. Carl May	Why do Implementation Processes Fail?
Dr. France Légaré	Reflecting on KT for a Complex Health Care System in a Time of Pandemic
<i>Panel Discussions</i>	
Dr. Nicolas Fernandez Jenny Leese Claire Ludwig Samantha Bellefeuille Mod: Dr. Melissa Brouwers	Complexity of Ethics when doing KT
Dr. Nicole Etherington Dr. Elisabeth Vesnaver Dr. Ruth Ndjaboué Mod: Dr. France Légaré	SGBA+ Considerations in KT Science and Practice
<i>Workshop</i>	
Dr. Tram Duy Ngyuen	Advancing IKT and Implementation Science: An Interactive Workshop Comparing IKT with Engaged Scholarship, Mode 2 Research, Co-productive, and Participatory Research
<i>Oral Presentations - in order of appearance</i>	
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Dr. Clayton Hamilton	Item Reduction, Reliability, and Validation of the Patient Engagement in Research Scale (PEIRS)
Dr. Jasmin Ma	Combining Patient Perspectives and The Behaviour Change Wheel to Develop Knowledge Translation Interventions
Jessica Reszel	The Experience of Using an Integrated Knowledge Translation Approach to Develop and Implement an Audit and Feedback System in Ontario Maternal-Newborn Hospitals
Johnathan Tam	Lessons Learned from Engaging Patient Partners in the Development of an E-health Intervention Designed to Support Self-Care
Day 2	
Dr. Celia Laur	Implementer and Researcher Perspectives on Sustaining, Spreading and Scaling up, Quality Improvement Interventions
Stephanie Brooks	Strategies for Knowledge Translation Intermediaries to Support and Contribute to Learning Health Systems
Dr. Meghan Sebastianski	Knowledge Synthesis Projects and Knowledge Translation Considerations: Patterns and Trends in a Specialized Research Centre
Day 3	
Dr. Justin Presseau	Mobilizing an Intersectional Lens in KT: Enhancing the Application of KT Models, Theories, and Frameworks
Dr. Nadia Minian	A Cluster Randomized Trial Testing Two Knowledge Strategies to Facilitate the Integration of Mood Management into Smoking Cessation Programming in Primary Healthcare Systems

Karen Spithoff	Implementation of a Policy to Improve the Safety of Procedural Sedation: A Barrier and Facilitator Assessment
Dr. Christine Cassidy	Implementation Strategies to Facilitate the Uptake of Practice Guidelines in Nursing: A Systematic Review
Posters	
Dr. Shannan Grant, Julianne Leblanc, Kate Braddon, and Raashni Chandrasekar	Adapting a National Glycemic Index Education Platform for Nova Scotian Patients and Clinicians Treating Gestational Diabetes Mellitus Using Distance Education Strategies
Stephanie Brooks	Initiating a Science of Storytelling: A Framework for Using Stories in Knowledge Translation Interventions
Dr. Ashley Cameron	Allied Health – Translating Research into Practice (AH-TRIP): A Multidisciplinary Initiative to Improve Clinician-Led Knowledge Translation
Gisell Castillo	Identifying Feasibility Factors to Delivering Cycling Interventions During Hemodialysis: A Theoretical Domains Framework-Informed Qualitative Study
Dr. Myriam Gagné	Developing a Decision Aid to Empower Patients and Clinicians to Share Decisions Around a New Asthma Paradigm
Dr. Natasha Hudek	Using Behavioural theory and Shared Decision-Making to Understand Clinical Trial Recruitment: Interviews with Recruiters
Julia Kontak	The Maritime SPOR SUPPORT Unit Bridge Process: An Integrated Knowledge Translation Approach to Address Priority Health Issues in Nova Scotia
Dr. Grace Kyoon-Achan	Indigenous Knowledge Translation in Action: Learning from Traditional and Community Wisdoms
Dr. Crystal MacKay	Exercise and Physical Activity Interventions for People with Lower Limb Amputations: A Scoping Review
Nicole MacKenzie	Parent Perspectives on a Knowledge Translation Resource for Pediatric Vaccination Pain Management
Laura McAlpine	Aligning Implementation Science with Practice by Co-designing an Evaluation Tool
Dr. Nicola McCleary	How is Routinely-Collected Health Data Used to Investigate the Impact of Automatic Cognitive Processes on Healthcare Professional Behaviour? A Scoping Review
Dr. Nadia Minian	Leveraging Technology to Build a Comprehensive Infrastructure to Support the Implementation of Evidence-Based Practices in Health Care Systems
Dr. Katie Sibley	Incorporating Intersectionality in Implementation Science and Practice: Development and Usability Testing of Tools to Facilitate Uptake in Implementation Intervention Planning
Karen Spithoff	A Program to Advance the Science and Practice of KT in a Local Hospital Network: Results of a Three-Year Pilot

Denise Thomson	Evidence Syntheses for Assessing the Health Impacts of Climate Change: The Key Role of Developing Search Strategies
Denise Thomson	Scoping Reviews on Climate-Health Topics: Recommendations for Methods Development
Dr. Elisabeth Vesnaver	Using the Theoretical Domains Framework and the Theoretical Framework of Acceptability to Understand Gay, Bisexual, and Other Men Who Have Sex with Men's Willingness to Participate in a Plasma Donation Program
Joanne Wincentak	A Rapid Evidence Response Program: An Integrated KT Intervention to Inform Standards of Care
Joanne Wincentak	A Theory-Informed and Integrated KT Approach for Selecting and Implementing a Clinically Relevant Screening Tool

Plenary Speakers

Dr. France Légaré, Université Laval

First trained as an architect, France Légaré practices family medicine in Quebec since 1990 and is a full professor in the Family Medicine and Emergency Medicine Department at Université Laval, Quebec.

She is an internationally recognized leader in Shared Decision-Making (SDM) and Knowledge Translation research. In 2005, she obtained her PhD in Population Health from the University of Ottawa under the supervision of Dr. Annette O'Connor. The same year, she was awarded a grant as a clinical investigator by the Fonds de la recherche en santé du Québec (FRSQ) for her research program entitled "Health professionals in primary care: From knowledge brokers to decision brokers." From June 2006 to May 2016, Dr. Légaré held the title of Tier 2 Canada Research Chair in Shared Decision Making and Knowledge Translation. As of June 1st 2016, she holds the title of Tier 1 Canada Research Chair in Shared Decision Making and Knowledge Translation. She was also the Canadian Cochrane Network Site representative at Université Laval (the CHU de Québec Research Centre) from 1999 to 2013 and, from 2013-15, its inaugural scientific director. She now acts as its scientific co-director. Dre Légaré is nominated PI/co-PI on 35 grants (>\$16 M) and Co-I on 53 (>\$49 M) for a total of >\$65 M in the past 7 years. She has published more than 350 papers with 327 PubMed indexed; her H index is 67 and she has >22 500 citations (Google Scholar). In both 2017 and 2018, she was listed as one of the top 1% most cited scientists (Clarivate Analytics <https://hcr.clarivate.com/>) indicating that her work has been repeatedly judged by her peers to be of notable significance and utility. Her research program aims at implementing shared decision making in clinical practices with a focus on home care.



Dr. Carl May, London School of Hygiene and Tropical Medicine

Carl May is Professor of Medical Sociology at the London School of Hygiene and Tropical Medicine. Carl's research focuses on developing a richer understanding of the development and implementation of innovative healthcare technologies and other complex healthcare interventions. His contributions to this field include ethnographic and other qualitative studies of professional practice and health technologies in use, along with leadership of the development of Normalization Process Theory and Burden of Treatment Theory. These models are widely used to help understand the implementation of new technologies and ways of working in healthcare, and their impacts on patients, caregivers and professionals.

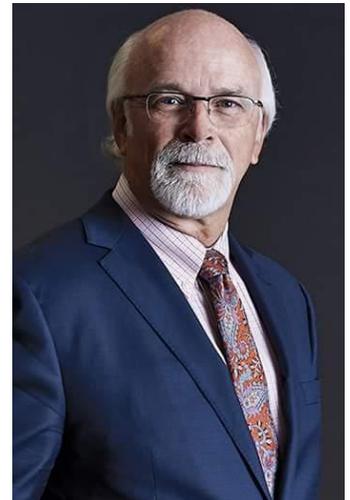


Dr. Michael J. Strong, Canadian Institutes of Health Research

Dr. Michael J. Strong became the President of the Canadian Institutes of Health Research in October, 2018. Prior to this, he served as the Dean of the Schulich School of Medicine & Dentistry at Western University where he continues to hold an appointment as a Distinguished University Professor and a Scientist at the Robarts Research Institute. He undertook his medical training at Queen's University in Kingston (1976 – 1982), neurology training at Western University (1982 – 1987), and postgraduate training at the Laboratory of Central Nervous System Studies (director - D. Carleton Gadjusek, Nobel Laureate) at the National Institutes of Health, Bethesda, Maryland under the supervision of Ralph M. Garruto, PhD (1987 - 1990).

He has published over 195 peer-reviewed articles and 29 chapters, edited 4 textbooks and given over 170 invited lectures nationally and internationally related to his research in ALS. Dr. Strong was awarded the Sheila Essay Award in 2005 and the Forbes Norris Award in 2008, and is the only Canadian to have received both international awards for ALS research. He was elected as a fellow of the American Academy of Neurology in 2008. In 2009, he was elected a Fellow of the Canadian Academy of Health Sciences.

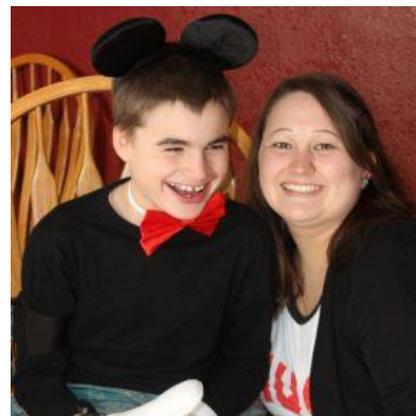
His research has focused on understanding the cellular biology of ALS (Lou Gehrig's disease) including the role of altered RNA metabolism in the genesis of neuronal cytoplasmic inclusions and in the clinicopathological correlates of the frontotemporal spectrum disorder that can be associated with ALS. The latter has led to an appreciation for the role of alterations in tau protein metabolism in ALS.



Panellists

Samantha Bellefeuille, Ottawa Hospital Research Institute

In 2019, Samantha completed the Family Engagement in Research Certificate at McMaster University and ever since she has been involved in research as a family partner. During the course, she completed infographics, presentations, research projects and more. Samantha was asked to join the SIBYAC group (Sibling Youth Advisory Council), where she attended conferences, spoke on panels, helped with research and learned a lot more about the research perspective while sharing her perspective as a Sibling/Family Partner from my experiences with my little brother. Samantha's younger brother, who is seventeen, has a rare form of epilepsy called CDKL5. Being a large part of his caregiving as well as attending multiple appointments gave me a lot of insight into a new side of pediatric care and especially the transition from pediatrics to adult healthcare. In 2020, she joined the CHEO Partner in Research program where she helps out as a Family Leader providing feedback on a variety of research projects. In September 2020, she joined the CAMI Chatbot project from the University of Alberta where she conducted research on valuable resources to be used within the Chatbot Project.



Dr. Nicole Etherington, Ottawa Hospital Research Institute

Nicole Etherington is a Senior Research Associate in the Clinical Epidemiology Program at the Ottawa Hospital Research Institute (OHRI). Dr. Etherington completed her PhD in sociology at the University of Western Ontario in 2016, with a focus on gender and health. Dr. Etherington's current research applies a social lens to clinical practice issues, focusing primarily on the multi-level factors shaping teamwork, provider occupational well-being, and patient outcomes in acute care.



Dr. Nicolas Fernandez, Université de Montreal

Nicolas Fernandez is Associate Professor at the Faculty of Medicine at the Université de Montreal. Recipient of a transplanted kidney in 2008, Nicolas learned to manage his dialysis treatments, both peritoneal and hemodialysis, over a period of eight years. This life transforming experience, combined with his academic career in educational research and teaching, allowed Nicolas to develop unique insights into self-management of chronic illness. His doctoral thesis was completed in large part during treatment sessions in the dialysis unit of his local hospital. Nicolas contributes regularly to initiatives aimed at integrating patient perspective into training of health professionals, health research and Quality Improvement in clinical settings.



Jenny Leese, University of British Columbia

Jenny Leese is a PhD candidate in Rehabilitation Sciences at the University of British Columbia and a research trainee at Arthritis Research Canada. Her qualitative research in patient-oriented knowledge translation uses an ethics lens to develop e-health interventions with persons living with arthritis. Her work is supported by a Canadian Institutes for Research Doctoral Research Award.



