HPJ
HEALTHY
POPULATIONS
JOURNAL

Volume 5 | No. 2
2025

ISSN: 2816-2536

Improving Access and Inclusion Through Collaborative Health Solutions

CROSSROADS
INTERDISCIPLINARY
HEALTH
RESEARCH
CONFERENCE

Photo Credit: Stjepan MacKillop

Table of Contents

Welcome to the Special Issue

About the Cover and Abstract Notes

Conference Abstracts

Closing

Welcome from the Conference Co-Chairs

We are pleased to welcome readers to Vol 5, Issue 2 of the Healthy Populations Journal (HPJ). As part of our mission to support and disseminate student-led research, advancing knowledge on population health research and global health equity, the HPJ partnered with the co-chairs of the 21st annual Crossroads Interdisciplinary Health Research Conference themed *Improving Access & Inclusion Through Collaborative Health Solutions*. Crossroads is a student-led, peer-reviewed academic conference that is hosted by graduate students within the Faculty of Health at Dalhousie University.

Held over March 7th and 8th in Halifax, Nova Scotia, this year's theme reflects our aspirations to address the challenges and opportunities of access and inclusion as it relates to health and well-being across Canada. Over the course of the conference, we heard from over 100, field leading student and professional researchers, who are passionate about their work as it related to inclusive and accessible health. This conference continues to provide a space where student health researchers can come together to connect, network, and collaborate across disciplines, to work towards improving overall health and wellbeing.

Abstracts in this special issue explore a wide range of important and timely topics related to population health, health inequities, recreation and leisure, clinical health, health policy, mental health and wellbeing, human movement and kinesiology, and inclusive and accessible health care solutions.

This special issue would not be possible without the support from the Healthy Populations Institute, and other sponsors of Crossroads 2025: Dalhousie University's Faculty of Health, CUPE Nova Scotia, Dalhousie University's Vice President of Research Office, Research Nova Scotia, the MacEachen Institute for Public Policy and Governance, Dalhousie University's Faculty of Graduate Studies, and support from the HPJ Editorial Board Members.

Sofia So

Sofia So,
MA, Health Promotion
Dalhousie University
Co-Chair Crossroads 2025

Maggie Locke

Maggie Locke
PhD in Health Student
Dalhousie University
Co-Chair Crossroads 2025

HPJ
HEALTHY
POPULATIONS
JOURNAL

Welcome from the Co-Editors-in-Chief

It is our pleasure to partner with the Crossroads Conference, working together with the Co-Chairs to amplify the work of undergraduate and graduate level scholars for the third year in a row in volume 5, issue 2 of the *Healthy Populations Journal* (HPJ).

Opportunities for student scholars to practice skills in knowledge dissemination such as the writing and presentation of abstracts, workshops, presentations, and even asking questions of other presenters in a public domain are essential elements of academic training. The additional opportunities for networking both amongst peers and more advanced scholars who support student work are important parts of post-secondary education that the HPJ looks forward to amplifying in the annual publication of conference abstracts.

HPJ would not be possible without support from the Healthy Populations Institute and the guidance from the HPJ Editorial Board Members. Additionally, this issue was made possible through the extensive sponsorship and support of the crossroads conference of which full details are listed on the Acknowledgments page at the end of this issue.

Thank you for your ongoing interest in student scholarship,

ivan beck
PhD in Health Candidate,
Dalhousie University
Co-Editor-in-Chief, HPJ

Joshua Yusuf
PhD in Health Student,
Dalhousie University
Co-Editor-in-Chief, HPJ

About the Cover and Abstract Notes

About the Cover

The cover of this special issue represents our conference as a whole as it features a collage of photos taken throughout the events of our conference, highlighting our student and professional attendees, connecting, collaborating, and sharing their passion for health research and future inclusive and accessible pathways to health. Credit for the photos included on the cover go to Stjepan MacKillop.

Abstract Notes

As is typical in abstracts, the authors are listed along with their academic affiliations. In addition to listing the keywords that serves to categorize the content of the work, the section and presentation format are also indicated. The section indicates the general area of scholarship as determined by the conference co- chairs thus assisting readers with understanding the intended audience and general area of health scholarship that their work may be most applicable to.

To facilitate making a clear distinction between completed and proposed projects presented by conference delegates, a heading of “Anticipated Results” was adopted. This heading is used in abstracts where students are presenting on proposed work and shares what students scholars expect to find and that's what the scholarly contribution to a given field might be. The information presented under the heading of anticipated results differs from a scientific hypothesis – a formal prediction based on theory - speaking more to what the proposed work is hoping to achieve.

