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Moving Forward: Sustainable Approaches for Health

Conference Abstracts



Welcome from the Conference Co-Chairs

Healthy Populations Journal (HPJ) is a multi-faculty, student led, open access, peer-reviewed journal housed at HPI at Dalhousie University. As part of our mission to support and disseminate research which advances knowledge on population health research and global health equity, we partnered with the Crossroads Interdisciplinary Health Research Conference to highlight the student-led research presented at the 20th rendition of this annual conference on March 1st and 2nd in Halifax, Nova Scotia.

Crossroads is a student-led, peer-reviewed academic conference that is hosted by the School of Health and Human Performance Graduate Student Society at Dalhousie University and affiliated with the Healthy Populations Institute. Now in its 20th iteration, Crossroads has grown into a nation-wide, conference that receives submissions from diverse, health-related disciplines across the country. To our knowledge, Crossroads is the longest running student-led conference in Canada. This event is unique in that it considers health from an interdisciplinary lens and brings together some of the most promising student health researchers across Canada. Crossroads provides the opportunity for student researchers to share their work, network with health professionals and faculty, and for many attend their first academic conference.

This year's conference theme, Moving Forward: Sustainable Approaches for Health, aimed to move forward collaboratively post-pandemic towards a healthier, more sustainable, and vibrant future for all. Health challenges are exacerbated by an ever-accelerating climate crisis. We know health research and practice must transition to prioritize sustainable approaches as a means to achieve long-lasting change, and students play a pivotal role in guiding this transition.

Abstracts in this issue explore wide-ranging and timely topics related to population health, community health and engagement, health inequities, recreation and leisure, mental health and addictions, human movement and rehabilitation, health care access and inclusion, and sustainability.

The cover of this issue features a collage of photos taken over both days of the conference and evening events featuring our student and professional attendees connecting over a shared passion for health research.

This special issue would not be possible without support from the Healthy Populations Institute, and other sponsors of Crossroads 2024: Dalhousie University's Faculty of Health, College of Sustainability, and Faculty of Graduate Studies, CUPE Nova Scotia, Research Nova Scotia, Davis Piers Consulting, the MacEachen Institute for Public Policy and Governance, the Canadian Therapeutic Recreation Association, Dalhousie's School of Health and Human Performance Graduate Student Society, and Dalhousie Student Union's Sustainability Office, and support from the HPJ Editorial Board Members.

Simran Bhamra

Co-Chair, Crossroads Conference School of Health and Human Performance Dalhousie University **Emily Burke**

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The perceptions of health professional students on their prospective roles in oral health

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Abstract

Background Evidence on the bidirectional relationship between oral and general health is mounting 1. Physicians and nurses make up a large portion of the healthcare workforce well-positioning them to reduce oral health barriers through the promotion of screening and preventive strategies2. These roles however require adequate oral health education and training 3,4,5. Investigating medical and nursing student perceptions on their prospective roles and education may offer insight on integrating oral health care into practice. Objectives To explore medicine and nursing student perceptions on their prospective professional roles and experience with oral health education. Methods Participants from medical and nursing programs at a Canadian university were recruited through email distribution by school administrators. A 60-minute focus group was conducted with students from each program. Focus groups were audio-recorded, transcribed, and analyzed using interpretative phenomenological analysis. Results Five participants took part in the study over two focus groups. Three participants were enrolled in medicine and two were in nursing. Oral health education ranged from one lab to one week of content. Participants believe physicians, nurses, and other health professionals have a role in oral health. Medical students recognize the importance of oral health but identified a knowledge gap on how to integrate it into primary care. Their curriculum is delivered by specialists who focus on urgent and emergent oral health needs. Nursing students believe oral health and mouth care is important but suggest it is not prioritized due to clinical environment stressors, especially in long term care settings. When compared to other areas of health, medical and nursing students admit they lack confidence in oral health. Conclusion Prospective physicians and nurses believe they play a role in oral health care but believe additional education is needed to develop skills.

Keywords: Medical Education, Nursing Education, Oral Health

Research Area: Population Health Research Method: Qualitative



Access to Mental Health Resources among Asian immigrants in Canada: qualitative study

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Abstract

Introduction: Mental health is a concern all over Canada. Specifically, mental health of immigrants decreases the longer they stay in Canada. It is important to understand why it is decreasing and if the immigrants can access the resources available to them to improve their mental health. The purpose of this qualitative study will be to explore how Asian immigrants access mental health resources available in Canada. Methods: A qualitative approach will be used to conduct this study. We aim to recruit 20-25 participants from Halifax, Canada. A researcher will conduct semi-structured interviews in the same room or virtually via web-based or e-mail platforms based on the participant's interest. The questions will be based on if they have ever faced a mental health issue and if yes, did they use any resources. And if they didn't use any resources then why. We will also ask them general questions about how they are managing their health. Interview transcripts will be analyzed for themes related to resource access. Results/Anticipated Results: The results of this study will provide insight into how Asian immigrants access the resources and how easy it is for them to access the mental health resources available to them in Canada. The study will reveal the factors such as cultural beliefs, language barriers, stigma, and socio-economic status that influence the accessing and awareness of mental health resources among Asian immigrants. Conclusions/Significance: The findings of this study will contribute to the development of culturally appropriate mental health resources for Asian immigrants in Canada. The study will also provide recommendations for service providers to improve the accessibility of mental health resources for Asian immigrants in Canada.

Keywords: Asian Immigrants, Mental Health, Resources

Research Area: Mental Health/Addition



Barriers and Facilitators to Receiving Adequate Nutrition in Long-term Care Residents with Moderate to Severe Dementia

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Abstract

Dementia has profound impacts on cognitive and functional abilities of older adults in long-term care (LTC) homes. The intricate interplay between dementia and nutrition becomes evident as malnutrition, stemming from eating difficulties associated with cognitive decline, is a critical concern. Malnutrition leads to increased hospitalization rates, diminished quality of life, and heightened comorbidities. Previous studies have explored staff-perceived barriers and facilitators of food intake among LTC residents with dementia. However, our study takes a holistic approach, investigating perspectives from staff, residents with dementia, and their family members. Using a mixedmethodological approach, combining phenomenological qualitative and descriptive quantitative methods, participants were recruited from two LTC homes in Halifax, Nova Scotia. Semi-structured interviews were conducted with 7 family members, 4 residents with moderate to severe dementia, and 4 staff members between December 2022 and April 2023. Quantitative data, collected through mealtime observations and pre- and post-consumption measurements, aimed to assess food intake among LTC residents. Qualitative data analysis used a combination of deductive and inductive content analysis, guided by the socio-ecological model. Findings illuminated barriers and facilitators across intrapersonal, interpersonal, environmental, facility and policy-related domains. Notable barriers included variability among residents, cognitive and physical challenges, inadequate staff training, competing work demands, time constraints, and environmental influences. Facilitators included involving families in care, accommodating resident preferences in menu development, and maintaining overall independence in feeding practices. Quantitative analysis revealed none of the LTC residents met the benchmark of 75% for adequate nutrition intake. Study findings contribute insights to the development of evidence-based interventions.

Keywords: Dementia, Older Adults, Adequate Nutrition Intake

Research Area: Clinical Research Research Method: Mixed Methods



The impact of length of stay since immigration on the life satisfaction of immigrants in Canada

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Abstract

Introduction: Immigrant population represent the highest share of total population in Canada in comparison to any given country. According to Statistics Canada, 23% of the population in the 2021 census was made up of immigrants and this is set to rise to 34% by 2041. It is significantly important to consider their level of life satisfaction and its impact on their life during their early stages of settlement as well as later in their lives. We aim to assess the impact of length of stay since immigration on the life satisfaction of immigrants in Canada. Methods: We utilized the 2015-2016 Canadian Community Health Survey (CCHS) dataset. This is a cross-sectional survey conducted by Statistics Canada. The CCHS covers the population aged 12 and older who are living in Canada. A total of 12443 individuals were eligible for inclusion in our study. The Ordinary Least Squares (OLS) Linear Regression analysis was employed to perform the analysis. Results: The majority of participants (78%) had been residing in Canada for more than a decade. Among them, over half (56%) fell within the age range of 25 to 59 years old, and 62% were living with their spouse or common law partner. The sex distribution was evenly distributed, with females slightly outnumbering males at 53%. On average, respondents reported a high level of life satisfaction with an average score of 8 on a scale of 10. The regression analysis results indicated that for each additional 10-year living in Canada, the life satisfaction decreased by 0.09 points. Conclusion/Significance: The findings indicated a negative association between length of stay in Canada and life satisfaction of immigrants. This implies that individuals who have resided in Canada for less than 10 years tend to report higher life satisfaction. Furthermore, this will be useful in development of policies tailored for immigrants based on their experience and length of stay.

Keywords: Immigrant, Life Satisfaction, Length of Stay, Canada

Research Area: Health Policy/Health Law



Advocacy for Health Equity by University Students with Disabilities: A Participatory Knowledge Synthesis

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Abstract

Introduction: There is growing awareness of the importance of advocacy to health equity, with a focus on public health and primary care. As the World Health Organization notes, health involves well-being - including for people who may be living with illness and disability. Education is a determinant of health, and transitions to and through postsecondary education to decent employment can significantly influence well-being. There is a gap in knowledge about advocacy in university settings by students with lived and living experiences of health inequalities. Methods: This presentation addresses that gap via a participatory synthesis of current knowledge of the characteristics of successful approaches to advocacy for health equity by university students with disabilities. This research was conducted as part of the Learning and Leading with Lived Experience partnership involving Eviance (incorporated as Canadian Centre on Disability Studies) and the Spatializing Care Lab at StFX University. Academic and non-academic sources were reviewed to enhance the inclusion of student perspectives and voices. The synthesis was guided by an intersectional health equity conceptual framework. The research question, data sources, review steps and knowledge mobilization plan were co-developed with students with lived experiences of disability and disability advocacy organizations. Results: Successful approaches mobilize knowledge about inequities shaping student labour, value peer-education and mentorship, cultivate and sustain place-making, and hold space for the complexities of embodiment and individuality. Conclusion/Significance: Themes are situated within a history of disability rights in Canada to support recommendations for a human rights-based approach to disability student supports.

Keywords: Student Advocacy, Disability, Health Equity, First-Voice

Research Area: Health Inequity Research Method: Qualitative



Exploring the Psychological Impact of Hand-Arm Vibration Syndrome

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Abstract

Introduction: Hand-Arm Vibration Syndrome (HAVS) is an occupational disease associated with repetitive exposure to hand-transmitted vibration. Prior research has focused on physical manifestations of the disease with little known about the psychological impacts of HAVS. The aim of this study was to explore the psychological impacts of HAVS among manual labour workers in Ontario, Canada. Methods: We conducted a cross-sectional study collecting data through a survey and retrospective chart review of workers being assessed for HAVS at an Occupational Health Clinic. We collected information on demographics, work conditions, disease characteristics, as well as physical and psychological outcomes as measured through numerous validated instruments. Descriptive statistics and bivariate analyses were used to summarize the data. Results: Participants (N=94) were male with a mean age of 48.2 years. The majority (62%) worked in the mining sector. Overall, 26.6% of participants reported feeling depressed and 31.5% reported showing little interest in or pleasure in doing things. 52.1% of respondents indicated they felt nervous, anxious or on edge often and 45.7% were unable to stop or control worrying on a regular basis. The prevalence of mental health outcomes was higher among workers in the mining versus construction sector for depression (25.4% vs. 20.0%) and anxiety (54.2% vs. 40.0%) though these differences were not significant. Conclusions: Workers with HAVS experience poorer psychological outcomes in comparison to the general population. Employers should consider occupational health policies and procedures that will foster safer work environments and implement additional supports to address the psychological impacts of the disease.

Keywords: Occupational Diseases, Psychological Well-Being, Hand-Arm Vibration Syndrome, Mental Health

Research Area: Kinesiology/Human Movement Science



What community-related factors support women 45 years of age and older to be physically active in Nova Scotia?

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Abstract

Introduction: Physical activity reduces cardiometabolic risks, supports healthy body composition, decreases risk for osteoporosis, and may reduce menopausal symptoms in women ≥45 years. Despite the known benefits, women commonly experience a decline in their physical activity during the menopausal years. While there are several contributing factors, supportive community environments and programs may reduce barriers to movement and enable women to participate in more physical activity. Methods: Using a phenomenological approach, this study will explore community-related factors that may support women's physical activity. We will conduct 18-24 semistructured interviews with women in four Nova Scotian Communities on the Move communities. Communities on the Move is an initiative that aims to enhance physical activity through infrastructure and program-related changes within communities. We will recruit women ≥45 years who self-reported an increase in their physical activity over the last year. Data will be analyzed using reflexive thematic analysis. Anticipated Results: Findings will highlight community-related factors that may support, and identify barriers that may reduce, women's physical activity. It is anticipated that the stories of women who have maintained or enhanced their physical activity, in a population that tends to experience barriers to movement, will help identify strategies and recommendations that can be relayed to communities and decision-makers to better support women to engage in physical activity. Significance: Findings will be shared with community leadership teams and decision-makers, with the intent of ensuring community-related supports are available to women, a population that tends to experience additional barriers to movement during and after the premenopausal years.

Keywords: Women's Health, Community, Physical Activity, Pre-menopausal

Research Area: Population Health Research Method: Qualitative



A balancing act: Occupational balance among mature graduate students

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Abstract

Introduction: Occupational balance is a multidimensional concept that describes everyday doing in terms of balancing obligatory and chosen activities that can impact wellbeing (Eakman, 2016). While thoroughly explored among working adults (Wagman et al., 2011), little is known about the experiences of mature graduate students, who often juggle school with other life obligations. Objectives: This research explored the lived experiences of occupational balance among mature graduate students during the writing stages of their Master's theses. Methods: Informed by phenomenological approaches, this research involved 8 semi-structured interviews with full-time Master's students who were also involved in another commitment (e.g., paid work, volunteerism). Data were analyzed using Interpretative Phenomenological Analysis (IPA; Smith et al., 2022). Findings: Participants described feelings of overwhelm and loss of control within the unique context of graduate studies, which included demands on their time beyond their thesis work, lack of structure within graduate studies, and high academic expectations. Participants also described negotiating conflicted feelings between various responsibilities and their desire to pursue restorative activities. Participants used a variety of strategies to achieve what they described as a sense of balance including: creating their own structures, engaging in concurrent occupations that met multiple needs to save time, and, for some, considering balance over the long term. Conclusion: Experiences of occupational imbalance are common among mature graduate students manifesting as feelings of overwhelm, stress, and pressure. Students' strategies can inform academic supports and advance theoretical understandings of occupational balance.

Keywords: Occupational Balance, Mature Graduate Students, Wellbeing

Research Area: Mental Health/Addiction



A program evaluation study of first-year student experiences in Dalhousie University's Recreation Orientation camp

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Abstract

Introduction: Recreation Orientation (Rec-0) is an annual student-run event for the Bachelor of Science (Recreation) program students from Dalhousie University. The purpose of Rec-O is to energize, excite and inform new students about their studies in Recreation and Leisure Studies (RLS) and transition into university. The event allows students to interact with recreation professionals and gain practical advice, encouragement, and support from upper-level students and peers as well as to get to know the RLS faculty. Approximately 40 cohorts of students have participated in Rec-O; however, there has been limited research or formal evaluation conducted on the student experience. The purpose of the study is to better understand the student experience to help inform future program development by exploring the participants of Rec-O in Fall 2024. Methods: An exploratory mixed methods approach will be utilized in this program evaluation. An online survey will be constructed and distributed widely to participants. Data will be collected from approximately 30 surveys with open- and closed-ended questions. The participants who complete the survey will be asked about their interest in participating in a focus group interview to gain a deeper understanding of their experience. Further data will be collected through two semi-structured focus group interviews with approximately seven participants in each group. Anticipated Results: The results expected will provide deeper insight into the student experience of Rec-O, explore if the objectives of Rec-O are being met, and student recommendations for future programming. Significance: The results generated from this study will direct future Rec-O programming, understand the perceived impact of Rec-O, and contribute to current literature on orientation programs and supporting the transition to university.