Claire Ludwig, University of Ottawa

Claire Ludwig is a PhD candidate at the School of Nursing, University of Ottawa. Her doctoral work is focused on patient engagement in research, specifically engaging frail and/or seriously ill patients as knowledge users. Her other research interests examine how patients and nurses negotiate the process of triage and self-management in cancer symptom management. Claire is a senior health care leader involved in the development, implementation and evaluation of large-scale programs aimed at improving patient and caregiver outcomes. Claire is also a patient with a cancer, currently in remission. She has served as a knowledge user on research projects as a healthcare administrator and as a patient advisor in the acute treatment and maintenance phases of her illness.



Dr. Ruth Ndjaboue, Université Laval and University of Toronto

Ruth Ndjaboue completed her Masters in Psychology (2006, Cameroon) and Public health (2007, Belgium) and a PhD in Epidemiology (2016, Université Laval). She is currently completing a postdoctoral fellowship in Knowledge Translation (2017-present, Université Laval and University of Toronto), funded by Diabetes Action Canada and the International Society of Medical Decision Making. Her work has contributed to knowledge advancement of the psychosocial factors, chronic diseases, medical education, gender and social inequalities. Her interdisciplinary methodological expertise includes quantitative and qualitative methods and human-computer interaction. She focuses on developing innovative strategies to facilitate patient engagement and the use of information technology in healthcare research and education.



Dr. Elisabeth Vesnaver, University of Ottawa

Elisabeth Vesnaver is a Postdoctoral Fellow in the School of Epidemiology and Public Health at the University of Ottawa. She is a social scientist interested in social determinants of health and health-related behaviour. She completed a PhD in Family Relations and Applied Human Nutrition at the University of Guelph with a focus on gender, age, and food-related behaviours. Her current work focuses on using participatory research approaches to develop interventions to support plasma donation behaviour among men who have sex with men in a context of ongoing exclusionary policies.



Workshop

Advancing IKT and Implementation Science: An Interactive Workshop Comparing IKT with Engaged Scholarship, Mode 2 Research, Co-production, and Participatory Research

Nguyen T, Graham ID, Mrklas KJ, Bowen S, Cargo M, Estabrooks CA, Kothari A, Lavis J, Macaulay AC, MacLeod M, Phipps D, Ramsden V, Renfrew MJ, Salsberg J, and Wallerstein N

Presenter:

Dr. Tram Duy Nguyen

Institution:

University of Ottawa

Background:

Collaborative research approaches have been proposed as a strategy for increasing adoption of research findings. The objectives of this interactive workshop are:

- To present the findings of a study comparing IKT with engaged scholarship, Mode 2 research, co-production, and participatory research
- To learn from experts in the field about similarities, differences, and best practices among these collaborative research approaches
- To facilitate discussion between experts and workshop attendees about their experiences with collaborative research approaches
- To work collaboratively as a group to brainstorm/develop next steps for establishing shared understanding and communication of collaborative research approaches.

Methods:

Integrated knowledge translation (IKT) is a research partnership approach that encourages researchers and knowledge users (e.g., patients, healthcare professionals, and policy makers) to work together as full team members who are actively involved in every step of the research process. We conducted qualitative interviews with experts in the field to learn from their experiences and expertise. Thematic analysis identified emergent themes relating to engagement and the partnering process.

Outline of interactive workshop:

- I. Introduction and background (Tram; 5 minutes)
 - Introduction of presenters/experts
 - Overview of study and key findings (study objective, results etc.)
- II. Similarities and differences: Sharing expert experiences (All presenters; 35 minutes)
 - Presenters/experts will take turn sharing their experiences and expertise of various approaches
 - Workshop attendees will work in small groups to share their own experiences with collaborative research approaches as well as identify similarities and differences among them
- III. Large group discussion (All presenters and attendees; 20 minutes)
 - Summary of lessons learned and next steps
 - Questions and take-home messages

Results:

Similarities between IKT and the other research partnership approaches included values and principles, financial and time investments, and essential partnering components. Differences between the approaches included: purpose, historical roots, theoretical underpinnings, and defining characteristics.

Conclusions:

This study is the first to systematically synthesize experts' perspectives and experiences in a comparison of research partnership approaches. Results of this work will be used to inform researchers, clinicians, and trainees in selecting an appropriate approach best suited for their research agenda. Results of this study are novel and could contribute foundational knowledge to advance IKT and implementation science.

Oral Presentations

In order of appearance at meeting

Item Reduction, Reliability, and Validation of the Patient Engagement in Research Scale (PEIRS)

Hamilton C, Hoens A, McKinnon A, McQuitty S, English K, and Li L

Presenter:

Dr. Clayton Hamilton

Institution:

Department of Physical Therapy, University of British Columbia

Background:

The PEIRS was developed as a 37-item self-reported experience questionnaire to assess the degree of meaningful engagement in health research project from a patient partner perspective. PEIRS is based on a conceptual framework for meaningful patient engagement in research and empirical research. The items use 5-point Likert response scales and are arranged into seven domains corresponding to themes of the conceptual framework. Refining the PEIRS to include only items statistically necessary for measurement could reduce its administrative burden. Furthermore, confirming the PEIRS internal consistency and construct validity would endorse its total score. We sought to shorten the Patient Engagement In Research Scale (PEIRS) to its most essential items and evaluate its measurement properties for assessing the degree of patients' and family caregivers' meaningful engagement as partners in research projects.

Methods:

We conducted a research ethics board approved cross-sectional web-based survey in Canada and the USA, and also paper-based in Canada. Participants were patients or family caregivers who had engaged in research projects within the last 3 years, were ≥ 17 years old, and communicated in English. Guided by quality criteria for the measurement properties of health status questionnaires, the target sample size was at least 100 participants for satisfactory evaluation of internal consistency and 50 participants for test-retest reliability over two to seven days. Data analysis was conducted in RStudio and in RUMM2030. Extensive psychometric analyses were conducted, including exploration of each item's fit with the other items of the PEIRS using polychoric correlation among items and polyserial correlation between each item and PEIRS total scores. Once the PEIRS was refined for adequate internal consistency, its underlying construct was assessed through exploratory factor analysis and Rasch analysis. We evaluated reliability of the validated PEIRS's scores and the extent to which qualitative meaning can be assigned to PEIRS scores.

Results:

119 participants: 99 from Canada, 74 female, 51 aged 17–35 years and 50 aged 36–65 years, 60 had post-secondary education, and 74 were Caucasian/white. The original 37-item PEIRS was shortened to 22 items (PEIRS-22), mainly because of low inter-item correlations. PEIRS-22 had a single dominant construct that accounted for 55% of explained variance. Analysis of PEIRS-22 scores revealed: (1) acceptable floor and ceiling effects ($<15\%$), (2) internal consistency (ordinal $\alpha=0.96$), (3) structural validity by fit to a Rasch measurement model, (4) construct validity by moderate correlations with the Public and Patient Engagement Evaluation Tool, (5) good test-retest reliability ($ICC_{2,1}=0.86$), and (6) interpretability demonstrated by significant differences among PEIRS-22 scores across three levels of global meaningful engagement in research.

Conclusions:

The shortened 22-item PEIRS is valid and reliable for assessing the degree of meaningful patient and family caregiver engagement in research. It enables standardized assessment of engagement in research across various contexts.

Combining Patient Perspectives and The Behaviour Change Wheel to Develop Knowledge Translation Interventions

Ma JK, Tsui K, Sequeira L, McQuitty S, Jiwa S, Hoens AM, Davidson E, Collins JA, Chan A, Shu H, and Li LC

Presenter:

Dr. Jasmin Ma

Institution:

Arthritis Research Canada/University of British Columbia

Background:

Although almost 50 barriers to participating in strength training among people with rheumatoid arthritis have been identified, there has been little done to address them. The Behaviour Change Wheel (BCW) is a theory-based process that can be used to systematically identify strategies to address barriers. The involvement of end-users in intervention development has been supported to increase the relevance and impact of research; however, no study has reported on engaging patient partners in using the BCW. The purpose of this study was to use both the BCW and patient perspectives to develop knowledge translation interventions to support strength training participation among people with rheumatoid arthritis.

Methods:

Seven patient partners of varying gender (male=2), age (range=22-76), strength training experience (no experience to exceeding the guidelines of strength training at least two days/week), and arthritis types (rheumatoid arthritis, osteoarthritis, Raynaud's disease, psoriatic arthritis, juvenile idiopathic arthritis) and two researchers participated in the BCW process. Barriers to ST participation that were identified previously through semi-structured interviews with people with rheumatoid arthritis were coded by researchers using the capability, opportunity, motivation- behaviour model (COM-B) and the Theoretical Domains Framework (TDF). Patient partners reviewed and confirmed the findings. Both patient partners and researchers identified relevant knowledge translation intervention strategies by triangulating existing evidence on strength training behaviour change, suggested intervention strategies using the BCW, and patient perspectives.

Results:

Barriers were coded into capability (n=9), opportunity (n=27), and motivation (n=12) components. Researchers and patient partners considered all sources of evidence and identified capability and opportunity as the most salient components to affect ST behaviour in this population. Within capability and opportunity, specific TDF domains were identified to target including physical skills, goals, knowledge, environmental context and resources, and social influences. Pragmatically, patient partners and researchers highlighted the need for knowledge translation interventions directed towards healthcare providers. This included guidance on how to 1) tailor exercise advice based on whether the patient is experiencing a flare or has previous strength training experience, 2) identify and describe acceptable vs 'bad' pain during and following strength training, and 3) develop exercise prescriptions that fit with individuals' daily activities and the variable nature of symptoms and disease activity (e.g., pain, stiffness, fatigue, flares). Furthermore, lessons learned from the patient engagement process were documented such as the need for flexibility in the BCW process, strategies for weighing the different perspectives, and acknowledging issues related to generalizability.

Conclusion:

These findings will be used to develop a mixed-methods follow-up study to explore whether these gaps in knowledge align with health professional perspectives. Using the BCW and other theory-based methods are important approaches to identifying which intervention constructs should be targeted in a manner that is rigorous and generalizable; however, end-user perspectives provide insight into the specifics of how theoretical constructs should be targeted and put into practice in the real world.

The Experience of Using an Integrated Knowledge Translation Approach to Develop and Implement an Audit and Feedback System in Ontario Maternal-Newborn Hospitals

Reszel J, Dunn S, Weiss D, Graham ID, Sprague A, and Walker M, on behalf of the Maternal Newborn Dashboard team

Presenter:

Jessica Reszel

Institution:

Ottawa Hospital Research Institute and Better Outcomes Registry & Network (BORN) Ontario

Background:

Integrated knowledge translation (IKT) involves an ongoing relationship between researchers and knowledge users for the purpose of engaging in a mutually beneficial project to support decision-making. We used an IKT approach to co-create and implement a new innovation, the Maternal Newborn Dashboard (MND), an electronic audit and feedback system with six key performance indicators (KPI) for all Ontario maternal-newborn hospitals. As one part of our mixed-methods study, we evaluated our use of an IKT approach to co-create and implement the MND, and the effect on end-user uptake.

Methods:

We drew from two data sources. Stakeholder survey: We developed and administered an electronic survey to stakeholders involved in MND development (e.g., KPI selection, benchmark setting, dashboard design/testing, implementation/post-implementation). The survey included closed- and open-ended questions to assess respondents' perceptions of the process used to develop and implement the dashboard and identify areas for improvement. Case study: We conducted a case study (including interviews and focus groups) with a purposeful sample of diverse Ontario maternal-newborn hospital personnel who had varying success improving rates on MND KPIs. Qualitative content analysis was used to code and categorize the data. The use of these two data sources allowed comparison of perspectives between those directly involved in MND development/implementation (survey respondents) and those that were not (case study participants).

Results:

Nineteen stakeholders completed the survey (response rate=54%), including those involved in KPI selection and benchmark setting (n=11), dashboard design and testing (n=7), and dashboard implementation (n=13). In addition, 107 stakeholders from 14 hospitals participated in the case study, primarily maternal-newborn healthcare providers (n=63) and leaders (n=31). All survey respondents (n=19/19) directly involved in MND development/implementation were satisfied with the process used and most agreed that all essential stakeholders were involved in KPI selection and benchmark setting (n=10/11), design and testing (n=6/7), and implementation (n=8/13). These stakeholders perceived that end-user engagement and communication was good and the MND was feasible to implement and disseminate to users, with some ideas for improvement. Some of our case study participants not directly involved in MND development/implementation demonstrated a misunderstanding of the process used to select the KPIs and set benchmarks for the MND. For example, some end-users were not aware of why KPIs were selected and/or erroneously believed that only researchers were involved in creating the MND, with inadequate input from clinicians. This resulted in some individuals/teams doubting the credibility of the MND and subsequently not initiating any clinical practice changes on the targeted KPIs.

Conclusions:

Despite using a large and diverse interprofessional provincial committee and a highly coordinated communication strategy, some end-users lacked knowledge about the MND and the development process, which limited uptake in clinical practice. Key recommendations for an IKT approach to enhance the acceptability and uptake of future health-system level innovations include: (1) finding new and feasible ways to engage a broader group of end-users in the co-creation process, and (2) enhancing transparent communications to non-participants of the original IKT process.