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Factors that Influence How Pediatric Patients or Caregivers Decide to Present to an Emergency Department: Scoping Review

Devereaux, E.[1], Boulos, L.[2], Steenbeek, A.[3], Marhsall, E.[4], & Curran, J.[3]
[1] Faculty of Health, Dalhousie University, Halifax, NS
[2] IWK Health Centre, Halifax, NS
[3] School of Nursing, Dalhousie University, Halifax, NS
[4] Faculty of Medicine, Department of Family Medicine, Dalhousie University, Halifax, NS

Abstract

Introduction: Studies in countries with universal health care systems have suggested that patients consider using services outside of the hospital for care, however, often end up presenting to an ED. Understanding how pediatric patients and caregivers decide to present to an ED can inform future health care design to mediate decisions before an ED presentation. Inclusion criteria: Literature will be included if it assesses patients between 0 and 17 years who present to the ED and report findings from the patients or caregivers' perspectives. Studies eligible for inclusion are those that focus on ED presentations in a country with; universal health care, Organisation for Economic Co-Operation and Development (OECD) membership and classification as a high-income country. Studies that focus on patients transferred to the ED from a residential or correctional facility will be excluded.
Objective: To map and describe the extent and type of evidence in relation to factors that influence how pediatric patients, or their caregivers decide to present to an emergency department (ED).
Methods: A scoping review using JBI methodology will be conducted. A preliminary search indicated no scoping reviews in this field have been carried out. CINHAL, MEDLINE, PsychInfo and Embase will be searched with no date limits. No language restrictions will be applied. Data will be extracted using a standardized form. Articles will be screened, and data extracted by two independent reviews, with conflicts resolved by a third reviewer or discussion. Data will be analysed through tables with an accompanying narrative summary and PRISMA-ScR.
Results: Analysis ongoing, study expected to be completed by January 2025. Search through CINHAL, MEDLINE, PsychInfo and Embase yielded 4397 total articles. Title/abstract screening excluded 4184 articles, moving 213 articles to full text review. As of November 2024, full text review was ongoing. Grey literature search to begin December 2024.

Keywords: Pediatric, Emergency Department, Health Care Utilization, Decision Making
Section: Population Health
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Evidence of Implementation Planning for Shared Decision-Making Interventions in Pediatric Surgery: A Narrative Review

Doane, S.[1] & Hong, P.[2]
[1] Faculty of Medicine, Dalhousie University, Halifax, NS
[2] Division of Otolaryngology, Faculty of Medicine, Dalhousie University, Halifax, NS

Abstract

Introduction: Decisions around elective surgery for children are very difficult. Shared decision making (SDM) is a process where providers and families both make meaningful contributions to discussion and agree on the best choice for the patient. This engagement is beneficial to families and increases the patient centeredness of care. Multiple interventions have shown success in increasing SDM in pediatric surgery, but their implementation is limited.

Objective: This review used the Consolidated Framework for Implementation Research (CFIR) to investigate the adequacy of reporting on implementation efforts as well as identify potential barriers to implementation.

Methods: A literature search was performed to identify studies describing interventions designed to enhance SDM in pediatric surgery. Searches were performed in Embase, Scopus, Medline and CINHAL databases. For each characteristic of the CFIR, interventions scored '+'(explicitly addressed the characteristic), a '+/-' (implicitly mentioned) or a '–' (not mentioned).

Results: Twenty studies outlining 16 interventions were included. Across all the studies, the Intervention domain was the most fully discussed of the five CFIR domains. However, even within this domain, multiple characteristics were not often discussed including cost, complexity and adaptability. The Outer Setting, Individuals, and Process domains were the least thoroughly addressed. Discussion. The limited discussion of implementation in these studies may reflect insufficient planning for the dissemination of SDM intervention or inadequate reporting of these efforts. Either scenario could help to explain the lack of widespread adoption of SDM interventions.

Conclusion: A lack of implementation planning or reporting on these activities may hinder the uptake of SDM interventions. Robust implementation strategies are essential to increase the use of these interventions across practitioners and sites therefore improving SDM in pediatric surgery.