Keywords: Program Evaluation, Exploratory, Recreation

Research Area: Recreation and Leisure Research Method: Mixed Methods



Exploring caregiver views on risky play for children with neurodevelopmental disabilities: A qualitative study proposal

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Abstract

Introduction: Risky play supports healthy childhood development. However, children with neurodevelopmental disabilities (CWNDD) often engage in less risky play than children without disabilities. Risky play includes elements of potential/perceived danger and is often carried out in free play settings. Risky play allows children to develop psychological understandings by recognizing their perceptions of safety. CWNDD miss out on essential aspects of their development when there are barriers to risky play. This study aims to: 1) describe the risky play experiences of CWNDD from their caregivers' perspective, 2) define and characterize the current definitions of risky play for CWNDD, and 3) identify barriers to risky play opportunities for CWNDD. Methods: This study supports research for the Canadian Disability Participation Project (cdpp.ca) and uses qualitative description. We will recruit 12 Nova Scotian caregivers of CWNDD (ages 7-13 years). We will conduct semi-structured interviews and transcribe audio verbatim. We will analyze data using reflexive thematic analysis. Anticipated Results: We anticipate that the caregivers interviewed will describe characteristics of risky play that are unique to CWNDD. We expect that caregivers will perceive their child has fewer opportunities to engage in risky play, but that they will see the benefits of increased risky play opportunities for their CWNDD. Anticipated Significance: Findings will illustrate the differences in risky play for CWNDD from a caregiver perspective and how this impacts the child's overall health and wellbeing. Incorporating caregiver perspectives will give insight into participants' lived experience. This will allow the study to have increased validity and share unique understandings of risky play.

Keywords: Risky Play, Children and Youth, Neurodevelopmental Disabilities

Research Area: Recreation and Leisure



Experiences Accessing Gender-Affirming Care in Nova Scotia: More than Medical Care

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Abstract

Introduction: Everyone deserves access to care that affirms their entire self, especially gender-diverse persons. Various determinants of health, such as socioeconomic status, geographic location, gender identity, and sexual orientation, contribute to interrelated disparities at institutional, interpersonal, and individual levels, adding to the burdens faced. Gender-affirming care (GAC), is inclusive of all supports individuals need to affirm their gender identity, which may include both medical and non-medical services. Although Nova Scotia (NS) has recently been identified as having the largest population of gender-diverse persons in Canada, little literature exists looking at experiences accessing non-medical forms of GAC.

Methods: This qualitative, hermeneutic study explored participants' experiences in accessing medical and non-medical GAC in NS. Semi-structured interviews were held with gender-diverse persons and data was analyzed using thematic analysis and the qualitative software, NVivo11. An advisory committee from the gender-diverse community collaborated with the researcher to aid in refining interview questions, supporting the interview process, and facilitating data analysis.

Results: Results of this study shed light to the nuanced experiences of gender-diverse individuals in NS as they navigate access to medical and non-medical GAC. Results identify barriers and facilitators to access including systemic challenges, societal prejudices, or lack or understanding among service providers and community. Overarching themes identified include More than Medical Care, "It is like David and Goliath" – Solitary Struggle in Rural NS, Searching for Support, "You get what you get" – Non-Affirmative, and Recommendations from Participants.

Conclusions/Significance: Findings can contribute to literature on holistic GAC services and may inform the development of inclusive policies, educational programs and support services for delivering affirmative and gender inclusive care.

Keywords: Gender Identity, Gender-affirming Care, Health Services Accessibility

Research Area: Health Inequity Research Method: Qualitative



Oral Processing and Sensory Perception of Food: A Scoping Review

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Abstract

Introduction: The objective of this scoping review was to map the breadth of current knowledge regarding the relationship between food oral processing (FOP) and oral sensory perception (OSP) of food in humans. Methods: The review was conducted in accordance with the JBI methodology for scoping reviews and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews. A health sciences librarian developed the search strategy, which was peer-reviewed by a second health sciences librarian using Peer Review of Electronic Search Strategies (PRESS). Six databases and information sources were searched to identify studies that investigated the relationship between FOP and OSP in humans. Titles, abstracts, and full-texts were screened by two or more independent reviewers using a pilot-tested process. Data was extracted from the included papers by two independent reviewers using a data extraction tool developed by the reviewers. Results were narratively synthesized. Results: The search yielded 10,199 texts after the removal of duplicates, of which 126 were reviewed in full. Forty-three studies were identified for inclusion. Most studies investigated young adults with no FOP or OSP impairment. FOP was assessed primarily using salivary flow, expectorated bolus measurements, rate of FOP, and visual evaluations of FOP structures. OSP was assessed using rating scales and dynamic sensory perception assessments. Results indicate that OSP changes throughout FOP. Many studies focused on FOP and OSP for manufacturing and consumerism purposes. A small number examined the impact of altered oral status on FOP and OSP and found that functional teeth units are positively correlated with improved FOP and taste perception. Conclusions: FOP and OSP are inextricably linked. Despite the importance of this relationship, a paucity of literature has investigated their interaction across the age spectrum and with a focus on evaluating or optimizing function.

Keywords: Humans, Sensory Perception, Oral Processing, Taste Perception

Research Area: Population Health Research Method: Qualitative



Does Area-Level Income Modify the Association between Gestational Weight Gain and Key Perinatal Outcomes?

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Abstract

Gestational weight gain (GWG) is the alteration in weight from conception to delivery. Guidelinediscordant GWG (below or above the recommended amount) is associated with delivery and neonatal complications such as preterm delivery (PTD), small for gestational age (SGA), large for gestational age (LGA), shoulder dystocia, and Cesarean delivery (CD). However, whether socioeconomic status influences the associations between guideline-discordant GWG and adverse perinatal outcomes has not been examined. The objective is to examine if area-level income (ALI) modifies the association between guideline-discordant GWG and five perinatal outcomes (PTD, SGA, LGA shoulder dystocia, and CD). Methods: A retrospective cohort study of Nova Scotian pregnant individuals who had singleton deliveries from 2004-2022 will be conducted using data from the Nova Scotia Atlee Perinatal Database. The primary exposure of interest is GWG categorized relative to the amounts recommended in Canada (below and above, relative to within). ALI will be represented by Quintile of Adjusted Income Per Person Equivalent After Tax (QAATIPPE) derived by Statistics Canada from census data, which will be assigned to each pregnant individual based on their residential postal code. Modified Poisson regression models will be used to estimate the risk ratios for the associations between guideline-discordant GWG and the perinatal outcomes, stratified by ALI quintiles. Effect measure modification by ALI on the additive scale will also be estimated. Anticipated Results: Lower ALI, as an indicator of social deprivation and other determinants of health, may amplify the risk of adverse perinatal outcomes associated with guideline-discordant GWG. Significance: Understanding if ALI modifies the association between guideline-discordant GWG and each perinatal outcome can inform medical professionals and policymakers to provide programs and interventions to reduce disparities for pregnant individuals in Nova Scotia.

Keywords: Epidemiology, Social Determinants of Health, Perinatal Health

Research Area: Population Health Research Method: Quantitative



Exploring Queer Perspectives: Improving Mental Health Support in the Age of Dating Apps & COVID-19

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Abstract

Introduction: The COVID-19 pandemic has reshaped our world and introduced unprecedented challenges and disruptions. Dating apps witnessed a surge in popularity during this time, emerging as popular platforms for Queer people to connect with one-another. The ongoing pandemic has further underscored the need to investigate and address the unique mental health needs of this population. The purpose of this study is to explore the perspectives of Queer people on how their mental health can be better supported in the context of dating apps and COVID-19. Methods: This study employs a qualitative descriptive design, delving into Queer peoples' views on how to improve mental health supports. This study utilizes data from a larger project, exploring an aspect not extensively analyzed in the original study. Analyzing data from 106 individuals across diverse backgrounds in Nova Scotia, thematic analysis will be used to extract meaningful patterns from responses to an open-ended question from an online survey asking, "How can 2SLGBTQ+ people's mental health be better supported?". Anticipated Results: Preliminary results are expected to uncover valuable insights into Queer individuals' recommendations. Initial themes call for culturally competent practitioners, enhanced representation in professional spaces, and the creation of safer, more inclusive environments in rural areas of Nova Scotia. Anticipated outcomes also include a deeper understanding of systemic challenges and barriers to accessing existing mental health resources. Significance: Deepening our understanding of Queer individuals' perspectives on the most effective methods to support their mental health is crucial. By directly seeking input from this community, this research provides valuable insights into their lived experiences. Recognizing the significance of their voices, this project aims to contribute to more informed and effective strategies for addressing Queer Nova Scotians' unique mental health needs.

Keywords: Queer Young Adults, Dating Apps, Mental Health, COVID-19

Research Area: Health Inequity Research Method: Qualitative



The UpLift Partnership in Nova Scotia: Mapping our story to the Canadian Healthy School Standards

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Abstract

Introduction: Schools are ideal settings for health promotion activities given that most children spend large amounts of time at school, and there is growing evidence that healthy students learn better. Health Promoting Schools (HPS) is a framework for schools to "constantly strengthen their capacity as a healthy setting for living, learning, and working". In Nova Scotia, HPS was adopted in 2005. Research in Nova Scotia schools has identified that top-down policies were a facilitator, and financial challenges were a barrier, to provincial HPS implementation. In response to these findings, the UpLift Partnership was developed and implemented to catalyse HPS adoption and impact, with a focus on student engagement. UpLift is a School-Community-University partnership supporting the health and learning of school-aged children and youth by catalyzing ongoing HPS efforts in the province. Nationally, the Canadian Healthy School Standards (CHSS) provide a framework for promoting health and well-being within school communities The purpose of this presentation is to describe the process undertaken to map UpLift activities onto the CHSS, identify areas of alignment and reflect upon priority areas for future work. Methods: Using document review methods we will map UpLift activities to the three Foundational Standards and 8 Implementation Standards outlined by CHSS and identify areas of alignment or deviation. We will discuss which standards are embedded in our work, and which standards require further attention.

Anticipated Results: The results of this mapping exercise will generate a comprehensive assessment of the UpLift Partnership activities since 2019 based on an existing set of national HPS Standards. Significance/ Conclusion: We anticipate that this mapping activity will demonstrate how work in Nova Scotia is supporting HPS implementation, how the work aligns with national standards and offer learnings for other jurisdictions.

Keywords: Child Health, Health Promoting Schools, Comprehensive School Health

Research Area: Population Health Research Method: Mixed Methods



Simulated Real-world Feasibility and Feedback Session for the Raymex Lift: a qualitative description study

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Abstract

Introduction: In North America, the prevalence of falls in older adults ranges from 20-30%. Many informal (e.g., spouse) and formal (e.g., personal support worker) caregivers struggle to or cannot lift a person after they've fallen, creating a significant physical and mental caregiver burden. Assistive lift devices can lessen the burden on caregivers and older adults, but many models are not mobile/portable or self-operational. The Raymex Lift is a novel lift assistance device with a similar design to a rollator walker, designed to address these concerns. The final prototype of the Raymex Lift has been created but requires feedback on the final design.

Objectives: To seek older adults', informal and formal caregivers' feedback on the Raymex Lift, and its users set up instructions and safety protocols.

Methods: 4 older adults, 2 informal caregivers, and 15 clinicians/formal caregivers viewed a demonstration of the Raymex Lift, used the device and provided device and user guide feedback, and completed a demographic form and stakeholder feedback questionnaire. Thematic content analysis was used to reveal common device concerns and benefits.

Results/Anticipated Results: Preliminary results reveal constructive feedback about seat comfortability, braking system control utility, device weight, pricing, assistive lift ability, device stability, use in exercises, and minor labeling changes to the user guide.

Conclusions/Significance: This feedback enables final modifications on the Raymex Lift based on what older adults, caregivers and clinicians would like to see to improve the usability of the device by these populations.

Keywords: Durable Medical Equipment, Interview, Accidental Falls, Lift Assistance Device

Research Area: Clinical Research Research Method: Qualitative



Community-Based and Participatory Approaches in Social Prescribing: A Scoping Review

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Abstract

Introduction: Social prescribing (SP) has emerged as a strategy in primary care that enables clinicians to connect patients to services and programs in the broader community to address health and social needs. While the evidence base for SP is expanding, there remains a lack of research surrounding specific approaches within the practice of SP. Community-based and participatory approaches in SP involve collaborative efforts between the healthcare setting and the community to coproduce and implement SP programs. The objective of this scoping review is to understand the extent and type of evidence that exists in relation to community-based and participatory approaches in SP. Methods: This review will follow the Joanna Briggs Institute (JBI) framework for scoping reviews. Relevant databases such as Academic Search Premier, CINAHL, PsycINFO, and PubMed incorporating MEDLINE will be searched. Only English-language publications with full-text accessibility will be included. Two independent reviewers will participate in the study selection process, and conflicts will be resolved by reaching consensus. Conventional qualitative content analysis will be used to identify key themes and patterns, and gaps in the existing knowledge. Anticipated Results: The result of this scoping review will be a map of the existing literature depicting what is known about community-based and participatory approaches in SP. This review will provide a foundation for further research concerning SP and the application of a community-based and participatory approach in this practice. Significance: This review will be significant to researchers, policymakers, practitioners and community organizations that are interested in gaining an advanced understanding of community-based and participatory approaches in SP. This research can also benefit prospective patients by contributing to the development of SP practice.

Keywords: Social Prescribing, Community-based, Participatory

Research Area: Population Health Research Method: Qualitative



Exploring Therapeutic Recreation Practitioners' Perspectives on Nature-Based Programming in the Province of Nova Scotia

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Abstract

Introduction: The importance of human and nature relationships has gained attention in recent years due to its potential impact on health. Therapeutic Recreation (TR) is an allied health profession that uses recreation, leisure, and play as treatment modalities to enhance health and wellbeing. TR specialists have found creative ways to implement interventions with the use of natural elements, either as a setting or directly integrating nature and the outdoors into planned activities. Naturebased therapeutic recreation (NBTR) modalities have the potential to enhance quality of life and wellbeing, and can complement interventions in more traditional health settings. The purpose of this study was to examine the research question: What are TR practitioners' perspectives on the use of nature-based programming as intervention in the province of Nova Scotia? Methods: Using a constructivist worldview and qualitative description design, semi-structured interviews were conducted with 13 TR practitioners to gain new understandings and perspectives of their experiences with NBTR. The data was analyzed using thematic analysis to systematically develop themes around the identified gaps and the future opportunities in NBTR. Results: Initial analysis has identified themes representing TR practitioners' experiences with NBTR, including types of NBTR modalities, perceived benefits for diverse populations, best practices, and challenges and barriers to implementation. Future directions and opportunities within NBTR in Nova Scotia will be discussed. Significance: While there is a large body of research exploring the impacts and benefits of NBTR for different population groups, there is a limited amount of literature exploring these within the landscape of Nova Scotia. This study has significance in the field of TR as its exploration of NBTR will be informing future practice within the province and elsewhere by identifying best practices.