Lessons Learned from Engaging Patient Partners in the Development of an E-health Intervention Designed to Support Self-Care

Tam J, Lacaille D, Knight A, McQuitty S, English K, Collins J, Davidson E, and Li LC

Presenter:

Johnathan Tam

Institution:

Arthritis Research Canada

Background:

Over the years, patient collaboration has become increasingly popular in research. Patient partners can provide valuable insight, stemming from their own unique experiences, which can vastly enhance the relevance and impact of a study. In the OPERAS (an On-demand Program to Empower Active Self-management) study, we engaged patient partners to develop a website and mobile app to support patients with rheumatoid arthritis at empowering self-care by tracking their disease symptoms, self-management goals, medication use, and physical activity. Drawing from our team's collective experience as researchers, clinicians, patients, and professors, this paper aims to learn from the experience of patient-researcher partnership in OPERAS.

Methods:

During the development of OPERAS, we created a framework to guide our interactions with patient partners in meetings. The framework outlined key topics of discussion and questions to promote engagement. These discussions were documented via written notes and also video recorded for future reference. Following the finalized creation and launch of OPERAS, the research staff reflected on the collaboration process by reviewing the written notes and videos, identifying a list of challenges and lessons learned. We then engaged with five patient partners to review our own reflections, evaluate which components of the collaboration were effective, determine areas for improvement, and suggest additional challenges and lessons learned.

Results:

From our team's reflections and discussions with patient partners, the following eight lessons learned were identified as important for effective collaboration: 1) Developing a framework to guide website and app development processes, 2) Involving patient partners in meetings with technology partner as there was interest in the back-end process of how apps are developed and also interest in seeing research team interactions with supervisors, 3) Developing simple flow charts and visuals to ensure clarity in project progress and objectives as the apps can be very complex and it becomes difficult to focus on the entire project scope, 4) Encouraging patient partners to think aloud when testing beta versions so research team members can record everything, 5) Keeping patient partners up-to-date with follow-up emails and updates on app development progress to enhance feedback and suggestions from patient partners, 6) Using plain language in discussions and written documents for patient partners to improve comprehension and accelerate the development process, 7) Learning about a patient partners' arthritis story and background, and 8) Providing opportunities for both larger group meetings and one on one meetings adds insights and synergies which might not be otherwise realized.

Conclusion:

The OPERAS study engaged patient partners with various backgrounds and skills to develop the website and mobile app. Here, we highlight the lessons learned from this partnered research. These results have provided our team with helpful tips in engaging patient partners in future studies. It is our hope that this will further our team's growth towards working effectively with patient partners.

Implementer and Researcher Perspectives on Sustaining, Spreading and Scaling up, Quality Improvement Interventions

Laur C, Corrado AM, Grimshaw JM, and Ivers N

Presenter:

Dr. Celia Laur

Institution:

Women's College Hospital

Background:

Quality Improvement (QI) programs rarely consider how their intervention can be sustained long term. Failing to adequately consider sustainability contributes to research waste and has the potential to make patient outcomes worse, if patients relied upon the QI program to improve quality of care. A survey of authors of randomized trials of diabetes QI interventions included in an ongoing systematic review found that 78% of trials reported improved quality of care, but 40% of these trials were not sustained following study completion. This study further explores why and how the effective interventions were sustained, spread or scaled.

Methods:

A qualitative approach was used, focusing on case examples. Diabetes QI program trial authors were purposefully sampled and recruited for telephone interviews. Authors were eligible if they had completed the author survey, agreed to follow-up, and had a completed a diabetes QI trial they deemed "effective". Snowball sampling was used if the participant identified someone who could provide a different perspective on the same trial. Interviews were transcribed verbatim. Inductive thematic analysis was conducted to identify barriers and facilitators to sustainability, spread, and/or scale of the QI program, using case examples to show trajectories across projects and people.

Results:

Eleven trial authors (n=9 male; 13 studies) were recruited from the United States (n=8), Canada (n=2) and Australia (n=1), including: physicians (n=5), pharmacists (n=2), non-clinicians (n=2), a dietitian (n=1), and a psychologist (n=1). 12/13 studies featured interventions that were deemed "effective" in the survey; 5/13 reported that the intervention was "sustained". In the interviews, one participant clarified that only the ideas were sustained, not the intervention, while another said the intervention was sustained because it was being used elsewhere. Two participants indicated it was sustained for a few years after funding ended but has since stopped. One is still sustained. Three interacting themes, termed the "3C's", helped explain the variation in sustainability, spread, and scale: i) understanding the concepts of implementation, sustainability, sustainment, spread and scale; ii) having the appropriate competencies; and iii) the need for individual, organisational and system capacity. Participant stories highlighted the varied trajectories of how projects evolved and how some research careers adapted to increase impact. One participant had an effective intervention, however left academia in order to implement it at scale. Another had an effective pilot that quickly gained interest and was scaled nationally, with research conducted to understand how it should be sustained and spread. However, the timing did not align, and the scaled interventions failed before the results of the other study were complete.

Conclusions:

Challenges in defining sustainability, spread and scale make it difficult to fully understand impact. However, it is clear that from the beginning of intervention design, implementers and researchers need to understand the concepts and have the competency and capacity to plan for feasible and sustainable interventions that have potential to be sustained, spread and/or scaled if found to be effective. Principles of Integrated Knowledge Translation appear to play a key role in having a sustained intervention.

Strategies for Knowledge Translation Intermediaries to Support and Contribute to Learning Health Systems

Brooks S, Thomson D, Zimmermann G, and Hartling L

Presenters:

Stephanie Brooks

Institution:

University of Alberta

Background:

The Alberta SPOR SUPPORT Unit (AbSPORU) is a research and knowledge translation (KT) intermediary established to support patient-oriented research and implementation. The integrated nature of Alberta's health system has offered AbSPORU a number of avenues to support implementation of evidence-based care. In the first phase of AbSPORU (2014-2021), we were mandated to establish implementation support services by building relationships with health system partners. Aligned with the growing interest in learning health systems (LHSs) our mandate for Phase 2 (2021-2025) has expanded from working with health systems to contributing to LHSs. Thus, we must conceptualize what an LHS in Alberta looks like, what LHS processes and initiatives are already underway, and in what ways AbSPORU can contribute. The steps we are taking to plan our expanded role are providing insights into opportunities for intermediaries generally to support structures and processes in LHSs.

Methods:

We are developing strategies to support Alberta's LHS using three methods. First, we have conducted a literature review for various terms describing LHS structural components, goals, processes and models of LHSs. Second, we are conducting a social network analysis of if/how organizations that support implementation in Alberta collaborate with one another. Third, we are bringing AbSPORU leadership together to review the results of the literature review and align our conceptualization of Alberta's LHS. Leaders are also taking inventory of existing AbSPORU initiatives that contribute to Alberta's LHS. These activities will provide critical knowledge of how evidence currently moves from research to practice in the Alberta context. In turn, these activities are providing the foundation for us to develop a strategy to continue strengthening our supports and processes in Alberta's LHS.

Results:

LHSs offer a variety of opportunities for intermediaries to support and study health care implementation, delivery, and improvement. The literature review highlighted opportunities to support LHSs through provision of social, technological, intellectual, and scientific supports and facilitation of embedded research. Our social network analysis will map the organizations, processes, and structures that currently enable implementation and what gaps still exist. AbSPORU will use this knowledge to assess how existing Unit initiatives are already contributing to Alberta's LHS and what additional services we can provide to further strengthen it. The resulting contribution strategy, and how it can be adapted for other intermediaries, will be presented.

Conclusion:

By mapping existing intermediary services and health system implementation supports to LHS constructs, AbSPORU is identifying numerous opportunities to facilitate and accelerate knowledge translation in an LHS. Examples of ways intermediaries can support LHSs include, but are not limited to, facilitating priority setting processes, organizing embedded research, and building KT capacity in researchers, as knowledge providers, and health system and policy teams, as knowledge receptors.

Knowledge Synthesis Projects and Knowledge Translation Considerations: Patterns and Trends in a Specialized Research Centre

Sebastianski M, Bialy L, Thomson D, and Hartling L

Presenter:

Dr. Meghan Sebastianski

Institution:

Alberta Strategy for Patient-Oriented Research (SPOR) SUPPORT Unit Knowledge Translation Platform, University of Alberta

Background:

Knowledge synthesis (KS) is the cornerstone for evidence-based decision-making. Yet, KS activities will only have impact if accompanied by a knowledge translation (KT) plan including knowledge users and decision makers.

DESIGN: Quality assurance of KS projects supported by a specialized research centre.

OBJECTIVES: Describe the KS projects we have supported to: 1) understand the supports required, maximize resource utilization, and build on lessons learned; and 2) identify opportunities and mechanisms to optimally integrate KT into KS processes.

Methods:

We implemented a survey that gathered information on KT considerations, knowledge users, and dissemination.

Results:

Response rate was 75.9% (63 of 83). Less than half of respondents (42.9%) indicated they had a KT plan. Various knowledge users were involved, mainly healthcare practitioners (54.0%), with only 14 studies (22.2%) identifying patients as knowledge users. Review results were used for a variety of purposes and products, e.g. decision aids, clinical practice guidelines, coverage decisions, grant applications, and subsequent projects.

Conclusions:

We have supported a large number of KS projects that have the potential to impact patient health outcomes; however, less than half had a KT plan. Among those with a KT plan, a variety of knowledge users were involved and a range of products have emerged with the potential to bridge the research-practice gap. Nevertheless, our data demonstrate that more work needs to be done to enhance linkages between KS projects and KT activities to ensure optimal impact on patient outcomes.

Mobilizing an Intersectional Lens in KT: Enhancing the Application of KT Models, Theories, and Frameworks

Presseau J, Kasperavicius D, Bruyn-Martin L, Duncan D, Giguère A, Kelly C, Hoens AM, Holroyd-Leduc JM, Moore J, Sibley K, Daalen-Smith CLV, and Straus SE, On behalf of the Intersectionality & Knowledge Translation project team

Presenters:

Dr. Justin Presseau

Institution:

Ottawa Hospital Research Institute

Background:

Intersectionality explores the complex nature of intersecting social factors (e.g., age, sexuality, gender identity) and their interaction with compounding power structures (e.g., education system) and forms of discrimination (e.g., sexism). Models, theories, and frameworks (MTFs) can support knowledge translation (KT) practitioners to develop rigorous KT interventions. Within our complex health system, there is increased recognition that intersecting social factors have significant impacts on KT interventions. Currently, KT MTFs lack fulsome exploration of intersectionality considerations.

Aiming to support KT intervention developers to take an intersectional approach in their work, our objectives were to select MTFs representing key steps in the Knowledge-to-Action Model (KTA): problem identification; assessing barriers/facilitators to knowledge use; and selecting/tailoring/implementing interventions, and secondly, to provide intersectionality considerations for each MTF.

Methods:

Seventeen MTF experts, KT researchers/practitioners, and intersectionality experts considered 134 KT MTFs identified from a scoping review. We used a Delphi procedure to select one MTF for each KTA stage. In round 1, participants formed sub-groups, reviewed full-text articles describing a sub-set of MTFs, and rated each MTF's overall importance based on acceptability, applicability, and usability on a Likert scale from 1 (unimportant MTF) to 7 (important MTF). In subsequent rounds, medians and ranges for each MTF were shared and MTFs with a median ≤ 5 were excluded unless participants voiced concerns about exclusion. In round 2, all participants reviewed and rated full-text articles on MTFs selected in round 1. The same process for discussing and excluding MTFs was used. Participants completed two additional rounds to select one MTF for each KTA stage. An intersectionality lens (e.g., incorporating reflexivity) was then used to enhance application of each selected MTF by experts using co-creation principles and 12 review rounds.

Results:

Experts selected: the Iowa Model of Evidence-Based Practice for the 'problem identification' stage; the Consolidated Framework for Implementation Research (CFIR) for the 'assess barriers/facilitators to knowledge use' stage; and the Theoretical Domains Framework/Behavior Change Wheel (TDF/BCW) for the 'select/tailor/implement interventions' stage. To the Iowa Model of Evidence-Based Practice, experts added self-reflection as the first step, added a step for selecting practice changes, moved the team formation step to the beginning of the model, and included intersectionality reflection prompts throughout the model. In addition to embedding intersectionality prompts throughout the CFIR, experts recommended two additional constructs for consideration: outer culture and outer systems and structures. Within the existing TDF/BCW visual depiction, experts added a pictorial representation of an individual's intersecting categories. Reflection prompts were added to all TDF/BCW constructs.

Conclusions:

An intersectional lens was used to enhance application of three MTFs perceived to be acceptable, applicable, and usable for KT practitioners. This approach could be used for enhancing use of other KT MTFs. Future project phases will investigate the usability and impact of tools to facilitate an intersectionality approach to using the selected MTFs in KT intervention development. It is hoped that this work can be used to design KT interventions that more fulsomely consider and account for unique human experiences and address inequities within our complex health system.