Keywords: Decision Making, Shared, Surgery, Child
Section: Health Administration/Business
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Enhancing Wellbeing for Black Women in Nonprofit Organizations

Idris, T.[1]
[1] Faculty of Health, Dalhousie University, Halifax, NS

Abstract

Introduction: Nonprofit organizations provide essential services that support societal well-being, but their workers, particularly racialized women, face significant challenges. Black women in nonprofits often experience systemic inequities, precarious employment, and burnout exacerbated by racial and gender-based discrimination. The concept of "Black Fatigue" describes the cumulative mental and physical toll of enduring systemic racism.

Objective: This research explores how collaborative approaches in organizational practices and health policies can enhance access, inclusion, and well-being for Black women in the nonprofit sector.

Methods: This qualitative study will use snowball sampling to conduct in-depth, semi-structured interviews with 20 Black women employed in nonprofit organizations across Nova Scotia. The interviews will investigate workplace barriers, the impact of wellness policies, and the role of intersectional identities in shaping experiences. Data will be analyzed using thematic analysis to identify key themes. Additionally, focus group discussions with nonprofit leaders will further explore actionable solutions. The study is grounded in critical race theory and intersectionality, emphasizing storytelling as a method to amplify marginalized voices.

Anticipated Results: The research anticipates uncovering systemic barriers affecting the well-being of Black women, including inequitable workplace practices, unpaid emotional labor, and limited access to benefits. Collaborative approaches, such as inclusive health programs and leadership development initiatives, are expected to improve equity and workplace wellness.

Conclusion: This research emphasizes the need for systemic changes in nonprofit organizations to address intersectional inequities. Findings will offer actionable recommendations to improve access and inclusion, benefiting not only Black women but also the broader nonprofit sector. Insights may also inform equity-focused practices in healthcare fields.

Keywords: Black health, Nonprofit, Intersectionality
Section: Health Inequity
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

A Narrative Review of School-Based Nursing-Sensitive Outcomes of Children with Chronic Illnesses: A Call for Canadian Research

Keeping, S.[1]
[1] School of Nursing, Dalhousie University, Halifax, NS

Abstract

Introduction: This narrative review aims to synthesize the existing literature related to the nursing sensitive indicators specific to the school-setting, and provide a recommendation for Canadian-based interventions and measurement of the impact of the nursing role on the health and education outcomes of children with chronic illnesses.
Methods: Studies were considered for inclusion in this review if they were published in English within the last 20 years (from 2005) and focused on the direct impact of school nursing services or interventions on student-specific outcomes. CINAHL, ERIC, PubMed and Google Scholar were searched with keywords related to: children and youth, chronic illness, the school setting, nurses, and outcomes. Systematic and other types of literature reviews were not included in this review, but their reference lists were reviewed for potentially relevant studies.
Results: 16 studies were included in the review, all of which were conducted in the United States. These studies discussed diagnoses of asthma, diabetes, severe allergies, seizure disorders, sickle cell anemia and chronic pain. Five key outcomes related to the health and education of children with chronic illnesses were identified as being positively influenced by nurses: school absenteeism, academic performance, healthcare utilization, quality of life, and self-management/self-efficacy.
Conclusion: This review provides evidence that nursing visibility in schools can improve health and education outcomes of children with chronic illnesses. This topic is under-researched in Canada. Nurses are uniquely positioned to positively impact the health equity and outcomes of children with chronic illnesses. Future Canadian research should examine current structures, implementation strategies, and outcomes of school-based nursing programs and interventions in Canada to ensure meaningful utilization of the nursing role in the school setting.

Keywords: Child health, Care integration, Community integration, Population health, Chronic illness
Section: Population Health
Presentation Format: Oral

HPJ
HEALTHY
POPULATIONS
JOURNAL

Abstract

The impact of cyclic sighing on acute blood pressure regulation in young, normotensive adults

Consmueller, C.[1] & Kimmerly, D.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: Slow-paced breathing practices can acutely reduce mean arterial pressure (MAP) in hypertensive and normotensive individuals. Cyclic Sighing (CS, 5 breaths/min) is a novel modified slow-paced breathing protocol shown to improve mood after 28 days of daily practise. However, the acute autonomic cardiovascular effects of a single CS session are unknown.

Objective: This project compared determinants of MAP between bouts of CS versus uncontrolled breathing (UNC).