Keywords: Therapeutic Recreation, Nature, Wellbeing

Research Area: Recreation and Leisure



Is muscle function linked to post-joint replacement surgery pain and function in patients with knee osteoarthritis?

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Abstract

Introduction: Osteoarthritis (OA) is a prevalent joint disease, most common in the knee joint, where progressive breakdown of joint tissues, including cartilage, bones and muscles results in severe pain, stiffness, mobility decline and disability. No cure exists for knee OA, and end-stage treatment is total knee arthroplasty (TKA) surgery. Dissatisfaction rates up to 30%, minimal improvements in patient reported outcomes (PROMs), and high variability in improvements for objective measures of mobility were found one-year post-TKA. Given the importance of muscle function for mobility and the minimal focus on improving muscle function in pre-and post- TKA rehabilitation, this study aims to improve our understanding of the association between muscle function and post-TKA changes in mobility and PROMs of pain and function. Methods: Data collected approximately one-week before and one-year post-TKA at the Dynamics of Human Motion Laboratory, Dalhousie University, on 150 participants with end-stage knee OA included PROMs, walking speed, knee extensor (KE) and flexor muscle strength and muscle activity during walking. This secondary analysis will use linear models to determine how much variance muscle strength and activity patterns during walking explain in post-TKA changes in PROMs and walking speed. Anticipated Results: The hypothesis is that pre-post-TKA changes in KE muscle activity patterns during walking and KE muscle strength will explain significant variance in PROMs scores and walking speed changes post-TKA surgery. Significance: If changes in specific muscle function features are associated with improvements in pain and function outcomes post TKA surgery, these findings will provide targets for pre-post rehabilitation programs. Both muscle strength and activity patterns during walking are modifiable through training, thus, this study will strengthen the evidence related to the value of muscle functional training in post- TKA programs to improve surgical outcomes.

Keywords: Rehabilitation, Surgery, Knee Osteoarthritis, Patient Reported Outcome Measures,

Mobility

Research Area: Clinical Research Research Method: Quantitative



The Impact of the Covid-19 Pandemic on the Experiences of Nova Scotian Dentists

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Abstract

Introduction: The Covid-19 pandemic has significantly impacted dentistry, a vital healthcare profession, due to the nature of the work. We explored the experiences of Nova Scotian dentists during the pandemic including motivation to work and perceived organizational support. Methods: This was a mixed-methods study utilizing a sequential exploratory design. Phase 1 involved qualitative interviews with eight Nova Scotian dentists regarding their pandemic experiences. Analysis included deductive coding looking at administrative challenges, motivation to work, patient observation, and future recommendations. Phase 2 consisted of a cross-sectional survey distributed through the Nova Scotia Dental Association (NSDA), examining organizational support, motivation to work, and observed pandemic impacts on oral health. Descriptive and bivariate analyses were used to summarize the study sample and explore differences between subgroups. Results: Results from Phase 1 revealed physical and logistical challenges, such as difficulty obtaining and working in personal protective equipment. Barriers to motivation to work included financial stresses and concern about patients who could not get care. A key recommendation was against complete practice shut down in future pandemics. Clear return to work plans provided by the NSDA were identified as an important support. Phase 2 revealed a high level of perceived organizational and regulatory body support among respondents (n=19). Men exhibited slightly higher intrinsic motivation compared to women, suggesting there may be observed gender differences in types of motivation. Changes in oral health concerns placed clenching and grinding as top observations. Conclusions: This study's insights into dentists' occupational challenges provide guidance for employer and professional association retention strategies and may inform future training and emergency preparedness plans.

Keywords: Dentists, COVID-19, Motivation, Job Satisfaction, Nova Scotia, Disaster Planning

Research Area: Population Health Research Method: Mixed Methods



Recreation therapy in school-based settings for elementary students with disabilities: Practitioner perceived roles, benefits, challenges, and opportunities

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Abstract

Background: Therapeutic recreation utilizes recreation and leisure-based activities as interventions to address client needs and improve their well-being. Students with disabilities may experience barriers to their learning, sense of belonging, and physical well-being. Recreation therapy has the potential to support students to optimize their well-being. Thus, this study explored the role of recreation therapy in supporting students with disabilities. We explored practitioner perceived benefits, challenges, and opportunities in school-based recreation therapy services for students with disabilities. Methods: This study used a qualitative descriptive approach. Semi-structured interviews were conducted via Microsoft Teams with recreation therapists working in elementary school settings across Canada. Interview data were recorded, transcribed verbatim, and analyzed using reflective thematic analysis. Results: Six recreation therapists were interviewed. Four themes were generated, including "Flexible Alignment with Scope of Practice": describing how practitioners navigated client assessment, planning and implementing interventions, and documentation; "Selection of Programs is Child and Needs Specific": describing the evidence practitioners used to make decisions and support individual client needs; "Sense of Belonging Outcomes are Embedded": describing the goal of inclusion and belonging for most clients; and "This is Just the Start": describing

Keywords: Therapeutic Recreation, Children with Disabilities, Elementary Students

Research Area: Recreation and Leisure



Debating Physicians' Roles in Medically Assisted Death in Canada: A Critical Discourse Analysis

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Abstract

INTRODUCTION: MAID (Medical Assistance In Dying) has been controversial in Canada since its legalization as it faces vast opposition. Conscientious refusal, an act of freedom of conscience where a procedure can be refused due to a physicians' moral or religious values adds to the controversy (Downie et al., 2013). There is a lack of research on key definitions and contradictions on ethical implications by bioethicists, physicians, lawyers, sociologists and other scholars. Research suggests that MAID guidelines are patient-centric and there is scarce psychological support for physicians. The Canadian public is questioning conscientious refusal as it encapsulates physician-patient agency and their relationship. METHODS: This study uses a critical discourse analysis to study data from the comments section of an article on conscientious refusal in MAID. 125 comments were preliminarily coded through thematic coding in NVIVO. RESULTS: Data analysis concludes that some Canadians prioritize patient rights over physician rights, are concerned about healthcare accessibility and oppose physician conscientious refusal. Moreover, this research finds that commentators prioritize ethical considerations, religious secularism in the healthcare system and the referral system as they reflect on their agency. On the other hand, posters fail to acknowledge physician viewpoints and exclusively concentrate on the implications for the patient and vice versa. SIGNIFICANCE: This research is significant as deciding to allow conscientious refusal in MAID impacts physician and patient rights. The investigation highlights the necessity of future research on the topic gaps to correctly support physicians and patients.

Keywords: Medical Assisted Death, Conscientious Refusal, Critical Discourse Analysis

Research Area: Health Policy/Health Law



Identifying Factors that Contribute to the Identification of Medical Complexity in a Pediatric Population

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Abstract

Introduction: Pediatric patients with medical complexity (MC) have multiple chronic health conditions that require medical care and support from multiple health care providers (ScienceDirect, n.d.). At present no universally accepted definition of MC exists, however such children share four common features; diagnosis of a chronic condition, high use of health care services, functional limitations, and family identified impact relating to the child's condition (Canadian Institute for Health Information, 2020). This analysis will aim to answer the research question; what factors impact the determination of a patient being considered MC? Methods: A health administrative dataset was utilized, which contained information about children from Nova Scotia who visited the IWK between 2003 and 2017 and were thought to have MC as per pre-existing algorithms for the identification of such complexity. Logistic regression with backward model selection was carried out to assess the outcome variable of MC, identified by the study team, against variables that are thought to contribute to high health care use, functional limitations, diagnosis of a chronic disease, and family identified impact. Results: Among all patients in the database 46.9% (164/350) were determined to have MC. A significant relationship was found between MC and a hospital admission lasting 0 to 4 days (OR: 2.40, p>0.007), and a significant inverse relationship was found between MC and one or more emergency department visits per year (OR: 0.51, p>0.008). Conclusion: A significant relationship between MC and hospital admissions lasting 0-4 days, and one or more emergency department visits per year was identified.

Keywords: Medical Complexity, Pediatric, Health Care Use, Family Identified Needs, Functional

Limitations

Research Area: Clinical Research Research Method: Quantitative



Lower Extremity Muscle Function on Pain and Joint Loading in Males and Females with Knee Osteoarthritis

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Abstract

Introduction: Knee osteoarthritis is commonly associated with increased pain, abnormal loading, and muscle impairments. Despite being the main features of the disease, the association between pain measures and mechanical loading, along with the role of impaired muscle function, remains unclear. Previous sex-specific evidence highlights discordant pain experiences and muscle function between males and females; therefore, the purpose of the study is to determine whether a sexbased interaction exists between pain and muscle function on dynamic joint loading in individuals with knee osteoarthritis. Methods: Individuals over 40 years old with a clinical diagnosis of knee osteoarthritis based on symptoms defined by the Arthritis Society of Canada will be recruited. Participants will undergo three-dimensional gait analysis. Peripheral and central sensitization for pain will be measured using an algometer and monofilaments. Quadriceps and hamstring muscle function will be quantified by isometric strength and ultrasound-based measures of muscle stiffness. Quadriceps and hamstring co-activation will also be measured by surface electromyography. Sex-specific multivariate linear regression models will investigate interactions. Anticipated Results: Females are expected to exhibit lower pain tolerance, greater pain sensitivity, stronger pain-muscle function associations, and increased knee joint loading compared to males. Muscle stiffness is hypothesized to mediate the pain-mechanical loading association, with central sensitization contributing more significantly to pain in females. Significance: Declines in muscle function are an important risk factor for disease onset and progression but can also be targeted with informed and tailored rehabilitation strategies. Understanding how knee pain interacts with lower limb muscle function may inform multi-modal management specific to males and females for improving mobility in osteoarthritis.

Keywords: Knee osteoarthritis, Central Nervous System Sensitization Pain, Sex-Specific, Joint loading

Research Area: Population Health Research Method: Quantitative



Development of Essential Coaching for Every Partner: A Postnatal Text Message Intervention for Non-Birthing Parents

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Abstract

Background: The transition to parenthood is an exciting yet challenging period that requires physical, emotional, and social adjustment. While there is focus on the transition for mothers (cis gendered female, birthing person), the non-birthing parent (e.g., cis gendered males, fathers, LGBTQ+ partners) are less supported. One innovative strategy that can be used to bridge this gap and provide postnatal information and support to non-birthing parents is mobile health, specifically text messaging. Purpose: Following a successful text message intervention designed to support the birthing parent (Essential Coaching for Every Mother), the objective of the current project is to develop a text message intervention called Essential Coaching for Every Partner to improve non-birthing parents' access to newborn care information and mental health support during the immediate 6-week postpartum period. Methods: Messages will be modified from Essential Coaching for Every Mother, tailored to the non-birthing parent. Using iterative design testing, feedback on the content will be collected using semi-structured interviews through 3 rounds of iteration. First time non-birthing parents (n=15) and postpartum healthcare providers (n=15) will be recruited and interviewed. Modifications will be made based on participant feedback. Survey data (e.g., demographics, timing data) will be summarized through frequencies and percentages.

Anticipated Results: To develop a finalized version of Essential Coaching for Every Partner as a 6-week postpartum text message program. Conclusion/Significant: Essential Coaching for Every Partner is the first postnatal educational text message intervention developed for non-birthing parents in Nova Scotia and will be evaluated in a randomized controlled trial starting in Spring 2024.

Keywords: Mental Health, Non-Birthing Parent

Research Area: Population Health Research Method: Mixed Methods



Youth perspectives on disability, inclusion, and what it means to belong in high school

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Abstract

Introduction: Disabled youth experience social and health inequities secondary to ablest systems, structures, and cultural values. As a disabled woman, my passion for disability rights, inclusion, and belonging is rooted in my lived experiences of navigating disability in an ableist society. Research on the impact of social inclusion for children and youth has largely focused on the population as a whole, based in the classroom and on their acceptance and active participation within the academics. I plan to research the social constructs surrounding inclusion outside of the classroom, but within the institution, specifically focusing on the playground (recess) interactions between students who are and are not disabled. This is an important area of research as bullying, exclusion and stigmatization are often reported on the playground, away from the watchful eyes of teachers. Methods: Drawing on critical disability theory, critical ethnography will be used to understand how social, cultural, relational, and political conditions shape disabled youth's experiences of social inclusion and belonging and how these conditions reinforce and maintain social inequities. Anticipated Results: The end result would be a framework to improve social inclusion for disabled students, containing useful information on the relationship between social inclusion and belonging that are grounded in youth's perspectives and lived experiences; ultimately emphasizing to educational institutions and policymakers the benefits of fostering environments where students are fully included in social life. Significance: This research aspires to contribute to the development of a framework to improve social inclusion for disabled youth using the concept of belonging as a core construct.

Keywords: Disability, Inclusion, Well-being, Belonging, Health

Research Area: Population Health Research Method: Qualitative



Family Involvement in Care of Patients with Chronic Illness During an Acute Care Hospital Admission: A Scoping Review

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Abstract

Introduction: Families and patients with chronic illnesses have identified family-centred care as beneficial. Families of these patients are a critical source of knowledge regarding the patients' experiences and care needs during an inpatient admission. It is essential to involve the family in the patient's care while they are in the healthcare facility. A scoping review is being conducted to synthesize the literature regarding strategies and frameworks implemented to increase family involvement in care during the acute hospitalization of someone with a chronic illness. This scoping review addresses the following question: What strategies or frameworks have been implemented to guide family involvement in the care of individuals with chronic illness(es) during acute inpatient hospital admissions? Methods: This research is guided by the Joanna Briggs Institute methodology for conducting scoping reviews. The search strategy was conducted in Medline, Embase, and CINAHL. Study selection is being completed by two independent reviewers using Covidence software. Grey literature will also be considered by Google search and other relevant databases. Anticipated Results: The findings will provide important information to the healthcare system for policymakers, families of patients with chronic illness(es), and healthcare members. It is anticipated that the results will provide a further understanding of what can be done to improve family involvement in acute hospital care for patients with chronic illnesses. Significance: There is a critical gap in the literature describing how family involvement is operationalized in healthcare facilities to improve the care of patients with chronic healthcare needs. This scoping review is essential for the health of people living with chronic illnesses and their families to identify ways to improve family involvement during acute hospitalizations, identify further research, and identify what can be translated into the healthcare system.