A Cluster Randomized Trial Testing Two Knowledge Strategies to Facilitate the Integration of Mood Management into Smoking Cessation Programming in Primary Healthcare Systems

Minian N, Ahad S, Ivanova A, Zawertailo L, Baliunas D, Ravindran A, Oliveira CD, Mulder C, Noormohamed A, and Selby P

Presenter:

Dr. Nadia Minian

Institution:

Centre for Addiction and Mental Health

Background:

Knowledge Brokers (KBs) are often utilized in implementing complex interventions, even though there is conflicting evidence regarding their effectiveness. The objective of this study was to compare a remote knowledge broker (rKB) vs generalized, exclusively email-based prompts, in implementing a mood management intervention for depressed smokers enrolled in a smoking cessation program (the Smoking Treatment for Ontario Patients, STOP, program) in Family Health Teams (FHTs). This intervention was chosen given:

- 1) The need to address mood among STOP participants; 38% of smokers have current or past depression; their 6-month quit rates are significantly lower than participants without depression.
- 2) The strong evidence showing its effectiveness; a Cochrane review demonstrated that integrating a mood management component within standard smoking cessation programming significantly increases long-term abstinence rates among smokers with current or past depression.

Methods:

The Interactive Systems Framework for Dissemination and Implementation underpins this two arm cluster pragmatic mixed method randomized hybrid type III trial. Across Ontario, 123 FHTs participating in a smoking cessation program were randomly allocated 1:1 to receive either: a generalized monthly email focused on implementing a depression component to a smoking cessation program, or a remotely situated knowledge broker offering tailored support via phone and email, to encourage the implementation of an evidence-based mood intervention to smokers presenting depressive symptoms. The primary outcome was the adoption and sustainability of the mood intervention over 12 months, which was measured at the site level, and operationally defined as the proportion of eligible baseline visits which result in practitioners delivering the mood management intervention to patients as measured by the STOP patient management portal. The secondary outcome, measured at the patient level, is smoking abstinence at 6-month follow-up, measured by self-report of having abstained from smoking for at least 7 previous days.

All FHTs were invited to participate in two interactive webinars aimed at increasing healthcare provider specific capacity in delivering mood interventions. Participating FHTs also received access to an integrated care pathway within the STOP portal to facilitate the delivery of a brief intervention and a self-help mood management resource.

Results:

Over 50 healthcare providers attended at least one interactive webinar. Between February 2018 and January 2019, 7,175 smokers were screened for depression, among whom 2,765 (39%) reported current/past depression. Among those who reported current/past depression, 983 smokers (36%) were offered a self-help mood management resource. 782 (80%) of the patients who were offered a resource, accepted it. Adjusted regression analyses of 2,763 participants with complete covariate data showed there was no significant between-group difference in the odds of participants accepting the mood management resource (OR=0.93, 95% CI: 0.60-1.43).

Conclusions:

Results from our current investigation indicate that both KT interventions are equally effective at engaging providers from multidisciplinary healthcare settings to implement evidence-based mood interventions into practice. Future research will seek to investigate the cost-effectiveness of each intervention to better understand their feasibility for implementation within complex health systems.

Implementation of a Policy to Improve the Safety of Procedural Sedation: A Barrier and Facilitator Assessment

Sanderson K, Spithoff K, Collerman A, and Schwalm JD

Presenters:

Karen Spithoff

Institution:

McMaster University

Background:

Many diagnostic and therapeutic procedures require the administration of sedation to induce decreased level of consciousness and minimize patients' pain and anxiety. Procedural sedation is associated with risk of serious complications, including allergic reactions, over-sedation, and cardiorespiratory complications. A local hospital network developed a policy outlining best practices for caring for adult patients undergoing procedural sedation to optimize patient safety, including standards related to equipment and supplies; clinician competencies, roles, and accountabilities; patient screening criteria; documentation standards; and patient discharge criteria. An assessment was conducted to identify barriers and facilitators to policy implementation and determine current practices related to procedural sedation.

Methods:

Clinical units to which the policy applied were requested to complete a clinical environment risk assessment (CERA) form to determine baseline compliance with components of the procedural sedation policy and to identify mitigation strategies where there were gaps between current practice and policy requirements. Semi-structured focus groups were conducted with clinical leaders and frontline staff from selected representative clinical units to discuss the CERA form results and identify barriers and facilitators to policy implementation. Focus group questions were based on policy content and selected constructs of the Consolidated Framework for Implementation Research (CFIR). Focus groups were audio-recorded and results were summarized by the focus group facilitator and reviewed by clinical unit leadership.

Results:

Completion of the CERA forms identified areas for improvement in patient screening, clarification of clinician roles during procedural sedation, and communication between the procedural physician and non-physician monitors before, during, and after the procedure. Focus groups were held with the following units: endoscopy, interventional radiology, medical diagnostic unit, surgical centre, intensive care, and cardiac intensive care. Although common barriers and facilitators to policy implementation were identified across units, other barriers and facilitators were unique to particular units due to type of procedures provided, staffing, unit culture, or physical environment. Common barriers included design, quality and packaging of the intervention; and available resources. Leadership engagement was a barrier in several units and a facilitator in others. Common facilitators included readiness for implementation; beliefs that implementing the policy would reduce patient risk; and relative priority of implementing the policy.

Conclusions:

Results of the current practice assessment (i.e., CERA forms) and the barrier and facilitator assessment are being used by the implementation leadership team to tailor implementation strategies to each clinical unit (e.g., simulation-based training initiatives) and to improve tools and resources for policy implementation. Results will also be used as a baseline with which to compare post-implementation practices.

Implementation Strategies to Facilitate the Uptake of Practice Guidelines in Nursing: A Systematic Review

Cassidy C, Harrison MB, Godfrey C, and Graham ID, On behalf of the Implementation Strategies in Nursing Systematic Review Working Group

Presenter:

Dr. Christine Cassidy

Institution:

Dalhousie University

Background:

Practice guidelines can reduce variations in nursing practice and improve patient care. However, implementation of practice guidelines is complex and inconsistent in practice. It is unclear which strategies are effective at implementing clinical guidelines in nursing practice. The purpose of this review was to determine the effectiveness and feasibility of implementation strategies to facilitate the uptake of guidelines focused on nursing care.

Methods:

We conducted a systematic review of five electronic databases in addition to the Cochrane Effective Practice and Organization of Care (EPOC) Group specialized registry up to September 30th, 2020. Randomized controlled trials were included if the implementation strategy was aimed at implementing guidelines in nursing and reported assessments of the process or outcome of care provided by nurses. Two reviewers independently screened studies, assessed study quality, extracted data, and coded data using the EPOC taxonomy of implementation strategies. For those strategies not included in the EPOC taxonomy, we inductively categorized these strategies and generated additional categories. We conducted a narrative synthesis to analyze results.

Results:

Of the 38,172 citations screened, 46 papers reporting on 41 studies met the inclusion criteria. The methodological quality varied but the majority had low or unclear risk of bias. Most implementation strategies were multi-component and included a combination of educational materials and educational meetings (n=36). A number of studies employed implementation strategies not listed within the EPOC taxonomy, including adaptation of practice guidelines to local context (n=9), external facilitation (n=14), changes to organizational policy (n=3), as well as theory-based approaches (n=17). Review findings show that multicomponent implementation strategies that include educational meetings, in combination with other educational strategies, report positive effects on professional practice outcomes, professional knowledge outcomes, patient health outcomes, and resource use/expenditures. Participatory approaches also show positive trends in patient, provider, and health system outcomes.

Conclusions:

Nursing is advancing the science on implementation strategies. A key finding in this review is the identification of important implementation strategies used in the nursing trials not found in the EPOC taxonomy, including participatory approaches such as facilitation, adaptation and organizational changes. Nursing and other disciplines that work primarily in teams may benefit from using participatory-based implementation strategies. Further research is needed to understand how different implementation strategy components work in a nursing context and to what effect. As the field is still emerging, future reviews should also explore guideline implementation strategies in nursing in quasi or non-experimental research designs and qualitative research studies.

Poster Presentations

In alphabetical order, by last name of presenter

Adapting a National Glycemic Index Education Platform for Nova Scotian Patients and Clinicians Treating Gestational Diabetes Mellitus Using Distance Education Strategies

LeBlanc J, Braddon K, Chandrasekar R, Coolen J, Carson G, Hayward K, Lezama B, Snelgrove-Clarke E, and Grant S

Presenters:

Dr. Shannan Grant, Julianne Leblanc, Kate Braddon, and Raashni Chandrasekar

Institution:

Mount Saint Vincent University, IWK Health Center, Dalhousie University, and Queen's University

Background:

Dietary interventions traditionally focus on medically relevant primary outcomes (e.g., blood glucose), often failing to recognize complexity of nutrition-education and the impact of the educator on knowledge-transfer. Current Diabetes Canada Clinical Practice Guidelines (2018) recommend low glycemic index (GI) food and drink for glycemic control. These recommendations are based upon decades of high-quality evidence supporting GI-utility in type 1, type 2 and gestational diabetes (GD). Nevertheless, evidence suggests that nutrition educators are not including GI-education in practice. Since 2007, efforts have been made to explore these findings, addressing feedback from stakeholders, and applying an integrative approach to dissemination. This has resulted in development and dissemination of several education materials (with Diabetes Canada and Dietitians of Canada). The majority of Canadian data available on GI-utility is based on Ontario-based patients attending in-person appointments led by seasoned Dietitians/ Diabetes Educators. Clinicians, trainees, and patients at the IWK Health Centre, Nova Scotia, are interested in (local) effectiveness of these materials. Their patients, blended treatment for GD (in-person and online), provide an opportunity to evaluate previously developed GI intervention(s), in an Atlantic Canadian context. This talk will provide an overview of the work done since 2007, providing insight into contemporary integrative GI-KT efforts.

Methods:

Design: Randomized control trial (RCT-NCT04272840). 60 participants, receiving standard care education for GD, will be randomly allocated to a control or intervention group (low GI). The intervention (and associated evaluation) was developed using a four-step pedagogical model, called Kirkpatrick Model. Outcomes include: 1) satisfaction, 2) knowledge uptake, 3) behaviour change (primary outcome) and 4) glycemic control and was the basis of the glycemic index questionnaire ([GIQ©](#)). The GIQ, three-day diet record, and self-monitored blood glucose are collected from participants pre- and post- intervention (repeated measures). Prior to collection of these data, feedback has been collected from Dietitians providing standard care (mixed-form questionnaire) and integrated into the intervention. Currently, feedback from recent East Asian immigrant patients (mixed form questionnaire) are also being collected; a growing patient population at IWK.

Results:

Dietitians (n = 4) were satisfied with the intervention and reported learning novel information and counseling approaches when reviewing the resources. The RCT was active for three months before pandemic shutdown (March 2020). Reactivation occurred January 2021. To date, 19 letters of information and 2 consents have been signed. We predict, the intervention will satisfy GD participants, increase their GI-knowledge, and support a statistically and clinically significant decrease in diet-GI within and between groups.

Conclusions:

Adaptation of materials for Atlantic Canadians represents a necessary step in the knowledge-to-action cycle for GI-KT.

Initiating a Science of Storytelling: A Framework for Using Stories in Knowledge Translation Interventions

Brooks S, Zimmermann G, Thomson D, Lang M, Scott S, Wilkes G, Klassen T, and Hartling L

Presenter:

Stephanie Brooks

Institution:

University of Alberta

Background:

Stories are ubiquitous, have been used for communication and entertainment for thousands of years, engage us by evoking emotion, and can compel us to think or behave differently. Using story-based methods in knowledge translation interventions capitalizes on our affinity for stories by presenting evidence-based health information in context-rich, accessible, entertaining and memorable ways. Indeed, recent systematic reviews have found that changing health-promoting behaviours using stories appears to be a promising option for knowledge translation (KT); however, there is little guidance to help determine how and when to use storytelling as a KT intervention. In response, we aimed to build a framework for using stories as KT interventions to assist researchers and practitioners in thoughtful planning and evaluation.

Methods:

We conducted a broad search of the literature, within parameters determined by the team, to identify studies that used storytelling as KT interventions across various disciplines (health research, education, policy development, anthropology, organizational development, technology research, and media studies). We extracted purposes, theories, models, mechanisms and outcomes from the articles and mapped the theoretical and practical considerations pulled from the literature onto the Medical Research Council guidance for complex interventions. This mapping exercise uncovered common considerations for storytelling in KT interventions, and thus comprised the basis of our storytelling framework development. Methodological experts helped refine and revise the drafted framework based on their expertise using stories in KT activities and interventions. These team members helped to assess and deepen the completeness, accuracy, nuance, and usability of the storytelling framework.

Results:

Storytelling is an attractive KT method but is a complex approach that, to be high quality and successful, requires thoughtful planning and full consideration of multiple intervention components. We designed our framework to make explicit the considerations required to identify when storytelling might be appropriate for the intervention goals and audience, and subsequently, how to build and test the storytelling intervention. In turn, the framework can help guide decisions around whether storytelling is appropriate and/or feasible in a given set of circumstances.