Methods: In 15 healthy normotensive participants (24±7 years; 25±3.4 kg/m2), MAP (via finger photoplethysmography) and heart rate (HR, via electrocardiogram) were recorded during 10-min bouts of UCB and CS. Cardiac stroke volume (SV, via Modelflow method) was estimated from the finger blood pressure waveform. Cardiac output ($\dot{Q}$, HR×SV) and total peripheral resistance (TPR, MAP/Q) were calculated and averaged over the last 5-min of UCB and CS. Successful microneurographic recordings of peroneal muscle sympathetic nerve activity (MSNA) were obtained in 9 participants (2♀) and quantified as burst frequency (BF) and incidence (BI).

Results: There were no differences in MAP (86 ± 11 vs. 84 ± 12 mmHg, $P=0.199$), SV (73 ± 22 vs. 71 ± 19 ml, $P=0.401$), and MSNA-BF (12 ± 5.3 vs. 9.4 ± 6.4 bursts/min, $P=0.157$) between conditions. However, HR (60 ± 6 vs. 69 ± 7 beats/min, $P<0.001$) and $\dot{Q}$ (4.3 ± 1.2 vs. 4.9 ± 1.3 L/min, $P=0.002$) increased (both, $P\leq0.002$), while TPR (22 ± 6.6 vs. 19 ± 7.2 mmHg/L/min, $P=0.003$) and MSNA-BI (21 ± 10 vs. 14 ± 9.3 bursts/min) decreased (both, $P\leq0.003$) during CS.

Conclusion: These findings highlight that an acute bout of CS did not alter MAP in young normotensives due to divergent $\dot{Q}$ (increased) versus TPR (decreased) responses. CS-mediated reductions in TPR suggest that this breathwork practise may offer benefit for individuals with excessive levels of arteriolar vasoconstriction at rest.

Keywords: Cyclic Sighing, Blood pressure regulation, Muscle sympathetic nerve activity, Breath work practices
Section: Population Health
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Adapting Current Fracture Prevention Guidelines to Home Care Settings in Canada

Friedrich, Y.[1] & McArthur, C.[1]
[1] School of Physiotherapy, Dalhousie University, Halifax, NS

Abstract

Introduction: Many older adults in Canada prefer to receive care at home rather than in long-term care facilities; however, they face increased risks of falls and fractures which can have serious consequences for their health and well-being. Home care is defined as receiving nursing, personal support, or rehabilitative services (e.g., physiotherapy) which allow one to live at home for as long as possible. Existing guidelines, currently designed for long term care or community dwelling individuals, for preventing fractures were not designed specifically for people receiving home care.
Objective: To address this gap, our project aims to adapt existing fracture prevention guidelines for use in home care settings.
Methods: We will work with home care recipients, providers, clinicians, as well as relevant organizations (i.e., Osteoporosis Canada) to modify these guidelines to better meet the needs of people receiving care at home. Our qualitative research will also identify any gaps in knowledge or research related to preventing fractures in home care through online focus groups and an interpretive descriptive lens. By involving home care recipients and providers in our project, we hope to ensure that our findings are relevant and useful for improving care.
Anticipated Results: The result of our project will be tailored clinical guidelines that can help reduce the risk of fractures and improve the overall health and well-being of older adults receiving care at home in Canada.

Keywords: Bone Fracture, Falls, Older Adults, Home care, Osteoporosis
Section: Clinical Research
Presentation Format: Poster

HEALTHY POPULATIONS JOURNAL

Abstract

Improving Access to Literacy Development for Autistic Preschoolers: Shared Book Reading with E-books

Edgington, B.[1] & Gonzalez-Barrero, A.M.[1]
[1] School of Communication Sciences and Disorders, Dalhousie University, Halifax, NS

Abstract

Introduction: The number of children diagnosed with autism has increased in recent years with current estimates being at 1 in 50 in Canada. While there is a large heterogeneity among autistic children, a domain consistently reported to be challenging for them is reading comprehension. Shared book reading supports literacy and language development in neurotypical and autistic children. However, when compared to their neurotypical peers, autistic children engage less during shared book reading. Given that early reading skills are significant predictors of academic success, it is central to identify specific conditions that support engagement and reading comprehension for autistic children. Of interest, research suggests that autistic children tend to engage more with electronic screen media.

Objective: Following these findings, the objectives of this study are to determine whether book format (paperback versus e-books) impact engagement and reading comprehension during shared book reading for preschool autistic children.

Methods: Thirty dyads including a parent, and their autistic child will complete a paperback and an e-book 10-minute shared book reading session. Over the course of the shared book reading session, the child's engagement and reading comprehension will be measured. Data will be analyzed using linear mixed models.