Keywords: Caregiver, Involvement, Acute Care, Chronic Illness

Research Area: Population Health Research Method: Mixed Methods



A Short Virtual Reality (VR) Experience Can Change Attitudes Towards Emerging Health Technology in Rural Older Adults

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Abstract

Introduction: An emerging application of virtual reality (VR) is in the field of health care. VR can be used to offer portable, engaging, and effective rehabilitation services. However, motion sickness and older adults' attitudes towards the technology could be barriers to VR rehabilitation uptake. Accordingly, we sought to determine whether a short exposure to VR can enhance healthy, older adults' attitudes towards the technology without causing motion sickness. Methods: Rural, older adults over the age of 60 were recruited to participate in this between-subjects study. Participants were randomly assigned to the control condition (i.e., reading information about VR) or the experimental condition (i.e., a 15-minute VR experience). Attitude change was assessed using a prepost survey. Results: Data analysis is currently in progress, yet preliminary results are available. Thirty-six women and 26 men participated in the study, with 84% (52/62) of participants having no prior VR experience. The survey results indicated that participants had a significant, positive attitude change towards VR after participating in the study. It is anticipated that the active VR experience did not cause significant motion sickness, and it was more effective than the control condition for changing some opinions about VR. Significance: If older adults have a positive attitude towards VR, it is more likely that this technology can be successfully adopted for rehabilitation services within this age group. Using VR for rehabilitation will reduce the strain on health care systems and improve

Keywords: Virtual Reality, Attitude, Rural Population, Delivery of Health Care, Rehabilitation

Research Area: Applied Science/Engineering



Stakeholders' Experiences with School-Based Immunization Programs During the COVID-19 Pandemic

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Abstract

Introduction: School-based immunization programs (SBIP) support access to routine vaccines for adolescent students. In the Maritimes, the COVID-19 pandemic and subsequent public health measures (PHM) affected SBIP delivery. The objectives of this study were to identify and address the impacts of the pandemic on SBIP in the Canadian Maritimes. Methods: First an environmental scan (ES) of SBIP procedures in each Maritime province between 2018/2023 to determine how the pandemic affected programming and vaccine uptake. Second, semi-structured interviews were conducted with stakeholder between February-August 2023 to gain insights into their experiences with SBIP before and during the pandemic. Third, these data were integrated and mapped with the Behaviour Change Wheel to develop recommendations with stakeholders to leverage facilitators and address barriers to SBIP delivery. Results: The ES highlighted variation in provincial SBIP and small changes in vaccine coverage. Interviews (n=39) identified a range of factors affecting SBIP service delivery and vaccine decision making. Benefits included access to vaccines for adolescents and vaccinating with friends. School staff-HCP relationships could be a barrier or enabler, particularly with high turnover in both professions during the pandemic. Adolescents played a passive role in vaccine decision making. Prioritized recommendations included re-designing consent forms, identifying anxious students ahead of clinics, and developing parent-adolescent vaccine decision making aids. Conclusions: Continued efforts are needed to ensure SBIP and catch-up programming remains accessible for all adolescents to catch-up on missed vaccines before graduation. Parents and adolescents' vaccination views suggest changes in vaccine coverage since the pandemic may be due to accessibility of services rather than vaccine hesitancy. Future research is needed to engage adolescents in their vaccine decision making.

Keywords: Public Health, Vaccine Hesitancy, Adolescent Health

Research Area: Population Health Research Method: Qualitative



Frontal plane landing mechanics in individuals returned to sport post anterior cruciate ligament reconstruction

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Abstract

Introduction: A common anterior cruciate ligament (ACL) injury mechanism has been described as landing a jump with excessive dynamic knee valgus. The frontal plane projection angle (FPPA) has been suggested to be a good predictor of dynamic knee valgus. The purpose of this study was to determine if the FPPA in a group of asymptomatic individuals differed from those who have received ACL reconstructive surgery, as well as to determine whether differences exist between affected and unaffected limbs of the ACL reconstruction (ACLR) group. Methods: 20 individuals who received ACL reconstructive surgery within two years and had returned to unrestricted activities, and 25 asymptomatic controls were recruited. Informed consent was obtained. Participants completed a single leg drop jump landing from a box height of 30 cm while lower limb motion was recorded using retro-reflective markers placed on standardized lower limb locations. An eight camera Qualisys® OQUS motion analysis system was utilized. FPPA was calculated using the greater trochanter, knee, and ankle joint centers. Peak angles during the landing phase were extracted. A series of independent and paired t-tests were used to determine differences between the groups and limbs with a Bonferroni corrected alpha (p=0.0167). Results: The FPPA between a random asymptomatic limb and both limbs of the ACL group were not statistically different (p > .0167) but the peak FPPA for the affected limb was greater (11° ± 6°) than the FPPA for the unaffected limb (5° ± 6°) in the ACLR group (p = .0002). Conclusion/Significance: The FPPAs obtained for both groups align with those obtained from previous studies and represent typical values. Greater affected limb FPPA in the ACLR group might suggest abnormal mechanics that relate to ACL injury mechanisms persist despite a return to unrestricted activities post ACLR.

Keywords: Anterior Cruciate Ligament, Biomechanics, Jump Landing

Research Area: Kinesiology/Human Movement Science



An evaluation of the Easter Seals Take PART program: A "Lifeline to Belonging" for children with disabilities

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Abstract

Background: Parasport programs provide children with disabilities opportunities to enhance their physical and psychosocial health through play. Programs based in principles of quality participation and therapeutic recreation have the potential to further exemplify these benefits through thoughtful design of program elements. Easter Seals Take PART (Physically Accessible Recreation Today) is one such program in Nova Scotia. The program recently was modified to intentionally include elements of quality participation and therapeutic recreation; however, it has not been evaluated since that time. This study aimed to understand the perspectives of caregivers of children with disabilities on the therapeutic benefit of Take PART for their child's physical and psychosocial health. Methods: This study employed a program evaluation using qualitative description. Six caregivers of children who attended Take PART programs were recruited and completed a semi-structured online interview. Interviews were transcribed verbatim. Data were analyzed using reflexive thematic analysis. Results: Results illustrated that caregivers observe elements of quality participation and therapeutic recreation embedded in Take PART. Caregivers noted that Take PART is therapeutic for their child. More specifically, caregivers stated that Take PART contributed to their child's physical and psychosocial health. Minor revisions were recommended by caregivers (e.g., marketing, locations, continued programs to adulthood). Significance: Caregivers perceive Take PART to substantially benefit their child's physical and psychosocial health. Caregivers identified the enhanced value of Easter Seals Take PART with its intentionally embedded principles of quality participation and therapeutic recreation. The findings illustrate the importance of thoughtfully designed parasport programs for children with disabilities.

Keywords: Parasport Programs, Adapted Physical Activity, Quality Participation, Children and

Families, Childhood-onset Disability *Research Area:* Recreation and Leisure



Socioeconomic inequalities in prostate cancer mortality in Canada: Three decades trend analysis

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Abstract

Introduction: In Canada, prostate cancer ranks as the most diagnosed cancer among males and stands as the third leading cause of cancer-related deaths, accounting for 10% of all cancer fatalities in males. The purpose of this study was to examine the patterns of socioeconomic inequalities in the mortality of prostate cancer among the Canadian male population from 1990 to 2019.

Methods: Utilizing a dataset compiled at the census division level (n=280) from sources including the Canadian Vital Statistics Deaths (CVSD) database and the Canadian Census of Population (CCP) for the years 1992, 1996, 2001, 2006, and 2016, as well as the 2011 National Household Survey (NHS), we investigated socioeconomic inequalities in mortality rates in prostate cancer among Canadian men from 1990 to 2019. We applied the age-adjusted Concentration index to measure inequalities in mortality linked to income and education levels in Canada. Trend analysis was conducted to evaluate the changes of these inequalities." Results: The average crude prostate cancer mortality in Canada was 24.82 per 100,000 males over the study period. The age-adjusted concentration index showed a higher concentration of prostate cancer mortality among low-income male population in the years 1999, 2001 and 2005. Additionally, we observed higher concentration of mortality among less-educated groups in approximately one-third of the years included in the study. Trend analysis highlighted a growing concentration of prostate cancer mortality rates among low income and less educated males over the study period. Conclusions: The growing concentration of prostate cancer mortality among low socioeconomic status populations in Canada underscores the need for enhanced primary prevention and treatment strategies.

Keywords: Socioeconomic Inequalities, Prostate

Research Area: Population Health Research Method: Quantitative



Early identification of children from minority language backgrounds at risk of language and reading difficulties

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Abstract

Introduction: The number of newcomer children in Nova Scotia has increased (Statistics Canada, 2022). It is crucial to identify children at risk of language or reading disorders who are not proficient in English, given that language and reading difficulties can negatively impact children's academic achievement and development (Bryan et al., 2015). Most screenings are available in English, which limits their use with newcomer children. This study aims to develop a screening tool that flags children from minority language backgrounds who are at risk of language or reading difficulties and that is less language-dependent than other tools. Methods: This study will include 80 bilingual children (ages 4 to 6) and consist of 3 phases. First, we will develop a screening tool that uses cognitive and language processing measures that are less language-dependent than other tools. Then, children will complete the new screening to obtain a baseline measure and 2 established screening tools will also be administered. Finally, children's language and reading skills will be assessed using standardized tests. Anticipated Results: The diagnostic efficiency of the screening tool will be measured using a Receiving Operating Characteristic (ROC) curve against children's performance on the standardized tests. Optimal cut scores for the screening tool will be determined based on cut scores that maximize both sensitivity and specificity, aiming that both values attain a score of at least .80 following best practices for the identification of language difficulties (e.g., Spaulding et al., 2006). Significance: Findings from this study will provide muchneeded information on the identification of children from minority language backgrounds at risk of language or reading difficulties. Early identification of children at risk of language or reading disorders is pivotal to the appropriate provision of support services that contribute to children's social development and academic success.

Keywords: Children, Bilingualism, Language Disorders, Reading Disorders, Screening

Research Area: Health Inequity Research Method: Quantitative



Meeting youth mental health needs using the Choice and Partnership Approach (CAPA): Client and family perspectives

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Abstract

Introduction: The Choice and Partnership Approach (CAPA) has been implemented at the IWK in an effort to transform child and adolescent mental health and addictions (MHA) services into a patient-centered model of care. CAPA incorporates shared decision- and goal-making to actively engage clients and families in the care process. This study aims to investigate how youth and caregivers perceive and experience accessing IWK MHA care, and subsequently examine how their experiences align with CAPA. Methods: Qualitative methods include semi-structured key informant interviews with clients (n=13) and caregivers (n=16) and researcher field notes. Quantitative methods include surveys to collect demographic information. Themes were generated through inductive thematic analyses. Results: Initial results from interviews indicate that clients and caregivers rely on functional (e.g., behaviours, interactions, basic life skills) and symptomatic (e.g., mood) indicators to describe youths' mental health. Desired outcomes of care span function, symptom, and relationship categories; the ability to identify and manage stressors as they come as well as improved mental health status were highlighted as important outcomes. In the absence of goal-based outcome measures, youth largely relied on clinicians' feedback, behaviours, or body language to know they had made progress. Conclusion/significance: Understanding and promoting client and caregiver perspectives and experiences is essential to patient-centered mental health care and supports the alignment of client and system goals.

Keywords: CAPA, Patient-Centered Care, Needs-based Approach

Research Area: Mental Health/Addiction



Jumping-to-conclusions bias promotes hesitancy toward vaccines and overconfidence ability to gather information

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Abstract

Introduction: Many vaccine resistors claim that they arrived at their beliefs after thorough research and critical evaluation of the evidence. Is this truly the case? The jumping to conclusions (ITC) bias describes the tendency for people to draw overconfident conclusions after seeing a limited amount of evidence. Those with a strong ITC bias are prone to belief in conspiracy theories, and those who are conspiratorial tend to resist vaccines. Methods: Five studies (N = 1,412) examined whether vaccine resistors tend to recruit large amounts of evidence (as many of them claim) or little amounts of evidence (as suggested by correlates of the JTC bias) before reaching conclusions. The original JTC bias task has a person gathering information (i.e., coloured fish or marbles) to make a probabilistic decision. Using this framework, we developed a new version of the JTC bias task in which participants had to gather information about a proposed new vaccine prior to providing their opinion. Results: JTC bias scores correlated positively with vaccine hesitancy and vaccine skepticism (Studies 1a and 1b), even when controlling for plausible third variables that predict vaccine resistance (Study 2). Additionally, participants who recruited less information to learn about a novel vaccine had more negative views of it (Study 3). Finally, the relationship between how much information a person chose to recruit about a vaccine and how well they did in searching for information was fully mediated by the overconfidence experienced from shallow information searches (Study 4).Conclusions/Significance: Vaccine resistors tend to consult less information than vaccine acceptors before reaching conclusions. These findings highlight the importance of reducing sources of vaccine misinformation, while identifying a barrier to public health goals.

Keywords: Jumping-to-Conclusions (JTC) bias, Health Decision-Making, Vaccine Hesitancy



Does motor imagery drive performance changes through effector mapping?

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Abstract

Introduction: This study aimed to determine whether motor imagery improves performance by rehearsing and strengthening effector mapping using a complex, computerized fine-motor pointing task. Motor imagery has been shown to be important in stroke rehabilitation and mental training in sports. An improved understanding of the mechanisms underlying motor imagery in the stages of motor execution will allow us to better utilize motor imagery in its different applications. Methods: In this study, participants (n = 105) were assigned to one of three experimental groups: a physical practice group, a motor imagery group, and a control group. Participants will complete a novel, complex, computerized fine-motor pointing task. The response times of the fine-motor pointing performance were compared between and within groups to analyze performance. Results: Motor imagery strengthened novel effector mapping and significantly improved their performance compared to the control group (p = 0.0076), supporting the hypothesis that motor imagery rehearses and strengthens effector mapping. Conclusions/Significance: Collectively, our results give insight into how motor imagery operates compared to physical practice. Our results also support prior motor imagery theories that show motor imagery maps to motor execution stages. Our findings give insight into how motor imagery can be used in motor learning to improve motor execution, which can translate into clinical practice and other applications.

Keywords: Motor Learning, Motor Imaginary, Effector Mapping

Research Area: Kinesiology/Movement Science

Research Method: Mixed Methods



Age-specific differences in structural and functional pain mechanisms in individuals with knee osteoarthritis

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Abstract

Introduction: Knee osteoarthritis (KOA) affects over 4.4 million Canadians[1], with many people experiencing pain and functional deficits before receiving a formal disease diagnosis [2]. KOA is most common in the elderly; yet, a growing younger affected population demonstrates disease complexity [3], [4]. Pain is the most common symptom of KOA, but its personal nature complicates between-person comparisons and challenges generalized treatments [5], [6]. This research aims to detect age-specific features in structural, biomechanical, and neuromuscular outcomes, which may help identify pain mechanisms earlier in the disease process [3], [7]. Methods: Individuals with clinical KOA, aged <50 years (n=15) and 50+ years (n=15), will be recruited from clinicians and the community. Participants will undergo radiograph and ultrasound imaging to quantify structural features. Pain quantification will combine mechanical methods, pressure-pain algometry and von Frey monofilaments, with questionnaires assessing symptoms, function, and quality of life [7]–[11]. Gait analysis using motion capture during walking and stair use will quantify biomechanical and neuromuscular outcomes. Independent T-tests and analysis of variance models will test statistically significant relationships across variables. Anticipated Results: Structural, biomechanical, and neuromuscular features are hypothesized to differ across age-groups, as tissue degradation, muscle loss, and decreased mobility are associated with aging. Observation of the younger cohort enables examination of pain mechanisms while minimizing the confounding effects of aging. Significance: Interpreting personal pain responses during daily tasks is critical for quality of life improvement and early intervention. Understanding structural and functional features associated with pain mechanisms offers a promising strategy for optimizing tailored rehabilitation programs and pain management that may be age-specific for individuals with KOA.