Conclusions:

We built this framework through a complex intervention lens to: 1) help people consider the appropriateness of stories for their intervention goals; and 2) rigorously plan and evaluate their storytelling interventions. Providing such a framework creates the opportunity to embed theory when using storytelling as a complex KT intervention. In this presentation we will walk through the framework components with storytelling examples.

Allied Health—Translating Research into Practice (AH-TRIP): A Multidisciplinary Initiative to Improve Clinician-Led Knowledge Translation.

Cameron AE, Campbell KL, Barrimore SE, Wilkinson SA, Barnes R, McBride LJ, Young AM, and Hickman IJ

Presenter:

Dr. Ashley Cameron

Institution:

Clinical Support Services, Metro South Hospital and Health Service, and Department of Speech Pathology, Princess Alexandra Hospital

Background:

Knowledge production, adoption, and building research capacity is central to the healthcare workforce; however, there is a paucity of evidence around how best to support health professionals (knowledge end-users) to undertake knowledge translation (KT). The Allied Health—Translating Research into Practice (AH-TRIP) initiative aims to embed KT within the usual business of hospital health services through capacity building of frontline AH workforce using education, support and recognition. This abstract aims to describe the development of the AH-TRIP initiative and presents evaluation data from the first year of the program.

Methods:

The AH-TRIP initiative was designed by clinician-researchers in Queensland, Australia, based on evidence from the literature, local research and KT capacity building experience, and a needs assessment with end-users (AH professionals working in hospitals across practice settings). This needs assessment informed AH-TRIP methodologies and highlighted low confidence in KT, high interest in gaining knowledge and support, and a need for a multi-modal program to meet diverse needs across a large geographical area. The AH-TRIP initiative was trialled in 2019 and consisted of four pillars: (1) KT education (including online accessible resources); (2) KT project support; (3) AH-TRIP clinician champions; (4) showcase and recognition. The AH-TRIP initiative was trialled in two metropolitan health service districts (all AH disciplines) and statewide in a single discipline (Dietetics). The RE-AIM framework underpins the program evaluation, with early evaluation data available for reach, adoption and implementation.

Results:

We developed a low-cost, multi-modal initiative, with the following outputs: (1) online training program of 27 webinars and 13 case studies across the KT action process (foundation/introductory content; identify a clinical problem; evidence to support change; planning for change; implementation; evaluating the change; and sustainability) in collaboration with multidisciplinary, multi-agency, international contributors. The website has achieved over 12,000 unique page views between March to December; (2) a group telementoring strategy with KT experts was established to engage four clinical teams (n= 9 AH professionals) in diverse geographical locations, with participants reporting improvement in confidence and skills to plan and deliver projects; (3) clinician champions (n=190) enlisted across 14 hospitals and health services to facilitate capacity building and sustainability of AH-TRIP within local teams; (4) showcase and recognition of 12 KT projects at a statewide forum, reaching >295 AH professionals from >50 sites. Eighty-one percent of audience members reported it stimulated critical reflection of their current practice, and 71% reported increased understanding of KT. AH-TRIP has been embedded in statewide and local AH professional, operational and research strategic plans. Success factors included significant stakeholder engagement, visionary leadership and dynamic teams to support the delivery of this innovative initiative.

Conclusion:

The AH-TRIP initiative addresses clinicians' demand for KT training and offers a unique opportunity to improve health systems and facilitate organisational capacity building. As AH-TRIP evolves, the challenge will be to upscale sustainably in a way that maintains robust competencies while addressing local needs in the context of diverse and complex health systems.

Identifying Feasibility Factors to Delivering Cycling Interventions During Hemodialysis: A Theoretical Domains Framework-Informed Qualitative Study

Castillo G, Presseau J, Wilson M, Cook C, Feld B, Garg AX, McIntyre C, Molnar AO, Hogeterp B, Thornley M, Thompson S, MacRae JM, and Bohm C

Presenter:

Gisell Castillo

Institution:

Ottawa Hospital Research Institute

Background:

Exercising while on hemodialysis (intradialytic exercise, IDE) is associated with positive health outcomes for people living with end stage kidney disease including improved functional status, aerobic capacity, and dialysis clearance. Though there is growing evidence supporting the benefits of IDE, larger-scale trials are needed to demonstrate feasibility and inform clinical practice. Few studies have comprehensively assessed barriers and enablers across multiple sites or have addressed how identified barriers and enablers can be addressed using strategies rooted in behaviour change theory. We aimed to identify barriers and enablers to taking part in, and supporting, an intradialytic cycling program, and to develop fit for purpose strategies to optimise the design and delivery of a planned Ontario-wide cluster trial of IDE.

Methods:

Guided by the Theoretical Domains Framework, we used semi-structured interviews to gain an in-depth understanding of the factors that may enable or impede IDE from the perspective of unit staff (e.g., nurses, administrators, nephrologists, exercise specialists) and adults on hemodialysis. Data were analyzed using a directed content analysis. We then identified possible strategies for addressing barriers, informed by the Behaviour Change Techniques taxonomy, and developed a feasibility assessment tool to enable trialists to identify potential ways to optimise IDE delivery across units in future trials.

Results:

We conducted 43 interviews (September 2018 to October 2019) across twelve Ontario hospitals. We interviewed 17 people who were on hemodialysis and 26 health care providers, including nurses (n = 10), nephrologists (n = 6), clinical managers and administrators (n = 5), exercise specialists (n = 3) and personal support workers and technicians (n = 2).

We identified eight relevant theoretical domains (knowledge, skills, beliefs about consequences, beliefs about capabilities, environmental context and resources, goals, social/professional role and identity, and social influences) represented by three overarching categories: 1) Knowledge, skills and expectations: this category represented concerns over staff lacking expertise to oversee exercise, potential exercise risks, minimal patient interest, uncertainty regarding expected benefits, and knowledge gaps regarding exercise eligibility; 2) Human, material and logistical resources: this category captured concerns over staff workload, the belief that exercise professionals should supervise IDE, and challenges related to space constraints, access to equipment, and scheduling conflicts; 3) Social dynamics of the unit: this category described how local champions and patient stories were thought to contribute to IDE sustainability.

We developed a list of actionable solutions by mapping the identified barriers and enablers to IDE to established behavior change techniques. To facilitate IDE delivery in diverse settings, we developed a feasibility checklist of 47 questions identifying key factors to be addressed prior to launching IDE programs.

Conclusions:

Barriers that may seem insurmountable at face value may be modifiable when associated factors influencing behaviour change are considered. This study describes a first attempt at generating evidence-based solutions to identified barriers and enablers to IDE. The developed strategies and feasibility checklist may help recruit and support units, staff, and patients and address key challenges to the delivery of IDE in diverse clinical and research settings.

Developing a Decision Aid to Empower Patients and Clinicians to Share Decisions Around A New Asthma Paradigm

Gagné M, Boulet LP, FitzGerald JM, Lauzier A, Grill A, O'Byrne P, and Gupta S

Presenter:

Dr. Myriam Gagné

Institution:

St. Michael's Hospital

Background:

Daily inhaled corticosteroids (ICS) have been the standard of care for asthma for decades but remain underused in real-world practice, partly due to steroid aversion and suboptimal communication between patients and providers. Recently, four seminal trials have led to a major change in the asthma treatment paradigm, showing that as-needed ICS-formoterol carries a similar benefit to daily ICS therapy for reduction of severe asthma exacerbations. While as-needed ICS-formoterol is additionally associated with >80% reduced cumulative ICS exposure (vs. daily ICS), it also comes with a cost of increased day-to-day asthma symptoms. Given these pros and cons that directly impact the patient, it has become even more critical to gauge patient preferences in choosing the best treatment for mild asthma.

Objective:

We aimed to design a patient decision aid (DA) to help asthma patients and their primary care providers to discuss first-line mild asthma medication options in order to mutually agree upon an evidence- and preference-based decision regarding asthma therapy.

Methods:

Following the International Patient Decision Aid Standards, we assembled a steering committee comprising of clinical, knowledge translation, and DA experts, and primary care and patient representatives to determine the index decision targeted by the DA and which options and outcomes to present in the DA (the latter based on a literature review). We then worked with a graphic designer to format a paper-based prototype of the DA (based on the Ottawa Personal Decision Guide). To optimize DA content and format, we plan to embark upon a rapid-cycle design process. This process entails: (1) DA acceptability, usability, and content testing in sequential rounds, each comprised of one focus group with 3 to 5 asthma patients and 1 interview with a primary care physician; (2) qualitative analysis of focus group and interview findings after each round; (3) corresponding modifications to the DA; and (4) re-testing of the modified DA in the next round. This process continues until no new critical acceptability-, usability-, and content-related issues emerge (i.e. stopping criteria reached). A final summative qualitative content analysis will be performed to determine overall user preferences.

Results:

The paper-based DA was designed for patients having asthma symptoms 2 or more times per month, with the following index decision: "Which asthma medication should you take to best manage your asthma?" Medication options included: (a) as-needed rescue medication only (given observational studies showing that this is what many patients do, despite recommendations for ICS); (b) as-needed ICS-formoterol combination; and (c) daily ICS + as-needed rescue medication. Clinical outcomes included: weeks with well-controlled asthma, rate of severe exacerbations, lung function, airway inflammation, and cumulative ICS exposure. The rapid-cycle design process is currently underway; results will be presented at the meeting.

Conclusion:

We are co-designing a user-centered DA prototype to assist patients and primary care providers in sharing decisions about medications for mild asthma. Next, we will embed this DA into the Electronic Asthma Management System (eAMS) in order to address known barriers to shared decision-making and DA uptake, and then evaluate its real-world uptake and impact.

Using Behavioural Theory and Shared Decision-Making to Understand Clinical Trial Recruitment: Interviews with Recruiters

Hudek N, Lavin Venegas C, Presseau J, Carroll K, Rodger M, and Brehaut J

Presenter:

Dr. Natasha Hudek

Institution:

Clinical Epidemiology Program, Ottawa Hospital Research Institute

Background:

Clinical trial recruitment is a continuing challenge for medical researchers. Previous efforts to improve study recruitment have rarely been informed by theories of human decision making and behaviour change. We investigate the trial recruitment strategies reported by study recruiters, guided by two influential frameworks: shared decision-making (SDM) and the Theoretical Domains Framework (TDF).

Methods:

We interviewed nine study recruiters from a multi-site, open-label pilot study assessing the feasibility of a large-scale randomized trial. Recruiters were primarily nurses or masters-level research assistants with a range of 3 to 30 years of experience. The semi-structured interviews included icebreaker questions, questions about the typical recruitment encounter, questions concerning the main components of SDM (e.g. verifying understanding, directive vs. non-directive style), and questions investigating the barriers to and drivers of recruitment, based on the TDF. We used directed content analysis to code quotations into TDF domains, followed by inductive thematic analysis to code quotations into sub-themes within domains and overarching themes across TDF domains. Responses to questions related to SDM were aggregated according to level of endorsement, and informed the thematic analysis.

Results:

The inductive analysis revealed 28 subthemes across 11 domains. The subthemes were organized into six overarching themes: coordinating between people, providing guidance to recruiters about challenges, providing resources to recruiters, optimizing study flow, guiding the recruitment decision, and emphasizing the benefits to participation. The SDM analysis revealed recruiters were able to view recruitment interactions as successful even when enrollment did not proceed, and most recruiters took a non-directive (i.e. providing patients with balanced information on available options) or mixed approach over a directive approach (i.e. focus on enrolling patient in study). Most of the core SDM constructs were frequently endorsed.

Conclusions:

Identified subthemes can be linked to TDF domains for which effective behaviour change interventions are known, yielding interventions that can be evaluated as to whether they improve recruitment. Despite having no formal training in shared decision making, study recruiters reported practices consistent with many elements of SDM. The development of SDM training materials specific to trial recruitment could improve the informed decision-making process for patients.

Using a Patient-Oriented Approach to Advance Intersectionality in Knowledge Translation

Januwalla A and Pietra BL

Presenter:

Alia Januwalla

Institution:

Fraser Health Authority

Background:

The Canadian Strategy for Patient-Oriented Research (SPOR) is a national strategy aimed at involving proactive patient partners in shaping health research and the healthcare system. As a regional arm of the BC SUPPORT Unit, the Fraser Centre supports SPOR by facilitating partnerships between patient partners, researchers, clinicians, and health decision-makers.

The aim of patient-oriented research (POR) aligns with the objective of using an intersectional approach; to promote a quality of life that is tied to patient-identified outcomes. Intersectionality requires understanding social and political contexts, and recognizing that an individual may have unique experiences based on the intersection of their various identities. A criticism of POR is that one or two patient or caregiver partners on a given research team may further marginalize hardly-reached voices in a population that may already be experiencing marginalization as a whole. We argue that POR and KT approaches with an intersectional lens has particular value in identifying and validating the complexity of unique patient experiences, and effective implementation and dissemination strategies that can be used to mitigate them.