Anticipated Results: Based on current research, we hypothesize that the use of an e-book will result in autistic children's increased engagement and reading comprehension.

Conclusion: Findings from this study will provide key information on the influence of book format on autistic preschoolers' literacy skills and will contribute to developing best practices for fostering early literacy skills in autistic children with the goal of supporting autistic individuals' academic success and their subsequent ability to participate in the workforce, economy, and self-advocacy.

Keywords: Autism, Preschool Children, Literacy, Shared Book Reading, E-books
*Section***:** Population Health
Presentation Format: Poster

HPJ HEALTHY POPULATIONS JOURNAL

Muscle Strength and Mobility in Knee Osteoarthritis: A Systematic Review of Assessment Techniques and Performance Outcomes

Doan, A.[1]
[1] School of Physiotherapy, Dalhousie University, Halifax, NS

Abstract

Introduction: Muscle weakness, particularly of the knee extensor, is a risk factor and predictive of knee osteoarthritis (KOA). Weaknesses in both the knee extensor and knee flexor can contribute to high-impact loading at the joint and reduce dynamic support during walking and stair climbing. Current literature shows variability in how muscle strength and functional performance are assessed, contributing to inconsistent evidence on the relationship between muscle weakness and functional outcomes.

Objective: This systematic review aims to address these gaps by synthesizing evidence on the measurement and evaluation of muscle strength and functional performance in individuals with or at risk of KOA.

Methods: A systematic search will be performed on PubMed, Scopus, Cochrane Library, Embase and CINAHL. Eligible studies will include peer-reviewed experimental or exploratory research assessing muscle strength and functional performance, including daily activities and functional tasks, in individuals with or at risk of KOA.

Anticipated Results: It is hypothesized that most studies will demonstrate muscle weakness contributes to deficits in functional performance. Additionally, the review is anticipated to highlight variability in the assessment protocols for both muscle strength and functional performance across the existing literature, reflecting the lack of standardization in measurement protocols and inconsistencies in outcomes.

Conclusion: The findings may inform both research and clinical practice by highlighting existing evidence and identifying gaps in the assessment of muscle strength and its relationship to functional performance in the KOA population. This review could also provide valuable insights for developing standardized protocols for assessing knee muscle strength and functional performance.

Keywords: Knee Osteoarthritis, Muscle Strength, Functional Performance, Measurements
Section: Population Health
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Growing Together: Exploring Diverse Nova Scotia Youth Perspectives to Accessing Nature for Mental Health and Well-Being

Kwan, M.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: Since 2015, the trend for self-reported mental health as good or excellent for Nova Scotia (NS) youth has been in decline, with youth mental health services costing Canada over four billion dollars annually. Evidence for the benefits of nature for mental health promotion is growing. However, multiple barriers exist in NS that limit youth from experiencing these benefits. There is a need for better collaboration between the healthcare system and nature-based recreation to promote positive mental health outcomes for youth.

Objective: This study aims to investigate the diversity of youth perspectives on needs, values and barriers to accessing nature to promote mental health and well-being in NS.

Methods: To capture youth perspectives on the disparities in access to nature, a mixed-methods Outdoor Health NS survey will be distributed using the Opinio software. This study aims to recruit 300 participants (ages 13-18). Quantitative analysis will be conducted with SPSS 29, using counts and proportions to describe responses to close-ended questions. Qualitative analysis will be performed using NVivo 15 using reflexive thematic analysis to identify themes from open-ended responses.

Anticipated Results: This survey will allow youth to share their voices to inform recommendations for accessing nature for mental health.

Conclusion: It is important to understand the barriers and inequities youth experience in accessing nature. This can help identify greater integration opportunities for the traditional healthcare system and nature-based recreation. Findings from this study will enhance policy and programs using nature to optimize mental health and well-being for NS youth.

Keywords: Youth perspectives, Access to nature, Mental health
Section: Topic
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Exploring 2SLGBTQ+ Perspectives: Insights on Improving Mental Health Support in Nova Scotia

Bryne, M.[1], Numer, M.[2], & Dietzel, C.[2]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS
[2] Sexual Health and Gender (SHaG) Lab, Dalhousie University, Halifax, NS

Abstract

Introduction: 2SLGBTQ+ people in Nova Scotia experience disproportionately worse mental health outcomes compared to their heterosexual/cisgender counterparts, driven by factors such as stigma, discrimination, and systemic inequities. With the highest rates of gender and sexual diversity in Canada, Nova Scotia presents a unique opportunity to explore how mental health supports can be improved.