Keywords: Knee Osteoarthritis, Aging, Pain Mechanism, Joint Imaging

Research Area: Clinical Research Research Method: Quantitative



Exploring Primary Care Delivery to People with Dementia: An Independent Study

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Abstract

Introduction: Primary care practices are well situated to support people with dementia in the community setting, but how can we best support providers in the evolving context of primary care? This independent study aimed to explore current practices and perceived barriers to primary care provision for people with dementia and investigate what approach to knowledge translation would best suit this fast-paced environment. Methods: To gain an understanding of the context in which primary care providers uptake and implement new knowledge, two brief literature reviews were conducted using both CINAHL and PubMed databases. The first literature review focused on existing primary care delivery to people with dementia, while the second prioritized knowledge translation within this same context. From these reviews, two major findings became apparent: (1) shared decision making is an emerging model for primary care delivery to people with dementia that is challenging to integrate due to communication barriers and (2) provision of concise educational materials to care providers is an effective form of knowledge translation due to time constraints within the primary care context. Results: An educational knowledge translation (KT) tool entitled "Communication Tips to Engage People with Dementia in Shared Decision Making" was created based on major findings from the literature reviews. The tool first provides a brief justification for the need to engage this population in shared decision making and then explores tips that primary care providers could implement to foster improved communication practices. Significance: This independent study, completed under the guidance of Dr. Elaine Moody and funded by the Faculty of Health Undergraduate Summer Research Award, serves as an example of how research findings can be created, summarized, and translated at the undergraduate level. Dissemination and analysis of the effectiveness of this KT tool could serve as a graduate level project.

Keywords: People with Dementia, Primary Care, Knowledge Transition, Shared Decision Making *Research Area:* Population Health *Research Method:* Qualitative



Exploring Dietetic Students' Experience of Cultural Competence and Cultural Humility Education

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Abstract

Introduction: Cultural competence and cultural humility (hereafter referred to collectively as CCH) are foundational concepts in undergraduate and practicum dietetics programs accredited to train students to become Registered Dietitians. CCH concepts continue to become more prevalent and integrated in education and training in the field of dietetics and healthcare fields alike to actively address and embody equity, diversity, and inclusion. However, no research to date has explored the student's experiences of or attitudes towards learning about CCH and CCH education. This research will serve as a pioneering study to shed light on the subject matter and contribute to the existing literature on dietetic health professions education. Methodology and Method: Guided by Interpretive Description methodology, qualitative data was collected via semi-structured interviews with students enrolled in their third or fourth year of an accredited undergraduate dietetic program in Nova Scotia, Canada. Results: Preliminary results show that students are only superficially exposed to CCH education, feel unprepared to translate their CCH knowledge into real-world dietetic practice, and are unsure of the practical applications of CCH. Students' experiences of and attitudes toward CCH education are shaped by various aspects of their culture, such as their race, ethnicity, and upbringing. With students' experiences and attitudes interlaced with their own culture and identity, CCH education can be a personal and emotional education experience for students. Significance: These results underscore the need for a more informed and safe integration of CCH education practices and pedagogical approaches into undergraduate dietetics education. Exploring dietetic students' experiences of learning about CCH is a first step toward understanding and redressing their concerns and, ultimately, toward creating a more inclusive and equitable environment within the field of dietetics and healthcare.

Keywords: Cultural Competence, Cultural Humility, Cultural Competent Care, Dietetic Students,

Dietetic Education

Research Area: Health Inequity Research Method: Qualitative



Exploring Patterns of Emergency Department Use for People Experiencing Homelessness in New Brunswick

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Abstract

Background: Homelessness is a complex and growing issue that negatively affects both individuals and communities. People experiencing homelessness (PEH) tend to have lower usage of primary care, which forces a burden on acute care services such as the emergency department (ED). PEH are less likely to have a family doctor, more likely to have multiple ED visits within a year and have higher rates of visits due to addiction and mental health conditions. Methods: ED data from the cities of Fredericton, Saint John, and Moncton will be used. Patients are defined as homeless if they have a non-standard postal code or if homelessness is mentioned in their record. We will explore differences in the volume of ED contacts, reason for visit, triage level, and having a primary care provider for PEH and controls. Nearest neighbour propensity score matching will be used to pair patients on facility, age, and gender to identify a comparable sample of controls. Open access rental data will be used to evaluate the effect of city-level rental price trends on the presentation of PEH to the ED. Anticipated results: We would expect that PEH appearing in the ED would be predominantly male and middleaged. The reason for ED visit may to differ for PEH, with higher rates of addiction or mental healthrelated visits. The presentation of PEH to the ED is expected to increase with rising housing prices. Conclusion: The findings will have significant implications to inform policy decision-making on housing and the provision of healthcare services for PEH. Targeted policy improvements on housing will improve the health of PEH and reduce healthcare costs.

Keywords: Homelessness, Healthcare Utilization, Epidemiology

Research Area: Health Inequity Research Method: Quantitative



What are the top 10 research questions related to obesity care in Canada? Protocol for a James Lind Alliance

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Abstract

Background: Obesity is a progressive chronic disease. A new Canadian clinical practice guideline for managing adult obesity was released in 2020. The guideline recommends people with obesity have access to timely, evidence-informed obesity care. Obesity care is defined as services for the management of obesity. To inform optimal obesity care, research that is driven from lived experience is needed. This study aims to conduct a James Lind Alliance Priority Setting Partnership (JLA PSP) to determine obesity care research priorities. Methods: Informed by a steering committee of people with lived experience (people living with obesity, people who support their care, health and social care providers), we will gather uncertainties, discuss, and set research priorities related to adult obesity care in Canada. The JLA PSP process will involve: (1) gathering suggestions through an open survey, (2) ranking questions and shortlisting topics through a second survey, and (3) deciding on research priorities through a prioritization workshop. Anticipated Results: People with lived experience will be able to speak to the complex realities of obesity care. We anticipate hearing meaningful insights from people with lived experience and that these insights will support us to identify and prioritize the top 10 research questions related to adult obesity care in Canada. Significance: Findings of this JLA PSP will enable the creation of an obesity care framework in Canada and will amplify the voices of adults living with obesity, their families, and their health and social care providers to inform and support future obesity care research.

Keywords: Adult Health, Health Care, Obesity Care



The mobility profile and factors associated with mobility of long-term care residents with dementia Canadian provinces

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Abstract

Introduction: Mobility is an important health determinant in older adults with chronic health conditions like dementia. In long-term care (LTC) homes in Canada, the nature, and determinants of mobility of people living with dementia have not been reported. We described the mobility of residents living with dementia in LTC homes and determined factors associated with mobility. Method: Using a retrospective analysis of cross-sectional data, we analyzed data collected with Minimum Data Set 2.0 and the interRAI LTC Facility assessment for Ontario, Manitoba, British Columbia, and Alberta between March 2021 and March 2022. Mobility was assessed via the ADL Long Form Score. Descriptive statistics was used to analyze the mobility profile of the residents and the multivariable General Linear Model was used to determine factors associated with mobility. Results: We included 79773 residents with a mean (SD) age of 86.17(8.00), of which 68.55% were female. The mean score in the ADL Long Form was 18.51(6.40) indicating moderate mobility impairment. We identified a high prevalence of mobility impairment among the residents with walking activities as the most impaired. The result of the GLM analyses showed a significant association (p<0.01) between mobility and age, cognitive status, depression, health instability, receipt of physical therapy, and social engagement. Significance: We described mobility impairment and some modifiable risk factors among residents living in LTC homes in Canada. This knowledge can be applied in the development of mobility interventions with this population.

Keywords: Mobility, Dementia, Long-term Care, Ageing, Activities of Daily Living



Black Women in Nonprofit Organizations

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Abstract

Introduction: Society depends on charitable non-profit organizations for food, shelter, education, and so many other social services. The health and global economic crisis caused by COVID-19 highlighted how important nonprofit organizations are as they were tasked with providing even more support to the communities they serve. Whilst employee health and wellness are integral to the successful operation of a nonprofit, there is a growing problem of mental and emotional burnout among nonprofit workers which has negatively impacted employee retention. members. Methods: I aim to conduct in-depth semi structured interviews with 20 Black Women who live in the Nova Scotia. The interviews will focus on participants' experiences in nonprofit; effect of workplace wellness policies; and the ways these experiences are perceived in relations to their intersectional identity. This study draws on the work of Kimberlé Crenshaw on intersectionality and critical race theory, which will theoretically ground the methodology of the study. Anticipated results: One primary outcome expected from this research is the identification and exploration of challenges specifically faced by Black women within nonprofit settings. These challenges may encompass barriers to career progression, disparities in treatment, and the intricate intersectionality of race and gender. Significance: With an understanding of the challenges faced by nonprofit employees presented through the lens of Black women, this study can help inform social policies and practice that seeks to improve employee wellbeing and also provides an avenue for organizations to think of ways to improve the health of their staff.

Keywords: Black Health, Social Determinants of Health, Intersectionality

Research Area: Health Inequity Research Method: Qualitative



Exploring how youth with Juvenile Idiopathic Arthritis and their caregivers react to pain-related stigma: a proposal.

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Abstract

Background: Juvenile Idiopathic Arthritis (JIA) is a chronic inflammatory condition associated with pain in childhood. Youth with JIA are at risk of experiencing negative judgement from others about their pain symptoms (i.e., pain-related stigma). According to the Pain-Related Stigma Model in Adolescents with Chronic Pain (Wakefield et al., 2018), this is because the cause of JIA is unknown, and the source of their pain is often unobservable. Adolescents with JIA can experience pain-related stigma in the form of pain dismissal or disbelief. This can negatively impact the physical and psychological health of those who are affected (e.g., greater perceived pain severity and decreased self-esteem). However, the extent to which pain-related stigma impacts health outcomes is partly determined by how people react to this adversity. The goal of this study is to explore how youth with JIA and their caregivers react to pain-related stigma in the moment and over time. Methods: 15 youth with JIA (aged 13-18) and their caregivers will complete separate semi-structured interviews. They will be asked about their (or their child's) experiences of pain-related stigma and how they reacted to these experiences in the moment and over time. A reflexive thematic analysis approach will be used to analyze the data and generate themes from participants' responses. The youth and caregiver data will be analyzed separately. Anticipated Results: The resulting themes will describe different ways that youth with JIA and their caregivers may react to pain-related stigma in the moment and over time. Conclusion: This study is an essential next step for understanding how pain-related stigma impacts the health outcomes of youth with JIA and their families. The results of this study will help inform adaptations to healthcare practices that can help mitigate the harmful effects of pain-related stigma for youth with arthritis pain and guide future research on this topic.

Keywords: Arthritis, Chronic Pain, Pain-related Stigma, Youth, Caregivers



Exploring patient and family perspectives on a function-based care model in pediatric rehabilitation

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Abstract

Introduction: Care models in pediatric rehabilitation have shifted from focusing on impairment to focusing on function. There is evidence to support function-based care in clinical practice. However, it is important to understand how this change in care has been perceived by patients and families. The purpose of this study was to explore patient and family perspectives (perceived benefits, areas for improvement) on the recent shift to function-based care. Methods: Using a qualitative description approach, we conducted 14 semi-structured interviews with youth patients or their caregivers who were patients at the IWK Kids' Rehab Clinic (Halifax, Nova Scotia, Canada) for ≥5 years. Data were transcribed verbatim and analyzed using reflexive thematic analysis. Results: Four themes were generated: 1) Shifting focus from diagnosis to function: most participants noticed the care transition; 2) Learning to be an active participant in your care: highlights patient and families as experts in their own health and providing education on self-advocacy; 3) Expanding networks of care to collaborate on goal setting: notes the importance of extending the interprofessional team and including patients and families in decisions around care; 4) Continuing quality service: where patients and families identified benefits, and made recommendations to further enhance care. Significance: Findings of this study highlight the patient and family experience in function-based care in a pediatric rehabilitation setting. Patients and families wish to be active participants in their care. The findings can help support health centre staff and clinicians to further improve services for patients and families.

Keywords: Pediatrics, Rehabilitation, Function

Research Area: Clinical Research Research Method: Qualitative



Engaging youth to take action to promote their well-being: Methods and findings from a knowledge mobilization project

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Abstract

Introduction: The One Chance to be a Child Report provided an evidence-informed data profile of well-being among children and youth in Nova Scotia, Canada. The report showcased an immediate need to act on six recommendations in the province that would improve the well-being of children and youth. To action these recommendations, we conducted a knowledge mobilization project where youth were engaged in reflecting, discussing, and acting on the report through the planning and implementation of a youth-led forum. The purpose of this research is to outline the methods, as well as the priority areas identified and delivered at the youth-led forum. Methods: 10 Nova Scotian youth between grades 7-12 were recruited to form a Youth Leadership Team. An adapted version of the Future Workshop approach guided the project, allowing youth to envision the changes they want to see in the world. This comprised a two-phased approach:1) A sense-making workshop for youth to learn, reflect and discuss the report recommendations, and 2) The planning and delivery of a youth-led forum to engage decision-makers in dialogue around the priority areas they identified. Data were collected through audio-recordings, note-taking, and pictures of all materials. Data analysis will be through direct content analysis and is ongoing. Anticipated Results: This study will provide a comprehensive overview of the methodological process used to engage youth in a knowledge mobilization project as well as outline the main priority areas identified, discussed, and actioned at the youth-led forum. Conclusion / Significance: Implementing the One Chance to be a Child recommendations in consultation with youth ensures that their voices are being heard and their well-being needs are adequately addressed through priority actions.

Keywords: Children and Youth, Well-being, Knowledge Mobilization



Mutational Analysis of Nmyristoyltransferase to Classify Thyroid Tumours

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Abstract

Introduction: Indeterminant cytology is a challenge for pathologists for differentiated thyroid cancers (TC). Both adenomas and carcinomas have similar cytomorphology, making it difficult to differentiate without invasive procedures. The current diagnostic protocols include screenings, fine needle aspiration, and surgeries, all of which are invasive and inefficient in differentiating between the different thyroid tumor types. The indeterminate diagnosis of the different thyroid tumor types leads to cancer risks of 15% - 30%. A major wave with molecular markers may provide potential support to differential diagnosis. Research Objectives and Methodology: I aim to investigate the gene expression of N-myristoyltransferase 1 (NMT1), N-myristoyltransferase 2 (NMT2), Insulin growth factor receptor 1 (IGF1R) and Claudin 1 (CLD1) by performing quantitative polymerase chain. The regulation patterns of these genes will determine its validity as a prognostic marker for Differentiated TC and whether it would be able to identify between the different thyroid cancers. Similar aim is carried out for the protein expression where Immunohistochemistry is performed using tissue microarray to analyze the expression patters of NMT1, NMT2, IGF1R and CLD1. Furthermore, I plan to identify the mutations found in NMT1 and NMT2 related targeted gene-panel by targeted next generation sequencing that could further refine the differentiation of TC subtypes. Results and Conclusion: The expression and mutational analysis will entail the correlation of gene expression with the specific thyroid tumors in questions. Other than operative approaches for the diagnosis of nodules concerning papillary and follicular cytology do not exist, leading to false positive cases that receive unnecessary surgeries that could cause further implications that could have been avoided. My research will allow us to distinguish between different TC without operative procedures reducing risks of implications.