Methods:

We supported research teams in using POR methods with an intersectional lens, such as convening multi-disciplinary teams including multiple patients with diverse perspectives to co-build and carry out research together.

Results:

We will present compelling examples of projects that have adopted a POR approach with an intersectional lens to strengthen their methods, relevancy, and application. These projects were primarily focused on bringing to light the perspectives of hardly-reached populations within structurally marginalized groups. Examples include:

1. Researchers and patient partners in Surrey, BC formed a collective to improve South Asian community engagement in health research through priority setting activities. The innovative methods of engagement will inform future direction of health research and KT for a population that has been historically underserved and underrepresented in this region.
2. Fraser Health service providers are using a POR approach to understand the experiences of people who use opioids in accessing virtual Opioid Agonist Therapy (OAT) services during COVID-19. Decolonizing trauma and resiliency informed practices are embedded into the entire research process to enhance safety, collaboration, choice and a strengths-based engagement with team members and study participants to reduce the effects of historical and current trauma exposure in order to facilitate health system improvement.
3. Fraser Health Authority is currently developing and implementing a Regional Strategy for Gender Inclusivity, alongside self-identified gender diverse patient and employee partners. Particular emphasis has been made to recruit Indigenous and racialized members, who often face unique barriers to feeling safe in their work environments and/or in accessing health services.

Conclusion:

We argue that the processes of POR (engaging with a patient partner, identifying roles and responsibilities, co-building and shared decision-making) prompts best practices of reflexivity amongst the research team, to consider their own positionality and how that shapes KT processes. Involving multiple diverse patient partners as integral and equal members of the research team fosters a unique focus on the needs that matter to the individual, and allows for a KT strategy that appropriately addresses the unique perspectives they represent.

Incorporating Intersectionality in Implementation Science and Practice: Development and Usability Testing of Tools to Facilitate Uptake in Implementation Intervention Planning

Sibley KM, Kasperavicius D, Braganca Rodrigues I, Giangregorio L, Gibbs JC, Graham ID, Hoens AM, Kelly C, Lalonde D, Lee T, Moore JE, Ponzano M, Presseau J, Rashid S, and Straus SE

Presenter:

Dr. Katie Sibley

Institution:

Department of Community Health Sciences, University of Manitoba

Background:

Implementation science has been criticized for neglecting contextual and social considerations that influence health equity. Intersectionality is a concept introduced by Black feminist scholars that can advance equity considerations. Intersectionality emphasizes that human experience is shaped by a combination of social categories (e.g., ethnicity, gender), embedded in systemic power structures. Using an intersectional approach offers a way to improve the applicability of implementation interventions, however, intersectionality is critiqued for being difficult to apply. The objective of this study was to develop and conduct usability testing of tools to support implementation intervention developers in applying intersectionality in three key phases of implementation: identifying the gap; assessing barriers to knowledge use, and selecting, tailoring, and implementing interventions.

Methods:

We used an integrated knowledge translation approach throughout the project. We assembled a development committee to develop draft tools for each of the three key implementation phases. The development committee included scholars trained in intersectionality and adult education, implementation researchers and practitioners, and health research funders. We used a mixed methods approach to revise and test the usability of each draft tool, which included semi-structured qualitative interviews with implementation intervention developers using the think-aloud method and completion of the System Usability Scale (SUS). We calculated an average summary score for each draft tool. We coded interview data using the framework method focusing on actionable feedback. The development committee used the actionable feedback to revise tools. The final tools were formatted by a graphic designer and underwent a final review.

Results:

Nine people working in Canada joined the development committee. They drafted a primer on intersectionality and one tool for each of the three key implementation phases that included recommendations, activities, reflection prompts, and resources. Thirty-one people with experience developing implementation interventions from three countries participated in usability testing. Average SUS scores of the draft tools ranged between 60 and 78/ 100. Most participants reported an intention to use the tools. They wanted tools to be shorter, contain more visualizations, and use less jargon. They identified that the “select, tailor, and implement interventions” tool included an overwhelming volume of content. The development committee significantly revised this tool to focus on “selecting and tailoring interventions”, shortened and clarified all tools, and added two one-page summary documents. The final toolkit includes six documents.

Conclusions:

We developed and evaluated practical tools for to help embed intersectionality into implementation interventions. Future work should develop guidance for enhancing social justice in intersectionality-enhanced implementation, and exploring how to meaningfully center Indigenous considerations in an intersectional approach.

Indigenous Knowledge Translation in Action: Learning from Traditional and Community Wisdoms

Kyoon-Achan G

Presenter:

Dr. Grace Kyoon-Achan

Institution:

University of Manitoba

Background:

There is increasing awareness and respect of Indigenous ways of knowing in research. The research world is all about generating and applying knowledge to increase understanding, solve problems or enhance best practices. There is however a long-standing complexity between generating knowledge and applying that knowledge in timely and effective ways. Knowledge Translation (KT) is active in that middle space between knowledge and action, helping to move evidence into practice in the most efficient and effective ways possible. We share Indigenous KT philosophies and strategies.

Methods:

The knowledge being shared, has been gathered over fifteen years of working with various Indigenous groups nationally and internationally through a combination of observation, interaction and participatory engagement within Indigenous contexts. More recently being community-based participatory health and healthcare research with First Nations and Metis peoples in Manitoba.

Results:

Indigenous KT is a process that begins with establishing relevance, valuing particular knowledge sharing and experiencing processes, aiming for predetermined significance, applying meaningful knowledge gathering tools and organically applying evidence to resolve immediate or ongoing issues.

Conclusions:

Indigenous knowledge systems have inbuilt KT philosophies and strategies to facilitate quick and practical use of relevant information and knowledge to support community-based health and social well-being. Understanding Indigenous KT that is, how these philosophies and strategies are deployed in gathering and applying knowledge could increase success in data leverage, health promotion and social advancement.

Exercise and Physical Activity Interventions for People with Lower Limb Amputations: A Scoping Review

MacKay C, Lee L, Mendelsohn S, Kobylansky A, Dilkas S, Devlin M, Mayo A, and Hitzig SL

Presenter:

Dr. Crystal MacKay

Institution:

West Park Healthcare Centre

Background:

People with lower limb amputations (LLAs) living in the community have persistent challenges with mobility and have low levels of participation in physical activity (PA). Exercise and PA interventions have potential to improve quality of life and reduce cardiovascular risk factors in a growing population of Canadians with LLAs. The objective of this scoping review is to examine what is known about exercise and PA interventions delivered in outpatient or community-based settings for people with LLAs. We identified the types of research studies conducted; the characteristics of adults with LLAs included in studies; and characteristics of exercise/PA interventions and outcomes.

Methods:

The following databases were searched from inception: PsycINFO, Embase, CINAHL, Medline, SPORTDiscus, and the Cochrane Central Register Controlled Trials. Articles were included if they met the following criteria: PA and/or exercise interventions for people with major LLA (amputations above the ankle) who were ≥ 18 years of age and living in a community setting. Only English language studies were included. Two independent reviewers screened the articles for inclusion, and disagreements were resolved by consensus. The reviewers independently extracted the following data from the included articles: study design, sample characteristics, description and characteristics of the intervention, and study outcomes.

Results:

We retrieved 11,855 studies following removal of duplicates. After review of titles and abstracts, 115 full text articles were assessed and 42 articles were included in the study. Sixteen studies were randomized controlled trials (RCTs) (two papers reporting on the same trial), two studies with a non-amputee control group, 13 single group design studies with pre-test and post-test comparisons of outcomes, and 10 case studies. There were a total of 881 study participants across studies (range N=1-154). Of studies which reported sex, 71.2% of participants were males. The mean/median age was < 50 years in 19 studies, 50-65 years in 16 studies and > 65 years in 5 studies. The studies included people with LLA from multiple causes, most commonly trauma (n=28), dysvascular/infection (n=19) or cancer (n=11). Eighteen studies reported all or >50% of participants had transtibial amputations, 15 studies reported that all or >50% of participants had transfemoral amputations. Interventions commonly included strength training (19 studies), balance exercises (17 studies), and arm or leg ergometry (13 studies). While most studies reported promising results with some improvements in outcomes, there was considerable variation in the outcomes commonly assessed, which included aerobic capacity (12 studies), walking endurance (11 studies), gait parameters (16 studies), functional performance measures (12 studies), balance performance (nine studies), and strength (seven studies).

Conclusion:

This scoping review identified that exercise and PA interventions in community settings for people with LLA have not been widely studied, particularly using experimental study designs. Studies were consistently limited by small sample sizes. There was heterogeneity across studies in the patient populations, intervention characteristics, and outcome measures. To inform clinical practice, additional research is needed to enhance our understanding of the effectiveness of specific exercise/PA interventions for people with LLA.

N=487 (max 500)

Parent Perspectives on a Knowledge Translation Resource for Pediatric Vaccination Pain Management

MacKenzie NE, Tutelman PR, Chambers CT, Parker JA, Barwick M, Birnie KA, Boerner KE, Granikov V, MacDonald N, , McMurtry CM, Pluye P, and Taddio A

Presenter:

Nicole MacKenzie

Institution:

Department of Psychology and Neuroscience, Dalhousie University

Background:

Pain associated with vaccination is a significant barrier to parents' adherence to their child's vaccination schedule. Despite decades' worth of research on best practices for managing children's vaccination pain, including clinical practice guidelines, there is both a lack of knowledge and poor uptake of evidence by parents and health care providers (HCPs) to manage children's vaccination pain. Given parents' low awareness and uptake of this information, KT interventions are needed to address this gap. A two-page KT resource, based on a vaccination pain management clinical practice guideline, was developed in collaboration with Immunize Canada. The purpose of the resource was to share evidence-based vaccination pain management strategies directly with parents in an accessible way via a national parenting magazine. The aim of this study was to evaluate parents' perspectives on the acceptability, utility, and design of the resource to help guide future parent-directed KT interventions and resources.

Methods:

Using a qualitative descriptive approach, parents (of children 0-17 years of age) who had participated in a larger study, focused on parents' use of a KT resource for vaccination pain management, took part in this study. Parents reviewed an electronic copy of the KT resource prior to their child's upcoming vaccination. At follow up, approximately 6 months later, all children had been vaccinated and semi-structured interviews were conducted with parents to gain an in-depth understanding of their impressions of the resource. Interviews were recorded, transcribed, and analyzed with Braun and Clarke's reflexive thematic analysis using an inductive approach.

Results:

A total of 20 parents (95% mothers) participated. Parents were generally positive in their evaluation of the KT resource and also identified areas for improvement. Parents' perspectives were captured by 3 main themes, within which they identified both strengths and limitations: (1) The relevance of content in the resource (e.g., the applicability and practicality of the pain management information provided); (2) The layout and design of the resource (e.g., the visual organization and presentation of the information); and (3) The format of information delivery (e.g., parents' preferred ways of accessing the resource and the timing of access to the information, relative to the child's upcoming vaccination).

Conclusions:

Parents generally found this resource to be acceptable and useful in terms of the content, layout, and delivery of the information. However, parents also identified areas for improvement in the resource, such as the timing of access to the information and physical availability of the resource. These results improve our understanding of aspects that are important to include, or account for, in parent-directed KT resources to promote ease of understanding and use. Future research should consider the impact of this type of resource on parents' use of vaccination pain management strategies and children's related vaccination pain outcomes and vaccination compliance.

Aligning Implementation Science with Practice by Co-designing an Evaluation Tool

McAlpine L, Ramjohn C, Faught E, Popeski N, Keogh E, and Zimmermann G

Presenter:

Laura McAlpine

Institution:

University of Alberta

Background:

The Alberta SPOR SUPPORT Unit Knowledge Translation Platform (AbSPORU KT Platform) works with health science researchers and practitioners to incorporate implementation science principles into research and quality improvement initiatives taking place in Alberta's health care system. Incorporating implementation evaluation metrics into evaluation plans are of particular interest to those seeking implementation support because of the recognized importance of capturing successful implementation, as well as ways to improve ongoing implementation efforts.

A commonly used framework to evaluate health innovations in Alberta is The Alberta Quality Matrix for Health (AQMh) developed by the Health Quality Council of Alberta. The matrix includes six dimensions of health service quality adapted to the Alberta health care context: acceptability, accessibility, appropriateness, effectiveness, efficiency, and safety. Several of these dimensions overlap with Proctor et al.'s recommended taxonomy of implementation outcomes: acceptability, adoption, appropriateness, feasibility, fidelity, implementation cost, penetration, and sustainability.

To help bridge these approaches, the KT Platform has brought together a team of intended users, content experts, and health system partners to co-design a user-friendly tool to help people incorporate implementation outcomes, such as those recommended by Proctor et al., into evaluations based on the six dimensions of health service quality captured in the AQMH.