Keywords: Differentiated Thyroid Cancer, N- myristoyltransferase, Mutational Analysis

Research Area: Clinical Research Research Method: Mixed Methods



The effect of the COVID-19 pandemic on delirium incidence in Ontario long-term care homes: A retrospective cohort study

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Abstract

Introduction: Long-term care residents are at an increased risk of developing delirium. The execution of evidence-based delirium prevention strategies experienced a barrier in 2020, when the sector faced the COVID-19 pandemic. Research regarding the implications of the pandemic on delirium incidence has mainly focused on the hospital setting, leaving much unknown about the effect in long-term care. Methods: This retrospective cohort study included Ontario long-term care residents without baseline delirium or severe cognitive impairment, and who had been assessed between February 1, 2019, and March 31, 2021. Data was collected from the interRAI Minimum Data Set (MDS) 2.0. The outcome of interest was delirium development. Selected independent variables were entered into univariate longitudinal generalized estimating equations, followed by multivariate analysis. Results: A total of 63,913 residents were included within the comparison sample and 54,867 residents in the pandemic sample. Incidence of delirium in the comparison sample was 3.4% compared to 3.2% in the pandemic sample (P = 0.06). Residents who were older, cognitively impaired, and increasingly frail had greater odds of developing delirium. Increased odds were associated with a diagnosis of bipolar disorder (OR 1.27, 95% CI 1.07-1.51) and anxiolytic use (OR 1.12, 95% CI 1.01-1.25). Residents who were newly admitted (OR 0.65, 95% CI 0.60-0.71) and those dependent for activities of daily living (OR 0.46, 95% CI 0.33-0.64) had lower odds of delirium development. Conclusions: The COVID-19 pandemic did not have an effect on delirium incidence, proposing that preventative interventions employed by long-term care homes were effective. Longterm care residents who are older, frail, cognitively impaired, or have unstable health would benefit from targeted interventions to prevent delirium. Residents newly admitted or dependent for ADLs who develop delirium may go unrecognized.

Keywords: Delirium, COVID-19, Long-term Care, Pandemic

Research Area: Clinical Research Research Method: Quantitative



Child and Adolescent Mental Health and Addiction Services: Virtual Care and Access to Services

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Abstract

Introduction: Virtual or virtual/in-person hybrid models of care may support access to child and adolescent mental health services at IWK Health. However, factors related to the implementation of hybrid models of child and adolescent mental health services are not understood. Objectives: (1) Map the factors that have been proposed or studied related to the implementation, delivery, and uptake of formal virtual mental health services for children and adolescents. (2) Identify factors related to uptake of virtual child and adolescent mental health services in Nova Scotia. Methods: Objective 1 - Scoping review of the formal and grey literature related to formal virtual mental health services for children and adolescents (age 0-18 years). Key findings will be presented in a tabular manner and in a narrative overview. Objective 2 – Secondary analysis of a cross-sectional survey of youth (12-18 years) and parents of children ages 4-18 years between June 2021 and April 2022. Sociodemographic characteristics, service use, and mental health measures will be summarized using counts and means. Barriers to care will be compared among users and non-users of mental health services using parametric or non-parametric tests. Associations between predictor variables and receipt of MHA services will be estimated using logistic regression and 95% confidence intervals. Anticipated results: We expect to map a diverse body of literature capturing contextual factors identified in the implementation of virtual or hybrid child and adolescent mental health care. We anticipate identifying barriers to care for those who had mental health care needs but did not or were not able to access services. Significance: Virtual mental health care may be an important strategy to support access to youth mental health services. The findings will be used for service planning.

Keywords: Mental Health, Children and Adolescent, Virtual Care

Research Area: Mental Health/Addition Research Method: Mixed Methods



The association between communication impairment and rehabilitation receipt for long-term care residents with dementia

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Abstract

Introduction: Most long-term care residents live with dementia. Reduced physical function and impaired communication is prevalent in residents with dementia. However, they often receive limited amounts of physical or occupational therapy. Communication impairment is a common characteristic for people with dementia, and impaired communication has been found to decrease a person's healthcare participation. Objective: To examine the association between communication impairment and receipt of physiotherapy and occupational therapy in long-term care residents with dementia. Methods: A cross-sectional study was conducted using data from the Resident Assessment Instrument 2.0 from Ontario long-term care homes between 2015 and 2019. Adjusted odds ratios and 95% confidence intervals were obtained from multiple logistic regressions, examining the association between communication variables and receipt of physiotherapy or occupational therapy. Results: Residents with dementia were less likely (odds ratio, 95% CI) to receive physiotherapy or occupational therapy if they had an impaired ability to make oneself understood (0.73, 0.69-0.78), understand others (0.68, 0.63-0.72), hear (0.88, 0.80-0.98), or produce speech (0.76, 0.58-0.99). Conversely, residents with dementia were more likely to receive physiotherapy with intervention techniques in place, including using a hearing aid (1.41, 1.34-1.49), other receptive communication techniques (e.g., lip reading) (1.21, 1.02-1.44), and other modes of expression (e.g., flash cards) (1.27, 1.04-1.56). Conclusion: Residents with dementia and communication impairments were less likely to receive physiotherapy or occupational therapy. When interventions to aid communication were put in place, residents with dementia were more likely to receive physiotherapy. Therefore, communication impairments are a barrier to be addressed to improve receipt of rehabilitation.

Keywords: Rehabilitation, Dementia, Ageing, Communication

Research Area: Clinical Research Research Method: Quantitative



Caregiver perspectives on the role of community spaces and services in children's physical activity during COVID-19

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Abstract

Introduction: Physical activity (PA) in early life is critical for a child's development, health, and wellness. Communities can promote PA for children and youth by providing them with safe and supportive environments. During the COVID-19 pandemic, many community spaces, and services in Nova Scotia (NS) were closed due to public health restrictions, limiting children's opportunities for movement. A deeper understanding of the way in which these restrictions and closures impacted children's PA is necessary to get an appreciation of the value of community spaces and services for supporting children's PA here in NS. Objective: This study explored NS caregivers' perception of the role of community spaces and services, and pandemic-related restrictions, on their child's PA. Methods: We employed a qualitative description approach and conducted semi-structured, one-onone interviews with fourteen caregivers of children aged 5-11 years who lived in NS, Canada. The interviews were analyzed using reflexive thematic analysis. Results: Four themes were generated: 1) Public health restrictions limited movement behaviours and social connections, 2) Spaces, locations, and environments were essential to how 'community' was experienced during public health restrictions, 3) Virtual realities were created, limiting movement opportunities, and 4) Public health restrictions changed family dynamics, routines, and movement behaviours. Conclusion: Caregivers expressed that the COVID-19 public health restrictions limited children and youths' access to community spaces, supports, and services. These restrictions further limited children's engagement in PA and altered families' daily routines. Now that public health restrictions have been lifted, children and youth are re-engaging in their communities and PA. In future public health crises, community spaces and services should remain in place to reduce the collateral consequences of public health restrictions on children's health.

Keywords: Community, Movement, COVID-19, Children *Research Area:* Kinesiology/Human Movement Science

Research Method: Qualitative



A Good Death: A Scoping Review on Non-Clinical Interventions to Reduce Inequities in Palliative Care for LGBTQ+ People.

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Abstract

Introduction: People who identify as lesbian, gay, bisexual, transgender and queer (LGBTQ+) experience health disparities across the lifespan, including at end-of-life. Despite increased interest in the inequities in palliative care experienced by LGBTQ+ people, existing review studies have focused on older LGBTQ+ people and/or those with cancer, predominantly through a clinical and patient-level lens. Recently, there has been recognition of the value of health promotion approaches to palliative care that address the social and structural determinants of a good death; however, current literature aiming to improve the quality of palliative care for LGBTQ+ people often overlooks these approaches. The purpose of this study is to identify the types of non-clinical interventions presented in the literature regarding palliative care for LGBTQ+ people. Methods: A scoping review will be conducted using the Arksey and O'Malley (2005) framework. PubMed, Embase, Cochrane, Academic Search Premier, Gender Studies, and CINAHL will be searched using keywords. Articles will be screened by two reviewers. The socio-ecological model will be used as a lens to organize themes, centering the types of interventions found. Anticipated Findings: This study aims to unveil gaps in the literature on non-clinical interventions regarding palliative care for LGBTQ+ people. It is anticipated that a wide range of approaches will be found, including LGBTQ+ specific ones and those that could be applied to other minority populations as well. Using the socio-ecological model, the benefits and barriers of these interventions will be summarized. Significance: This study will provide guidance on how to meaningfully improve palliative care for LGBTQ+ people. The findings will synthesize the available literature on non-clinical interventions for palliative care for LGBTQ+ people, which could be used to inform policy and practice changes across healthcare provider, community, and structural levels.

Keywords: LGBTQ+, Palliative Care, End-of-life, Interventions, Inequities

Research Area: Health Inequity Research Method: Qualitative



Promoting well-being: Access and Inclusion to childcare and early learning for children with disabilities in Nova Scotia

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Abstract

Introduction In Canada, inclusive early learning and childcare programs strive for equitable access, but children with disabilities face exclusionary practices. This negatively affects their well-being and contributes to health disparities. In Nova Scotia, inclusive childcare programs have lower quality compared to other provinces due to inadequate policies. Consequently, this exclusion and limited access to support services increase health inequities for children with disabilities and their parents, impacting their well-being. Methods This study will employ a critical ethnographic approach informed by critical disability studies and ecocultural theory as its methodology. Various research methods will be utilized, including interviews conducted with children, parents, and service providers; observations conducted within early childhood education centers; and analysis of policy and practice documents at the federal, provincial, and local levels. Reflexive thematic analysis will be employed to derive findings from the collected data. Anticipated Results The research addresses the recommendations of the One Chance to be a Child report in Nova Scotia, focusing on enhancing the well-being of children with disabilities. It aims to prioritize research that improves inclusion in services, while also examining societal barriers that restrict inclusion and well-being. Conclusions The research findings are positioned to inform inclusion policies and practices to improve inclusion and belonging and promote well-being for children with disabilities and their families. Decisionmakers and service providers can utilize these findings to address barriers and meet the needs of families with disabilities, ensuring access, inclusion, and overall well-being. This aligns with Canada's commitment to accessibility, inclusivity, and universal childcare policies.

Keywords: Inclusion, Health and Well-being, Early Learning, Children with Disabilities, Childcare

Research Area: Health Inequity Research Method: Qualitative



The Lens of a BIPOC Professional in the TR Field

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Abstract

Introduction Therapeutic recreation or recreational therapy is an evolving field that uses recreation and leisure to reach diverse populations. The purpose of this quantitative study was to share the stories of the lived experineces of BIPOC professionals in the TR field. This was meant to share insights from these professionals and how they see diversity in the field and what changes could be made in the future for the field. The study was not meant to attack the White counterparts. The research question for the study is: What is the lived experience of BIPOC professionals in the TR field? Methods This study examined the experiences of six BIPOC TR professionals who work in the TR field for at least a year. The participants shared their experiences in interviews. Results/Anticipated Results The key findings revealed from the interviews were: (1) diversity awareness, (2) challenges of a being a BIPOC professional and (3) words of wisdom for future practitioners, colleagues and the public. Conclusions/Significance If a discipline is diverse, then the providers should be diverse. Further research and open spaces for dialogue among colleagues, future practitioners, students and the public will be beneficial to create a diverse field.

Keywords: Therapeutic Recreation, BIPOC Professionals, Lived Experience, Diversity

Research Area: Recreation and Leisure

Research Method: Qualitative



Bringing care home: Applying the continuum of care model to aging in place supports for senior food security

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Abstract

Introduction Aging in place supports are a top priority for seniors and health system administrators alike. However, with a vast range of interventions and key players ranging from multinational corporations to local churches, the landscape of aging in place supports is difficult for seniors and service providers alike to navigate. Collecting data and coordinating services is more challenging still. A continuum of care is a planning tool that maps out the spectrum of services for a particular need, enabling better patient navigation and service planning. This research piloted its use for aging in place services by developing a model and applying it to in-home services for senior food security in St John's, NL. Methods Research was conducted in four phases: 1) literature review on effective aging in place services for senior nutrition and continuum of care models 2) semi-structured stakeholder interviews on local services and unmet senior food security needs 3) data analysis and 4) continuum model development. Results This project resulted in 1) a specific map of and insights into the current landscape of aging in place nutrition supports in St John's, NL and 2) a general continuum of care model for aging in place senior food security supports any jurisdiction can use to aid in service planning. Significance Wrapping services around the home aligns senior services with senior preferences, and enables them to age in place in dignity and well-being. Federal and provincial decision-makers have also prioritized a shift toward home-based care as a critical part of making Canadian health systems more sustainable and responsive to changing national demographics. In addition to food security, this continuum of care model can be adapted to additional parts of the aging in place service landscape, such as frailty prevention, mental health, and more.

Keywords: Aging in Place, Food Insecurity, Continuum of Care



Effects of Immersive Virtual Reality on Youth with Autism Spectrum Disorder

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Abstract

Introduction: Virtual reality has the capacity to provide significant benefits to individuals diagnosed with autism spectrum disorder. Virtual reality has previously been found to be beneficial in improving the lives of those diagnosed with autism, but the effects of immersive virtual reality have not been extensively studied. The goal of this study is to study the effects of immersive virtual reality on people with autism to help practitioners in the decision process of selecting therapy. Methods: We searched the online databases PsycInfo, Eric, Medline, PubMed, and SCOPUS which yielded 3027 results. Once the inclusion/exclusion criteria were applied, 12 studies remained to review. Results: Immersive virtual reality interventions showed significant increase in targeted behaviours in the VR environment (VRE) which suggests a VRE is an effective learning environment for youth with autism. Although head mounted devices provide the participant with an immersive virtual reality experience, evidence suggests VR room environments provide a more satisfactory and motivational environment resulting in better outcomes than the less immersive head mounted devices. Conclusion: Evidence shows that immersive virtual reality can be successful in improving the lives of those diagnosed with autism and has a positive effect on social skills, emotional behaviours, communication, cognitive functioning, and phobias in users. It is a viable therapeutic intervention as it has shown to be effective and accepted in the youth population with autism spectrum disorder. More research should be completed to develop immersive virtual reality for a clinical setting and to study the generalizability and long-term impact of immersive virtual reality.

Keywords: Autism, Virtual Reality, Youth, Social Skills

Research Area: Mental Health/Addiction

Research Method: Quantitative



Anti-Black Racism and Children's Pain Management: A Proposal

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Abstract

Introduction: While 20% of children experience chronic pain, Black populations are disproportionately impacted. The mechanisms of injustice model allowed an understanding of how anti-Black systemic racism affects adult pain management, but a critical lack of insight into how children's pain management is affected prohibits the ability to create effective child pain management solutions during a period of critical development. Therefore, the aim of this study is to gain an understanding of Black caregivers and children's experiences of the impacts of anti-Black racism on their pain management. Methods: Following the narrative inquiry methodology informed by critical race theory, a methodology that aims to capture the stories of lived experiences for marginalized populations, 2- 6 participants (up to 3 adult caregivers and 3 children between 7-18 years old) who live in Canada and have had pain-related interactions with the Canadian healthcare system, will take part in a semi-structured interview. The participants will be asked a series of openended questions to capture their experiences of systemic racism in pain management. Data will be transcribed verbatim using Zoom technology and cleaned for accuracy. The data will be inductively analyzed through thematic narrative analysis using NVivo software and presented using composite narratives. Anticipated Results: A narrative combining the complex stories of every participant will be created, and it is anticipated that stories of individual pain disparities due to systemic injustices will be detailed. Significance: Understanding child and caregiver perspectives in patient experiences will highlight research gaps in incorporating patient perspectives on anti-Black racism and pain management, as well as help to inform the development of accountability frameworks for healthcare professionals.