Methods:

To create this tool, our team followed the Successive Approximation Model from the field of instructional design, which outlines an iterative, participatory design and development process that focuses on end users' experiences, engagement, and motivation. All stages of this co-design process were shaped by and carried out in collaboration with team members as the project unfolded:

- Set the Stage - Determine end users' needs, gaps, and collect relevant background information.
- Savvy Start Feedback Loops - Using the information gathered in Set the Stage, bring together the co-design team to identify the problem, other potential users, their contexts, brainstorm solutions, carry out rapid prototyping and feedback loops, and select one prototype for further development.
- Prototype Development and Testing – Build the selected prototype in an iterative manner based on ongoing user testing and feedback.
- Evaluate - Carry out an ongoing evaluation to ensure both the co-design process and final product meet team members' and end users' expectations.

Results:

The co-design activities outlined here have enabled our team to develop a web-based, interactive evaluation tool prototype that helps users incorporate implementation outcomes into AQMH-based evaluations. To date, 16 individuals have participated in usability and feedback surveys. This feedback has been used to make continuous improvements to the prototype. Interviews are now underway with a subset of usability participants to better understand the relevance of the tool to their projects and how they might incorporate the tool into their day-to-day work. Additionally, the ongoing evaluation will enable the KT Platform to learn about effective co-design and development processes for producing tools like this one, with the goal of informing future projects.

Conclusions:

The development of this tool will enable our Platform to address a need identified by health science researchers and practitioners seeking implementation evaluation support.

How is Routinely-Collected Health Data Used to Investigate the Impact of Automatic Cognitive Processes on Healthcare Professional Behaviour? A Scoping Review

McCleary N, Presseau J, McCudden C, Semchishen S, Potthoff S, Carroll K, Hudek N, Colquhoun H, and Brehaut J

Presenter:

Dr. Nicola McCleary

Institution:

Ottawa Hospital Research Institute

Background:

KT interventions often focus on healthcare professionals' deliberative, analytical thinking as a route to achieving practice change, e.g. educational meetings that provide instruction but leave attendees to integrate the lessons into practice. Such deliberative mechanisms are clearly an important element of practice change. However, human behaviour is guided by two cognitive systems: one involving deliberative processes, the other involving automatic processes (e.g. habits, cognitive heuristics). Automatic processes are under-considered in theoretical frameworks commonly used to explore barriers to change. These processes can be difficult to study, since they are not easily observed or self-reported on. Routinely-collected health data can provide a new window into these processes. Such data provide a means to explore processes that are common across all human decision makers and may have substantial impact on real-world clinical behaviour, through investigation across large samples. We are conducting a scoping review to map the ways in which routine data has been used to investigate the impact of automatic processes on clinical practice.

Methods:

We ran electronic searches in MEDLINE, EMBASE, CINAHL, and PsycINFO. Records are being screened by two independent reviewers. Data will be extracted from included articles relating to clinical contexts (setting, provider and patient group, clinical behaviours investigated), methods used (data sources, steps in analysis procedure), automatic processes investigated, outcomes, and study results. We will compile a detailed descriptive and narrative summary of included studies, informed by qualitative content analysis techniques.

Results:

The searches identified 17,696 unique records. Title/abstract screening is nearing completion. Relevant studies identified so far investigated the availability heuristic (the tendency to assess the likelihood of an event based on the ease with which previous occurrences come to mind), e.g., using billing data to show that physicians were less likely to appropriately prescribe warfarin after another patient had a major adverse bleeding event associated with warfarin (a rare but salient and easily remembered event). Others have investigated the impact of decision fatigue (depletion of abilities to engage in reflective thinking over time, which leads to reliance on automatic processes), e.g., using electronic health record data to show that the likelihood of family physicians prescribing opioids increased as the workday progressed, consistent with cognitive fatigue limiting capacity to make effortful decisions around reducing opioid therapy. Finally, studies have focused on the representativeness heuristic (the tendency to classify an event into a category based on how typical it is of the category), e.g., a study of triage decisions found that despite transfer to a trauma centre being appropriate for all patients studied, patients judged as not typically representative were less likely to be transferred.

Conclusions:

This scoping review will demonstrate ways in which routine data has been used to test hypotheses related to automatic decision-making processes by healthcare professionals, which will support the generation of new hypotheses and help guide the prioritization of next steps for future research. Further work may ultimately support the development of novel or adapted KT interventions to target these processes as routes to improving quality of care.

Leveraging Technology to Build a Comprehensive Infrastructure to Support the Implementation of Evidence-Based Practices in Health Care Systems

Minian N, Dragonetti R, and Selby P

Presenter:

Dr. Nadia Minian

Institution:

Centre for Addiction and Mental Health

Background:

Despite considerable investments in health research in Ontario, a significant gap remains between evidence and health care policy and practice, costing millions to the health care system, and to the wellbeing of Ontarians. Translating research evidence into programmatic change has proved challenging on many levels, including structural, organizational, and temporal. Learning health systems have been posed as a possible solution however, the evidence around how to effectively promote and facilitate this process is still relatively limited.

Methods:

The Nicotine Dependence Services at CAMH has leveraged technology to create a learning health system based on Dr. Friedman's three components: afferent, efferent and scale and the Interactive Systems Framework for Dissemination and Implementation. Specifically it has:

1. Created synthesis of scientific knowledge such as:
 - a. Built and evaluated computerized clinical decision support system that guides practitioners into providing evidence based interventions by following clinical guidelines.
 - b. Built a platform that allows for collaborative care to be provided
2. Built capacity in the system by:
 - a. Having an online program in evidence-based tobacco dependence treatment that is useful across disciplines and diverse health service settings
 - b. Creating a virtual collaborative care model where information and education can be shared with healthcare providers, clients and their families
3. Delivered our interventions by:
 - a. Sharing a portal that our partners working in primary care sites and addiction agencies across Ontario can use to provide smoking cessation treatment directly to Ontario smokers in their communities.
 - b. Creating a web-based virtual platform to support a virtual collaborative care model that allowed health coaches to provide treatment recommendations to youth with early psychosis to address smoking, physical activity and nutrition to decrease their cardiometabolic risk factors.

Results:

Over 4,980 practitioners from 6 provinces, over 15 disciplines, and 812 organizations have been trained in tobacco cessation since the projects initiation in 2006. One hundred and sixty-one Family Health Teams (FHTs) (87%); 56 Community Health Centers (CHCs) (76%); 68 Addiction Agencies (34%); and 32 Public Health Units (PHUs) (100%) have partnered with the NDS and have implemented care pathways for smokers in their practice. In addition we have tested the feasibility of engaging patients and healthcare providers to use a virtual collaborative care model which allows us to reach people who otherwise would not have access to specialists and treatment resources.

Conclusion:

In this workshop we will share our experience building a learning health system that:

1. Builds on a comprehensive knowledge translation framework (ISF)
2. Leverages technology (CDSS, virtual platform)
3. Ensures that data is collected, analyzed (afferent phase) and that analysis are shared back into the system, solutions to change practices are tested (efferent phase), and promising results are scaled up

This system has been successful in treating over 253,000 smokers, as well as testing the feasibility of a virtual care team for a population that has been described as hard to reach and treat.

A Program to Advance the Science and Practice of KT in a Local Hospital Network: Results of a Three-Year Pilot

Spithoff K, Corovic M, Sanderson K, Brouwers MC, Scott T, and Schwalm JD

Presenter:

Karen Spithoff

Institution:

McMaster University

Background:

Hamilton Health Sciences (HHS) is a local hospital network that is world-renowned for healthcare research, with a strong focus on evidence-based practice and continuous quality improvement. However, many gaps remain between what is known from research evidence and what is done in practice. HHS established a program to optimize the use of clinical and knowledge translation (KT) research to address evidence-practice gaps and health-related challenges at HHS hospitals and improve patient care.

Methods:

The Centre for Evidence-Based Implementation (CEBI) (www.hhscebi.ca) was initiated in 2016, with initial funding provided by HHS for a three-year pilot phase. The program comprises a scientific director, a program manager, and two project coordinators. An advisory committee including HHS administrative and clinical leaders and researchers provided advice regarding CEBI's strategic direction and project prioritization. Core activities included actively participating in HHS-initiated implementation and quality improvement projects, providing KT consultation, and providing training in KT science and practice for HHS leaders, physicians and staff. Key aspects of implementation for which CEBI provided assistance included project planning, barrier and facilitator assessment, selection and design of appropriate implementation strategies, evaluation, and sustainability planning. Projects ranged in scope from single unit projects to HHS-wide initiatives. CEBI worked alongside other HHS groups including: quality and value improvement, patient experience and safety, health information technology services, the health sciences library, and communications.

Results:

During the three-year pilot phase, CEBI actively contributed to five core projects, including projects intended to reduce patient violence towards hospital staff, reduce harms associated with procedural sedation, decrease the incidence of hospital-acquired infections, improve rehabilitation of critically ill children, and improve patient safety related to cardiac investigations. Consultation services were provided to multiple project teams and forty-nine participants attended CEBI-led KT training sessions. Informal feedback from HHS stakeholders about CEBI's involvement in HHS projects was positive. Key challenges included building a culture that values implementation based on best evidence from KT science, project delays due to resource limitations and competing priorities of clinical teams, limitations of data to measure clinical outcomes, and difficulty in measuring the direct impact of CEBI's contribution to projects. Changes to CEBI's mandate and funding model beyond the pilot phase is resulting in a transition from assistance with hospital-led quality improvement projects to implementation of impactful HHS-led research findings in the HHS community.

Conclusions:

The CEBI program can serve as a model for similar programs in other hospital networks. Positive results of the program's three-year pilot phase suggest that a hospital network-funded program to assist with evidence-based implementation and quality improvement projects, to provide consultation from a KT perspective, and to build KT capacity among hospital clinicians and staff, is feasible and effective for advancing practice that is based on the best available clinical and KT research evidence. As the CEBI program continues and evolves, it seeks to build linkages with similar programs across Canada to identify opportunities for collaboration and shared learning.

Evidence Syntheses for Assessing the Health Impacts of Climate Change: The Key Role of Developing Search Strategies

Thomson D, Dennett L, Noga A, and Sebastianski M

Presenter:

Denise Thomson

Institution:

University of Alberta

Background:

Climate change has been described as the greatest health threat of the 21st century. Adaptation involves adjusting to the current and predicted effects of climate change, to reduce vulnerability to harmful effects. Strategies for adaptation can have both direct and indirect health benefits. However, research to date includes limited recognition of health impacts and limited study incorporating a health perspective. Attributing health outcomes to adaptation interventions can be challenging for many reasons. Evidence synthesis collating data on the effectiveness of adaptation interventions is therefore of strong interest to the health community and the public at large. Effective search strategies are a cornerstone of high-quality syntheses so appropriate methods are crucial.

The objective of this presentation is to present the challenges in creating a search strategy for a scoping review to evaluate the effectiveness of climate change adaptation measures in creating health impacts.

Methods:

The primary research question is, 'Globally, what adaptation measures have been effective in reducing the negative impacts of climate change on human health?' We designed search strategies for OVID Medline, OVID Embase, and Web of Science, as well as for numerous grey literature sources, EBSCO Open Dissertations and Google Scholar.

Results:

Numerous iterations of the search strategy were required for this scoping review. Challenges included:

- developing a working definition and list of search terms to adequately cover the broad concept of 'health impacts';
- incorporating search terms for a wide range of study designs (not just clinical studies) that are measuring effectiveness of adaptation initiatives;
- encompassing the wide range of activities that can be considered as adaptation initiatives with direct or indirect health co-benefits;
- capturing studies that are relevant but that are not explicitly described as being related to climate change;
- teasing out health benefits from other social, economic and/or environmental benefits.

Conclusions:

The impacts of climate change will be more deeply felt around the world in the coming decades, so it is essential to establish what is effective for protecting human health. Relevant interventions are planned, delivered and implemented in a highly complex space, given that the long-term impacts of climate change are still unknown and the huge variability of the social and economic systems in which the interventions are unfolding.

Developing high-quality evidence syntheses about the health impacts of climate change will be an important contribution to global adaptation planning. Well-designed search strategies are a fundamental component of this work, and the complexities of designing them must be thoroughly explored.

Scoping Reviews on Climate-Health Topics: Recommendations for Methods Development

Thomson D, Hayes K, Dennett L, and Newton AS

Presenter:

Denise Thomson

Institution:

University of Alberta

Background:

Climate change has been described as the greatest global health threat of the 21st century. Direct impacts on human health will include changing concentrations of particulate matter and aeroallergens, or changes in the geographic range or seasonality of infectious diseases. Indirect impacts will include increased stress on existing health system weaknesses and disproportionate impacts on marginalized and vulnerable populations. Due to the complexity of this area, relevant evidence is complex, heterogeneous and potentially unbounded.

Scoping reviews of climate-health topics can be used to develop a broad sense of literature relevant to a research question, and determine patterns and trends. In recent years, several scoping reviews have been published on the health impacts of climate change and extreme weather events. However, there are limitations to available methodological guidelines for conducting scoping reviews in climate-health topics; specific recommendations would improve the rigour and utility of reviews. This presentation will consider challenges to conducting scoping reviews of climate-health topics and present recommendations for future methods.