Keywords: Systematic Racism, Pain Management, Child, Caregivers

Research Area: Health Inequity Research Method: Qualitative



Applying Watson's Caring Science as a Framework to Reconsider Renal Transplantation Nursing

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Abstract

Introduction: Renal transplantation is a momentous transition for individuals with chronic kidney disease and presents several challenges in their care. Renal nurses have a pivotal role in renal transplant recipient care in the immediate postoperative stage and beyond. However, there are barriers to providing holistic care in a healthcare system impacted by a global pandemic and rising numbers of nursing burnout and turnover. Watson's Caring Science offers a theoretical, ethical, and pragmatic framework to guide authenticity and caring in nursing practice. The Ten Caritas Processes can be considered in applying Watson's Caring Science to nursing care. Despite its benefits, there is a lack of application of Watson's Caring Science in the acute care setting. Methods: Watson's Caring Science guided a literature review of interventions related to the Ten Caritas Processes. These interventions were mapped to each of the Caritas Processes with consideration to renal nursing and the healthcare climate. Results: Each of the Ten Caritas Processes has been considered with respect to their application to the renal transplant setting, and interventions to support nursing care have been suggested. There are challenges to implementing elements of Watson's Caring Science Framework in the acute care setting. Assessing the contextual barriers and facilitators before, during, and after the implementation process can help mitigate some of these challenges. Conclusion: Assessing and implementing interventions connected to the Ten Caritas process can help nurses to meaningfully relate with patients and families, creating caring moments which are supportive of their health and wellbeing, overall resulting in improved nursing and patient outcomes.

Keywords: Caring Science, Kidney Transplantation, Nursing



Sexual Health and Intimacy in the Twilight Years: a TR Perspective

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Abstract

Introduction: Sexual health and intimacy among older adults living in long-term care (LTC) is a complex issue experienced by health care practitioners. Sexuality is considered a taboo topic among many staff, residents and families and concerns regarding sexual health practices often remain overlooked and unaddressed. As Therapeutic Recreation Practitioners (TRPs), it is important to discuss the sexual wellness of older adults and recreation therapy best practices based on a holistic and person-centred approach to care. This research study explored the research question: What challenges do TRPs working in LTC experience when supporting residents' sexual expression and intimacy? Methods: A qualitative exploratory research approach was used to gather 8 one-on-one in-depth semi-structured interviews. Participants were recruited through purposive and snowball sampling. Inclusion criteria included completion of a Diploma or Degree program in TR; having at least two years of professional experience working in LTC; and holding a full-time or part-time job position. The eight interviews were transcribed verbatim. Results: Two major themes emerged from the data: 'Approaches to Care: permissive vs. restrictive', and 'Challenges and Barriers'. The second theme revealed three sub-themes a) determining consent capability, b) organizational structures and systems, and c) attitudes and beliefs. Conclusions: Implications of these research findings highlighted the need to include sexual health in TR's scope of practice; normalization of sexual needs; and lack of resources, such as education and staff training, policies and procedures around sexual wellness, and access to standardized assessment tools to address residents' needs, behaviours and consent capability.

Keywords: Sexual Wellness, Older Adults, Therapeutic Recreation



Exploring risky play for children with sensory disabilities from the caregiver perspective: A qualitative study proposal

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Abstract

Introduction: Engaging in risky play supports children's health, development, and acquisition of crucial life skills. Risky play is a thrilling and exciting form of play that involves uncertainty. Children with sensory disabilities (CWSD; e.g., children with visual or hearing impairments) often have fewer opportunities to participate in risky play. This study aims to: 1) understand how caregivers of CWSD define and characterize risky play; 2) explore CWSD's experiences with risky play from the perspectives of their caregivers; and 3) identify risky play barriers and facilitators for CWSD. Methods: This qualitative descriptive study is part of a larger study supporting the Canadian Disability Participation Project (cdpp.ca). We will conduct semi-structured interviews with 12 Nova Scotian caregivers of CWSD (aged 7-13 years). Interviews will be recorded, transcribed verbatim, and analyzed using reflexive thematic analysis. Anticipated Results: This study will illustrate how caregivers of CWSD perceive their child's risky play. We anticipate that caregivers of CWSD will characterize risky play differently compared to caregivers of children without disabilities. We anticipate results will provide insight into the caregiver perceived benefits of risky play for CWSD and how current and future risky play opportunities for this population can be supported. Anticipated Significance: By exploring how caregivers perceive risky play and how CWSD experience this form of play, this study intends to build a thorough understanding of current risky play opportunities for CWSD. Identifying barriers and facilitators to CWSD's participation in risky play may inform initiatives that support opportunities for risky play for this population.

Keywords: Children with Disabilities, Sensory Disabilities, Risky Play

Research Area: Recreation and Leisure

Research Method: Qualitative



Accessing healthcare in a climate crisis: What is the change?

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Abstract

Introduction: The climate crisis increasingly impacts occupational participation within Canada and globally, including occupations related to accessing healthcare. The United Nations recognizes health as a human right (World Health Organization, 2022). Exploring how Canadians' access to health is going to change is paramount. The occupation of accessing healthcare can be understood as navigating systems level factors that influence healthcare delivery and navigating societal level factors that influence access to healthcare. Objective: The objective of this paper is to explore how the climate crisis has impacted Canadians' ability to pursue and receive healthcare now and in the future. Approach: I present the findings of a critical interpretive synthesis pertaining to the climate crisis and occupations of accessing healthcare in Canada. CINAHL, PubMed, Environment Complete, and Sociological Abstracts databases were systematically searched, and 24 suitable articles were uncovered. 2 more articles were uncovered from the annotated bibliography of the Disability Inclusive Climate Action Research Programme (n=26). Findings: A total of n=23 articles passed the final inclusion screening. Preliminary themes uncovered include: i) current and ongoing changes to healthcare delivery systems, ii) projected increased demand for healthcare, iii) severity of climate change impacts varying across geographical areas, and iv) challenges to accessing health as disproportionately affecting marginalized individuals and communities, specifically Indigenous people and disabled people. Conclusion: Healthcare systems need to begin risk assessments and adaptation planning now to avoid catastrophic healthcare access inequities now and in the future and the public needs to be educated on how the climate crisis will impact their care.

Reference: Human rights. (n.d.). Retrieved October 24, 2023, from https://www.who.int/news-room/fact-sheets/detail/human-rights-and-health"

Keywords: Health Care Quality, Access, and Evaluation, Climate Crisis, Canada



The Impact of fNIRS-based Neurofeedback Training in the Supplementary Motor Area in Healthy Participants

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Abstract

Introduction: Motor rehabilitation and functional capacity after a stroke to this date is still quite challenging which can affect stroke survivors activities of daily living. One potential way to enhance rehabilitation is through neurofeedback. Neurofeedback (NF) entails the use of digital interactive systems that engage an individual in a closed feedback loop based on control theory, using a sensory representation of their brain's activity. It is a non-invasive approach allowing it to be a good technique for activation of specific brain regions. Motor function and recovery methods are typically evaluated in the Motor Cortex of the brain through NF, employing complementary equipment such as Electroencephalograms (EEG's), among others. However, there is little research focusing on the Supplementary Motor Area (SMA), which plays a role in bimanual coordination and exhibits functional specializations related to receiving and processing cues for associative movements, motor behavior planning and executing movements. Purpose: The purpose of the study is to provide proof of concept that Functional Near-Infrared Spectroscopy (fNIRS) based NF can be used to regulate activity in the SMA. Methods: The study will consist of two groups of healthy participants who will either obtain real NF or sham NF data. Each participant will take part in NF sessions and perform bimanual finger movements as a task to upregulate brain activity. These sessions are estimated to take place over a ~ two week period which includes two Magnetic Resonance Imagining (MRI) sessions and five NF sessions. Anticipated Results: It is expected that participants who receive real NF would show an increase in brain activity versus participants who receive sham NF who would have little to no increase in brain activity. Significance: It is the hope that with the use of NF in the SMA, stroke survivors will be able to increase their motor function during rehabilitation by activating this part of the brain.

Keywords: Stroke, Supplementary Motor Area (SMA), Neurofeedback (NF), Functional Near-Infrared

Spectroscopy (fNIRS)

Research Area: Clinical Research Research Method: Quantitative



Impact of Cannabis Use on Brain White Matter in Females With Early Phase Psychosis

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Abstract

Background: Females with early phase psychosis (EPP) and substance misuse have reported less treatment response than EPP males with substance misuse. This study aims to examine whether neuroinflammation in EPP females with cannabis use disorder, as measured by diffusion kurtosis imaging (DKI), is a mechanism for this lack of treatment response. Methods: 23 female patients with EPP, with N= 10 cannabis using and N=13 without cannabis use were recruited to date. Diffusion kurtosis imaging (DKI) was employed to examine the rostral region of the anterior cingulate cortex, specifically radial kurtosis (RK), axial kurtosis (AK), and mean kurtosis (MK) indices were examined in conjunction with cannabis use data. Results: Preliminary analyses of available data indicates that females show significant differences in measures of kurtosis between cannabis users and non-cannabis users. Conclusions: These preliminary findings illustrate significant differences in measures of kurtosis suggesting possible changes in brain white matter neuroinflammation between cannabis using and non-using females. These changes in neuroinflammation could be related to deficits in the cerebral glymphatic system (astroglia cell derived 'waste management' system). An understanding of the underlying poor treatment response in this patient subpopulation could help guide sex-specific treatment for these individuals

Keywords: Early Phase Psychosis, Cannabis Use, White Matter, Brain Imaging

Research Area: Mental Health/Addiction

Research Method: Mixed Methods



Unveiling Unmet Needs: A Call for Action in Understanding Anxiety and Depression Among South Asian Adolescents in Peel

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Abstract

Introduction: There is a notable gap in the literature regarding anxiety and depression among South Asian adolescents aged 12 to 17 in the Region of Peel in Ontario. This emphasizes a lack of attention and awareness within this population and echoes the need for advocacy and policy development. Through an examination of existing literature, this study seeks to highlight the necessity for comprehensive investigations in attempts to enhance the support for the mental health of South Asian adolescents in Peel. Methods: The methodology entails a scoping review and gap analysis of the literature regarding anxiety and depression. Employing a thorough search strategy across 3 databases, PubMed, Scopus, and CINAHL, and grey literature sources, the study focuses on specific demographic and geographical parameters. Rigorous screening will extract and analyze relevant information, enabling the assessment of existing literature gaps and thematic content. This methodical approach lays the foundation for understanding the current landscape and identifying pathways for future research, intervention, and policies. Anticipated Results: Anticipated findings foresee a marked shortfall in comprehensive literature on anxiety and depression among South Asian adolescents, underscoring the urgent need for targeted research and interventions. The analysis may reveal overlooked areas within adolescent mental health, guiding enhanced focus, resources, and tailored approaches to address pressing needs in the Region of Peel. Significance: This gap analysis exposes significant deficiencies in the literature concerning mental health among South Asian adolescents in Peel, emphasizing the critical need for comprehensive research, interventions, and resource allocation. The study's importance lies in its potential to inform policymakers and practitioners about tailored interventions and support systems, paving the way for evidence-based strategies and a more supportive environment.

Keywords: Anxiety, Depression, Adolescents, South Asian Population, Region of Peel



Internal Modelling during Motor Imagery Practice

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Abstract

Introduction: We can learn motor skills in the absence of physical practice through the imagination of movement (motor imagery). Given widespread use of motor imagery in numerous fields including neurorehabilitation, it is critical to understand how learning via motor imagery occurs. Despite this, learning motor skills through motor imagery is not well-understood. One process that may underlie learning of motor skills by motor imagery involves making predictions about movement outcomes and updating these predictions to improve performance (internal modelling). We can study internal modelling through prism adaptation – where participants wear prism lenses that shift the visual field 17 degrees to the left, causing leftward pointing errors. If participants adapt to this prism environment via internal modelling, they demonstrate aftereffects where they point in the direction opposite the prism shift (i.e., rightwards) upon removal of the prism lenses. Methods: To determine if motor imagery practice uses internal modelling, 66 healthy volunteers were exposed to a leftwards prism shift while performing actual pointing movements (physical practice group; PP), imagined pointing movements (motor imagery group; MI), or no pointing movements (control group). If motor imagery practice uses internal modelling, then we will observe aftereffects in the MI group, similar to that of the PP group and unlike that of the control group. Results and Conclusions: After prism exposure, the PP group demonstrated aftereffects, but the MI and the control groups did not. Thus, motor imagery does not appear to use internal models, like physical practice. This suggests that learning motor skills through motor imagery differs from physical practice. The findings have implication for clinicians who use motor imagery in their practice, as approaches may need to be modified to reflect the mechanism by which motor imagery leads to learning.

Keywords: Motor Imaginary, Motor Learning, Internal Models, Prism Adaptation

Research Area: Kinesiology/Human Movement Science

Research Method: Quantitative



Mental Health Outcomes of Refugee Women in Canada: An exploration of the literature

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Abstract

Introduction: Migration and displacement, exacerbated by various distressing factors, pose significant challenges to the mental well-being of refugees. This vulnerability is particularly pronounced among refugee women, who constitute half of all displaced individuals. Extensive research has demonstrated that the period of displacement and post-displacement significantly impacts the mental health of refugee women, leading to conditions such as depression, anxiety, and post-traumatic stress disorder (PTSD). Despite this, there is a notable gap in understanding the mental health outcomes of refugee women in Canada. This study aims to shed light on this issue, providing valuable insights for developing targeted mental health care plans and policies. Methods: A Comprehensive literature review was conducted in October 2023 utilizing the following databases: CINAHL with Full Text, Academic Search Premier, APA PsycINFO, and Social Work Abstracts. Eligible articles were written in English and focused on refugee women living in Canada experiencing mental health issues. Results: From the 175 studies retrieved, fifteen articles were selected for inclusion in this study. The key themes that emerged include (a) the susceptibility of refugee women to violence during migration, leading to elevated levels of PTSD, anxiety, depression, and sleep disturbances; (b) concerns regarding recurrent victimization by service providers during the resettlement process; and (c) the pivotal role of social support in mitigating isolation, improving healthcare accessibility, and enhancing mental health outcomes. Significance: This literature review underscores the need for targeted mental health interventions for refugee women in Canada, given their heightened susceptibility to mental health issues during and after displacement. The identified themes provide a foundation for developing effective policies and care plans to address the unique challenges faced by this vulnerable population.

Keywords: Mental Health, Refugee, Women Research Area: Mental Health/Addiction

Research Method: Mixed Methods



Does habitual moderate to vigorous physical activity improve lung function in children with cystic fibrosis?

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Abstract

Introduction: Cystic fibrosis (CF) is a rare genetic disease that devastates the lungs (1). Treatments to maintain lung function take over 100 minutes daily and pose a significant burden on people with CF and their caregivers (2,3). People with CF are encouraged to do moderate to vigorous physical activity because it can facilitate airway clearance (4). However, evidence supporting the direct benefits of physical activity on lung function is inconsistent (5). The aim of this study is to determine the association between moderate to vigorous physical activity and forced expiratory volume in one second (FEV1) among children with CF. Methods: The study will use data from Project Fizzyo, a longitudinal observational study of 145 children with CF (6). Heart rate was measured as a proxy for moderate to vigorous physical activity using Fitbits for up to 16 months. There is no gold standard for defining moderate to vigorous physical activity in children with chronic conditions; therefore, three criteria will be used (7-9). Lung function was measured routinely during Project Fizzyo and was modelled as a polynomial function to extrapolate predicted FEV1 and to align FEV1 with moderate to vigorous physical activity. Linear mixed-effects models will estimate the association between moderate to vigorous physical activity and FEV1. Biological sex, baseline age, body mass index, and FEV1 will be included as covariates. Since healthier people may be more likely to do physical activity, the analysis will include baseline FEV1 as a confounder and an effect modifier. Anticipated Results: Individuals with more weekly minutes of moderate to vigorous physical activity will have better FEV1 values. Significance: The study is the first to investigate whether moderate to vigorous physical activity, measured via heart rate, improves FEV1 in children with CF. If the association is positive, it may be feasible to complement airway clearance with moderate to vigorous physical activity.

Keywords: Cystic Fibrosis, Physical Activity, Lung Function, Children

Research Area: Clinical Research Research Method: Quantitative



Which Physical Deficits do People Living with HIV Experience? A Web-Based Survey

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Abstract

Background: Since the advent of antiretroviral therapy, people living with HIV (PLWH) are living much longer. However, this increased survival is associated with an emerging threat – a higher prevalence, severity, and impact of co-morbidities than in the general population.

Objectives: The main purpose of this research is to identify physical deficits experienced by people living with HIV. Design: A Mixed Methods Cross-Sectional Study. Participants: We will target two groups of participants: 1. 382 People living with HIV aged 18 or older living in Canada who self-identify as having walking, mobility, or balance difficulties. 2. Rehabilitation professionals (Physical Therapists, Occupational Therapists, Physical and Occupational Therapy Assistants, and Rehabilitation Nurses) and researchers in Canada who work with people living with HIV. Methodology: We will conduct a mixed-methods cross-sectional study including two web-based surveys and qualitative interviews with people living with HIV and HIV rehabilitation professionals and researchers in Canada. The web-based survey for people living with HIV will consist of 3 questionnaires, and we will capture quantitative data on a range of physical deficits. A separate survey consisting of 2 parts will be developed for HIV rehabilitation clinicians and researchers, and thematic analysis will be employed to extract key themes from interview transcripts. Results: The results from this study will assist healthcare providers in determining which types of physical deficits are commonly experienced by people living with HIV. To work will improve assessment methods and help healthcare providers tailor their treatments to the unique needs of people living with HIV.

Keywords: Physical Deficits, HIV, AIDS Research Area: Population Health Research Method: Mixed Methods



How can we identify research priorities around childhood physical disability? A protocol

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Abstract

Background: Childhood physical disability (CPD) refers to an underlying physical impairment or health condition that a child was born with or acquired early in life. Common health conditions include, but are not limited to, cerebral palsy, brain injury, spina bifida, spinal cord injury, neuromuscular conditions, and amputations. There is limited CPD research that is specifically influenced by lived experience. Involving key partners (i.e., patients, families, clinicians) in determining research priorities can ensure research is relevant and lived experience informed. Thus, we plan to conduct a James Lind Alliance Priority Setting Partnership with key stakeholders to identify and prioritize the top 10 research questions about CPD. Methods: We will use the James Lind Alliance Priority Setting Partnership process to identify and prioritize research questions. Informed by a steering committee of patients, families, and clinicians, we will gather uncertainties, discuss, and set research priorities related to CPD. The process will involve: (1) gathering suggestions through an open survey, (2) ranking questions and shortlisting topics through a second survey, and (3) deciding on research priorities through a prioritization workshop. Anticipated Results: Through this process, we will identify and prioritize the top 10 research questions related to CPD. Priorities will be categorized using the International Classification of Functioning, Disability and Health and the "Fwords" in Childhood Disability (Function, Family, Fitness, Fun, Friends, Future). Conclusion: Engaging with patients, families, and clinicians will in research priority setting will support future research to be aligned with the values and preferences of people with lived experience of CPD.

Keywords: Research Priorities, Pediatrics, Physical Disability



Improving accessibility to Mental Health & Substance Use (MHSU) services for Black immigrant youths of African Descent

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Abstract

Introduction - Mental health is often relatable to physical health, referring to a state of wellbeing that incorporates our emotional state, relationship with others, feelings, and ability to adapt to highs and lows in life. Since the pandemic, there have been a rise in the rates of mental health and addiction cases for youths in Canada between the ages of 16-24 yet, this group continue to record the least accessibility to mental health services. Thus, my proposed study will be addressing systemic gaps that adversely affect services to Black immigrant youths of African Descent. Methods - This study will adopt a participatory action research method specifically a photovoice technique as a creative way to examine mental health challenges. This approach is expected to give a voice to these groups of youths, enabling community reflection, promoting critical dialogue, and prompting action through photography. Results - The expected results will be the first substantial evidence that depicts existing challenges of knowledge gap, stigma, lack of cultural competency, financial constraints, discrimination and delays in mental health services accessibility and possible intervention tactics to reduce these issues. Conclusions - There has been limited evidence that have explored the barriers and facilitators to mental healthcare for Black immigrant youths living in Canada. In fact, no single article has solely examined Black immigrant youths of African descent, instead most of the recent studies have represented them as part of a larger study population. Overall, this study in relevance to public health is designed to establish and create grounds for future policies that will improve access to mental health care services for young Black immigrants of African Descent and provide a guidance towards intervention for mental health services.

Keywords: Black African, Youth, Mental Health Substance Use

Research Area: Mental Health/Addiction

Research Method: Mixed Methods



The Impact of a Customizable Homepage in an EMR on User Perceptions and Satisfaction

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Abstract

Background: Healthcare provider burnout is a concern in primary care, necessitating innovative solutions to improve user experience and reduce work-related stress. This study focuses on the development and user perceptions of a novel homepage in the TELUS Collaborative Health Record (CHR), an electronic medical record solution. The homepage is tailored to offer existing CHR clients a more customizable and personalized experience and including information not typically seen in EMRs, thereby creating a more efficient and user-friendly platform for their daily work. The objective is to evaluate CHR users' perceptions, experiences, and satisfaction with the new homepage. Methods: Existing TELUS CHR clients who are family physicians and administrative staff working in primary care clinics will take part in qualitative semi-structured interviews before the full release of the homepage (n = 13), and these and other CHR users will be asked to complete a mixed-methods questionnaire four weeks after the homepage launch (planned total n = 100). Data analysis will involve thematic analysis of interview texts and questionnaire responses, along with statistical analysis of quantitative data. Anticipated Results: Data collection for the survey is ongoing, with interview analysis results expected by the end of May 2024. Conclusion/Significance: The study aims to drive quality improvement of the CHR and refine the design of both initial and future releases of the CHR homepage. Ultimately, this research seeks to contribute valuable insights to the broader field of electronic health records (EHRs), providing innovative solutions to enhance user experiences in primary care settings.

Keywords: Electronic Health Records, Primary Health Care, User-Centered Design, Professional

Burnout

Research Area: Health Administration/Business

Research Method: Mixed Methods



Pancreatic Beta-cell Plasticity: Possible Trans-differentiation of Delta- to Beta-cells in Response to Metabolic Stress

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Abstract

Introduction: The insulin (Ins)-secreting pancreatic beta-cell mass (BCM) of pregnant woman doubles to counteract gestational insulin resistance. When suboptimal this can precipitate gestational diabetes mellitus (GDM). Beta-cell proliferation cannot fully explain the increased pregnancy BCM. However, transdifferentiation of pancreatic somatostatin (Sst)-secreting delta-cells to become new beta-cells was reported during diabetes, and such transdifferentiation could contribute to the increased BCM of pregnancy. In pilot studies we observed an increase in Ins+Sst+ bihormonal cells during mouse pregnancy, which may represent an intermediate state during transdifferentiation. We hypothesize that delta- to beta-cell conversion contributes to the increased BCM in pregnancy, and will be amplified in a mouse model of GDM. Methods: Double transgenic mice (Sst-Cre/YFP) were created where a yellow fluorescent protein (YFP) gene is expressed behind the Sst gene promoter. The YFP lineage tag marks any delta-cells that underwent transdifferentiation to beta-cells. Pancreas sections will be prepared for immunohistochemistry across mouse gestation, Ins+YFP+Sst- cells will be quantified to indicate delta-cell transdifferentiation. Sst-Cre/YFP female mice will be injected with streptozotocin (35 mg/kg) over three days to partially deplete BCM, two weeks before mating. Delta-cell transdifferentiation across pregnancy compared to vehicle-treated controls will be assessed as above. Glycemic control will be measured by glucose tolerance test. To assess functionality of transdifferentiated cells we shall examine their immunohistochemical colocalization of mature beta-cell markers such as glucose transporter 2 and urocortin3. Anticipated results: Delta- to beta-cell transdifferentiation will contribute to increased BCM during pregnancy, and will be greater in GDM in an attempt to recover BCM. A proportion of transdifferentiated cells will possess functional markers of mature beta-cells.

Keywords: Gestational Diabetes Mellitus (GDM), Beta-Cell Proliferation, Insulin resistance, Glucose

Tolerance Test, Pregnant Women Research Area: Clinical Research Research Method: Quantitative



Methodology to Assessing Barriers and Facilitators to Prescription Physical Activity: Healthcare Provider and Recipients

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Abstract

Introduction: Prescription to Get Active (RxTGA) is an Alberta-based not-for-profit organization that enables individuals at risk for lifestyle disease to experience the benefits of movement via healthcare provider-endorsed physical activity prescriptions. While an effective tool, program engagement has declined since the COVID-19 pandemic suggesting that research exploring reasons behind this trend is warranted. The purpose of this study will be to assess the barriers and facilitators to RxTGA involvement among healthcare providers and prescription recipients. Methods: A case study strategy of inquiry using both quantitative and qualitative approaches will be used to understand the phenomenon of interest: RxTGA engagement. This design allows for a multi-faceted and in-depth exploration of complex issues within real-life settings. It is expected that 84 healthcare providers will be assessed quantitatively using validated surveys to uncover barriers and facilitators to engaging in conversations with patients and writing physical activity prescriptions. For recipients, 20 individuals will be recruited to engage in a 30-minute one-on-one, semi-structured interview to assess barriers and facilitators to obtaining, redeeming, and engaging in prescription-based physical activity. Results/Anticipated Results: Quantitative data will be analyzed using descriptive statistics and Pearson correlations. Qualitative data will be assessed using both inductive and deductive thematic analysis. Conclusions/Significance: This methodological account will detail the process for gleaning a comprehensive understanding of RxTGA engagement. It is expected that data collection will ensue in early 2024. The study goal is to provide actionable recommendations to increase physical activity prescription engagement and address increasing rates of chronic disease among Canadians.

Keywords: Exercise, Exercise Therapy, Health Promotion, Prescriptions, Preventive Medicine

Research Area: Population Health Research Method: Mixed Methods



Frailty trajectories in people with and without cardiovascular disease

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Abstract

Introduction: Frailty is a way to express how people accumulate health problems with age. Frailty in people with cardiovascular disease (CVD) is a major healthcare concern because it decreases their quality of life, health span, and they are more likely to be hospitalized and die prematurely than those with lower frailty levels. Although frailty in CVD is common, the ways in which frailty progresses with age is less clear. Despite this, frailty trajectories in relation to the development of CVD and health deficit accumulation have not been studied. Methods: Data from the Canadian Longitudinal Study of Aging (CLSA) will be used. The CLSA study follows over 50,000 people between the ages of 45-85 and provides information on their health every three years. Three time points are available. The CVD variables (including myocardial infarction, transient ischemic attack, peripheral vascular disease, stroke, and heart failure) will be as both individual and composite variables when examining frailty trajectories. A 52-item Frailty Index (FI) will be used to measure frailty and will exclude CVD-related items. Growth mixture modelling will be used to examine frailty trajectories in people with and without CVD, and their relationship to mortality risk. Cox-proportional hazards modeling will be used to determine if faster or slower frailty trajectories are associated with CVD development and mortality. Models will be adjusted for sociodemographic and behavioral variables and results will be stratified by sex and gender. Anticipated Results: My research study will determine if frailty trajectories, are 1) related to people developing CVD; 2) are different in people with versus without CVD; and 3) affect the risk of people dying. Significance: Investigating the relationship between frailty trajectories and CVD will assist the Canadian healthcare system and staff to provide targeted treatment and preventative care.

Keywords: Frailty, Cardiovascular Disease, Population Health, Epidemiology



Can an adult day program reduce social isolation for English-speaking Black older adults in Montreal? A protocol

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Abstract

Introduction: Social isolation among older adults is a prevalent health issue. Day programs offer opportunities for older adults to connect with others and improve social connectedness. Englishspeaking Black Seniors (ESBS) in Montréal, face additional barriers when accessing services such as day programs. The African Canadian and Development Network's (ACDPN) Senior Wellness Centre addressees the unique needs of this population through linguistically and culturally adapted programming. The Senior Wellness Centre and its earlier iterations have been ongoing for the last 5 years, but it has not been evaluated. This program evaluation will gain their perspectives of attendees on whether participating in the program has reduced their social isolation. Methods: This study will employ program evaluation using qualitative description. We will recruit 12 participants who regularly attend the Senior Wellness Centre. We will conduct semi-structured interviews and transcribe interviews verbatim. Data will be analyzed using reflexive thematic analysis. Anticipated Results: It is anticipated that this study will illustrate how the Senior Wellness Centre positively impacts the participants' social wellbeing by reducing social isolation. Specifically, we will look at the effectiveness of the program in increasing social interaction and creating a sense of belonging and community among ESBS. Anticipated Significance: The findings of this evaluation have the potential to shape targeted interventions which can improve the program in supporting ESBS's social wellbeing. The perspectives of the participants will provide insight into effective practices for linguistic and cultural adaptation. This can be used to develop programs that prioritize equitable access.

Keywords: Social Isolation, Older Adults, Language Barriers, Cultural Barriers, Access to Services Research Area: Population Health Research Method: Qualitative



Groceries Online – Eating, Acquisitions, & Technology (GO-EAT) Study: Protocol for a mixed methods, pilot study

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Abstract

Background: More Canadians are shopping online for groceries since COVID-19. Many brick-andmortar food retailers also sell online. Touchpoints, instances when a customer interacts with a brand or business, can help create a harmonious shopping experience across shopping channels. Common digital touchpoints include shopping apps, online product reviews, and social media advertisements. Despite the increased digitalization of our everyday practices, the impact of online grocery shopping and digital touchpoints on healthy eating remains understudied. Current literature suggests that online grocery shopping has pros and cons for healthy eating, but often focuses solely on online purchases. Thus, we aim to better understand how online grocery shopping environments and digital touchpoints contribute to online and in-store food-related purchasing decisions and diet quality. Method: This is a pilot study using mixed methods, consisting of qualitative (Part A) and quantitative (Part B) data collection. Study population will include healthcare professionals who shop online for groceries and live in Nova Scotia. Part A (N=10) will involve one-on-one interviews to explore participants' lived experiences with online grocery shopping and food-related digital touchpoints. Findings from Part A will be used to refine the Part B questionnaires. In Part B (N=40), we will use a series of questionnaires to measure food-related purchases, digital touchpoint usage, and dietary intake over 4 weeks. Anticipated Results/Significance: By measuring all food-related purchases and digital touchpoint usage, study findings will help better understand the relationship between technology use and healthy eating. We can also gain insight on whether exposure to online food retailer platforms is associated with in-store food purchasing decisions and vice versa. Lastly, we will learn if a brief daily questionnaire can be used to collect data on food-related purchases and digital touchpoint usage.

Keywords: Online Shopping, Diet Quality, Technology Use

Research Area: Population Health Research Method: Mixed Methods



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