Methods:

We conducted a scoping review of scoping reviews on climate-health topics. We extracted the research question or objective, the methods guidance the authors cited, and the definition (if any) of climate change that was used. We combined the findings from this review with the experience of authors on this team to make recommendations.

Results:

We identified several areas where further guidance would be useful, including:

Establishing definitions of key terms, including climate change and climate change adaptation, that are workable for evidence synthesis purposes. Climate change, and climate change adaptation, are not simple or straightforward topics. Many scoping reviews equate evidence on the health impacts of extreme weather events as being evidence of the health impacts of climate change itself; however, this approach may not adequately respond to the dynamic nature of climate change-related impacts over the coming years and decades.

Sources of evidence. Existing literature may not always be sufficient to answer particular questions, and scoping review teams may therefore need to find alternative sources, such as expert knowledge, input from members of relevant populations and Indigenous knowledge. Appropriate methods for incorporating this additional input into the scoping review are needed.

Balancing breadth and feasibility of what is included in the scoping review. The health impacts of climate change are, in many cases, not new, but rather differences in existing patterns of disease, exacerbations in pressures on health care systems, etc. This can mean that studies that are relevant to the research question of a scoping review may not be framed from a climate change perspective, and the scoping review will have to be designed to encompass literature from a wide range of disciplines. Review teams may have to consider how to deal with large quantities of citations for screening, and data for inclusion.

Conclusions:

Modifications to existing methodological guidelines for conducting scoping reviews are needed to improve the rigour and utility of reviews of climate-health topics.

Using the Theoretical Domains Framework and the Theoretical Framework of Acceptability to understand Gay, Bisexual, and Other Men Who Have Sex with Men's Willingness to Participate in a Plasma Donation Program.

Vesnaver E, Goldman M, Butler-Foster T, Gibson E, Palumbo A, Rosser A, MacPherson P, Hill N, O'Brien S, Lapierre D, Castillo G, Otis J, Devine D, Germain M, MacDonagh R, Randall T, Osbourne-Sorrell W, Clement-Thorne B, Al-Bakri TB, and Presseau J.

Presenter:

Dr. Elisabeth Vesnaver

Institution:

Ottawa Hospital Research Institute

Background:

Men who have had sex with a man in the previous three months are not eligible to donate blood or plasma in Canada. Canada is considering reducing restrictions to plasma donation by gay, bisexual, and other men who have sex with men (gbMSM) as an incremental step to redressing policies that are viewed as discriminatory by LGBT2Q+ communities. Such a change may be beneficial to addressing Canada's insufficient supply of domestically collected plasma. The present study is part of a larger project that aims to: 1) evaluate the acceptability and feasibility of new screening processes for plasma donation by gbMSM from the perspectives of gbMSM and donor centre staff; and 2) to co-develop strategies to address any barriers and enablers to donation and implementation should changes to eligibility for gbMSM be approved. The objective of the present study was to investigate how gbMSM's views on current and proposed plasma donation policies may affect their willingness to donate in the future.

Methods:

The study is rooted in an integrated knowledge translation approach and involves close collaboration with Canadian Blood Services, one of Canada's two national blood operators, ensuring the research activities remain aligned with and simultaneously inform progress made in changing donation policies over time. We also take a participatory research approach and have engaged a public involvement research group of seven gbMSM who are active partners in the research. This was a qualitative study focused in a medium-sized city that will be one of the sites for first implementation of new screening processes if approved. We invited gbMSM to participate in two consecutive semi-structured interviews to explore their views on blood and plasma donation policy, plasma donation, and the proposed Canadian plasma donation program for gbMSM. Interview transcripts were analysed thematically, guided by the Theoretical Domains Framework (TDF) and the Theoretical Framework of Acceptability (TFA).

Results:

Seventeen men identifying as gay, bisexual, or as having sex with men participated in 33 interviews. The proposed screening processes were viewed as discriminatory. Acceptability of the proposed program was a key environmental barrier to donation intention in this population. This was influenced by the perceived high opportunity costs of putting aside one's values of fair treatment for oneself and one's community and associated negative emotions in order to participate in the proposed program and donate plasma. Opportunities to lessen perception of the conflict between one's values of equity and one's desire to contribute through donation will be discussed.

Conclusions:

Findings highlight the blood ban in Canada as a unique and critical part of the context of donation behaviour among gbMSM. Combining the TDF and TFA enabled connections between beliefs and emotions about donation within the broader social and environmental context. This research will help inform the development of strategies to support possible implementation. The continued engagement of the blood operator and gbMSM communities in this research will ensure that the strategies developed are sensitive, appropriate and effective.

A Rapid Evidence Response Program: An Integrated KT Intervention to Inform Standards of Care

Wincentak J, Townley A, Provvidenza C, Maxwell J, Schwellnus H, Searl N, Kooy J, Danial A, and Kingsnorth S

Presenter:

Joanne Wincentak

Institution:

Holland Bloorview Kids Rehabilitation Hospital

Background:

There is a lack of evidence to guide clinical practice in pediatric rehabilitation that is optimally packaged, easily accessible, and relevant to childhood disability. Front-line clinicians also express a lack of confidence and time in finding, reviewing and synthesizing potentially relevant research. KT experts and clinicians need to partner to create evidence-informed products to inform standards of care that address complex clinical questions and support decision making.

Methods:

A rapid response program was developed to create evidence-informed KT products to facilitate standard of care development and decision-making. The program is based on the 'knowledge funnel' component of the knowledge to action cycle, rapid review principles, and an integrated KT approach. This funnel starts with identifying a problem, moving to knowledge inquiry, knowledge synthesis and finally KT product creation to present evidence in a concise and understandable format that is tailored to meet the needs of knowledge users (Graham et al., 2006). Rapid reviews are a type of knowledge synthesis in which the systematic review process is simplified to enhance timeliness of evidence production (Tricco et al., 2015). The program uses an integrated KT approach to bring together the diverse and complimentary expertise within our hospital. This includes Collaborative Practice (clinical decision makers) Evidence to Care (knowledge translation team) and the Clinical Working Group (front-line clinicians).

Results:

This process-oriented program includes the following steps: (i) prioritize a clinical topic based on selection criteria, (ii) establish an interprofessional working group, (iii) develop a preliminary review question, (iv) identify relevant clinical practice guidelines and reviews, (v) specify the review question using the PICO or PCC method, (vi) create the review protocol, (vii) synthesize the evidence. Partnering with Collaborative Practice and the Clinical Working Group was crucial as their perspectives reflect high priority and need-based topics as well as practice-informed knowledge. Their perspectives were captured through their participation in selecting and refining the review topic, outlining inclusion and exclusion criteria, and consulting on the interpretation of review findings. This program has supported the development of four standards of care: Managing stoma complications, serial casting, bowel management, and infant care.

Conclusions:

A rapid response program informed by knowledge translation activities and principles offers a practical solution for tackling complex practice-based questions. The program enables the development of robust, timely and evidence-informed KT products for clinicians. In sharing these processes, the hope is that other organizations can adopt/adapt them to inform policy development.

A Theory-Informed and Integrated KT Approach for Selecting and Implementing a Clinically Relevant Screening Tool

Townley A, Wincentak J, Scratch S, Provvidenza C, and Kingsnorth S

Presenter:

Joanne Wincentak

Institution:

Holland Bloorview Kids Rehabilitation Hospital

Background:

In 2015, the Canadian Heart and Stroke Foundation published a new pediatric stroke clinical practice guideline. An urban pediatric rehabilitation hospital that sees approximately 300 children and youth with stroke a year, aimed to select and implement appropriate recommendations to align evidence-based stroke care across inpatient, day patient and outpatient care settings.

Methods:

To navigate the complexities of real-world implementation, the hospital's knowledge translation team used the Theoretical Domains Framework (TDF) (Cane et al., 2012) and an integrated KT approach to develop and carry out an implementation strategy for one selected recommendation. The TDF is a meta-framework that combines 84 constructs and 14 domains from 33 psychological theories relevant to behaviour change. An integrated KT approach was used to optimize the relevancy and quality of implementation processes, resources and strategies to facilitate uptake. An iterative six step process was employed; (i) stakeholder engagement, (ii) recommendation selection, (iii) supporting literature review, (iv) implementation needs assessment, (v) implementation strategy development and execution (vi) process monitoring and evaluation using the Determinants of Implementation Behavior Questionnaire (DIBQ) (Michie et al., 2005).

Results:

Managing post-stroke depression was identified as the first area of need by clinicians, patients and their families. The team selected the self-report and proxy versions of the Patient Reported Outcomes Measures Information Systems (PROMIS) Pediatric Depression Screening tool to use with children between the ages of 5 – 17 across care settings at standardized points in care. To facilitate implementation, cut-off scores were generated by in-house psychologists. As appropriate, patients were referred for further investigation as identified through the tool and clinical expertise. Implementation strategies selected included; group training, case study role-play, electronic medical record modification, decision making guide, score interpretation guide, screening tool introduction scripts, clinical team check-ins, and local opinion leaders. DIBQ results showed that 90% believed that using the tool will strengthen the collaboration between professionals in the patient's circle of care and that 80% have the knowledge, skills and confidence to deliver the tool. This highlights that clinicians feel they have the capacity and motivation to use the tool. However, for many, barriers still exist to remember to do the tool as part of their regular practice with stroke patients.

Conclusions:

An implementation process based on the TDF and an integrated KT approach garnered frontline engagement and facilitated implementation by addressing knowledge, skill and confidence factors for screening tool use. Using a theory-informed approach in planning and evaluation highlighted tangible areas to improve upon. Findings from the DBIQ are being used to further tailor implementation efforts, such as addressing the need for greater automaticity to prompt use of the screening tool.

The Maritime SPOR SUPPORT Unit Bridge Process: An Integrated Knowledge Translation Approach to Address Priority Health Issues in Nova Scotia

Kontak JCH, Grant AK, Jeffers L, Rowe L, Adams J, Ricketts J, Davies M, Hamilton M, and Hayden J.A.

Presenter:

Julia Kontak

Institution:

Maritime SPOR SUPPORT Unit

Background:

The Maritime SPOR SUPPORT Unit (MSSU) was established in 2013 as part of the Canadian Institute for Health Research (CIHR) Strategy for Patient Oriented Research (SPOR). The MSSU aims to support patient-oriented health research that is applicable to policy/practice by engaging healthcare decision-makers, healthcare professionals and Patient Partners from across the three Maritime provinces.

In 2018, the Nova Scotia (NS) Site of the MSSU established the “Bridge process” to foster collaborative research teams between researchers and knowledge-users and to produce research that addresses priority-health issues in NS. The Bridge process takes an integrated knowledge translation (iKT) approach by engaging knowledge-users across all stages of the research process.

Method:

The Bridge process includes four main stages:

Stage 1: Identify priority health topics: The MSSU collaborates with the two provincial health authorities (Nova Scotia Health and the IWK Health) and the NS Department of Health and Wellness to identify priority health topics. The topics are then focused into questions, defined and prioritized. The approach to solicit priority health topics was guided by the Contextualized Health Research Synthesis Program, developed by the Newfoundland and Labrador Centre for Applied Health Research.

Stage 2: Engage stakeholders to refine priority health topics: Researchers, healthcare decision-makers, healthcare professionals and Patient Partners with interest and expertise in priority topic areas attend a half-day event to discuss and further refine the topics into research questions, through facilitated group discussions.

Stage 3: Facilitate groups to undertake priority projects: Research questions aligning with priority health topics are identified for further exploration, based on the needs of decision-makers and expertise brought by researchers and Patient Partners. The MSSU supports the development of research projects around the priority research questions.

Stage 4: Priority project application and support: If a project is identified, collaborative research teams can apply for MSSU Priority Project Support, thereby providing access to in-kind project management, coordination and research supports.

Results:

The full Bridge process has been implemented four times since June 2018. In total, 304 participants have attended the events including representatives from government (n = 33), health authorities (n = 103), patient/community (n = 36), research/university (n = 116) and other organizations (n = 16). Twenty-five priority topics have been discussed at the events and eight collaborative research teams have received MSSU Priority Project Support. Projects successful in receiving MSSU Priority Project Support include research projects on e-mental health, primary healthcare, osteoarthritis, and pharmacist prescribing.

The event provides other beneficial opportunities for stakeholders to network and build relationships. Based on our event evaluation survey, an average of 88% of participants across the four events reported they “Strongly Agreed/Agreed” that they have engaged with researchers, healthcare providers, decision-makers, and/or patients/citizens they would not have otherwise met.

Conclusion:

The Bridge process has served as a promising model for building collaborations across stakeholder groups and integrating the use of evidence into policy/practice. Next stages include adapting this process to be effective

through a virtual platform due to COVID-19 restrictions and evaluating the impact of priority projects on informing policy/practice.