Objective: The purpose of this study is to explore what areas 2SLGBTQ+ people in Nova Scotia identify as important for improving mental health support. By identifying key areas for improvement, this research seeks to provide actionable insights that can inform future policy, practice, and community interventions.

Methods: A qualitative descriptive approach was used to analyze open-ended survey data from 2SLGBTQ+ Nova Scotians, sourced from a larger study conducted by Dalhousie's Sexual Health and Gender (SHaG) Lab. Reflexive Thematic Analysis was used to develop themes and subthemes.

Results: Three themes were developed. (1) Bridging Gaps & Building Bonds highlights the need for fostering community connection, with subthemes exploring the importance of Events & Spaces, and Rural Areas. (2) Expanding Access and Inclusion centers around the importance of increasing the affordability, availability, and accessibility of mental health resources, with a subtheme exploring the importance of Competent & Affirming Care. (3) Advancing Social Equity focuses on addressing societal underpinnings of mental health, with subthemes discussing Economic Security, Justice & Protection, and a Shifting Political Climate.

Conclusion: This research highlights the multifaceted challenges and opportunities for improving mental health supports for 2SLGBTQ+ people in Nova Scotia. These findings provide a foundation for actionable changes in policy, practice, and community initiatives, with the potential to enhance mental health outcomes and overall quality of life for 2SLGBTQ+ people in Nova Scotia.

Keywords: Mental Health Supports, 2SLGBTQ+, Nova Scotia, Improvements Strategies
Section: Health Inequity
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Exploring the subjective experiences of motor imagery: A qualitative study

Rowe, J.[1]
[1] Faculty of Health, Dalhousie University, Halifax, NS

Abstract

Introduction: Motor imagery, the imagination of movement, has shown only moderate efficacy in stroke recovery, and this may stem from an incomplete understanding of how we learn through motor imagery. Despite over two decades of research on motor imagery, an inherently covert process, there remains no studies that have examined participants' subjective experiences with motor imagery-based learning. Prior qualitative work in motor imagery has only focused on evaluating imagery interventions in clinical settings or comparing imagery abilities across different groups.

Objective: The purpose of this qualitative study is to explore participants' perceived experiences when engaging in motor imagery, providing novel insights that may inform how we use and study motor imagery-based learning.

Methods: We will conduct a series of semi-structured interviews and motor imagery tasks with 15-20 college-aged participants over two sessions: Session one: participants will discuss their prior motor imagery experiences, complete a guided motor imagery scenario and assessment, and answer questions about their experiences. Session two: participants will perform simple and complex motor imagery tasks, share their experiences, and conclude with closing reflections.

Results: Data collection and analysis are underway. Drawing Braun and Clarke (2006, 2021), themes will be generated using an inductive thematic analysis, and preliminary findings will be presented.

Conclusion: This study will provide the first in-depth exploration of how individuals engage with motor imagery, offering valuable insights that can reshape and advance our understanding of motor imagery-based learning and enhance the practical application of imagery in rehabilitation.

Keywords: Motor imagery, Subjective Experiences, Inductive Thematic Analysis
Section: Kinesiology
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Perceptions of Active Play and Physical Literacy in an After School Outdoor Loose Parts Intervention: Preliminary Results

Campbell, J.[1], Moore, S.A.[1], & Stone, M.R.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: Unstructured, outdoor play may offer unique benefits and opportunities for children and youth to promote physical activity (PA) and physical literacy (PL). Loose parts play is a type of unstructured play that has been linked to PA and PL in early childhood settings, but more research is needed in elementary age children.

Objective: This project aimed to explore educator and child perspectives of the impact of an outdoor loose parts play (OLPP) intervention on PA and PL in before and after school settings.

Methods: This study was conducted in the context of the Physical Literacy in the Early Years (PLEY) School intervention. This paper combines qualitative data from focus groups and photo documentation with staff, and go-along interviews and photo elicitation with children from three distinct sites, using a relativist ontology, constructivist epistemology, and reflexive thematic analysis.

Results: Preliminary results indicated the development of four themes that relate to PA and PL. The first captures the spirit of play, with OLPP positively impacting motivation to participate; the second describes the dynamic play types that occur in OLPP; the third explains the diverse movements involved in OLPP; and the fourth demonstrates children's development of knowledge and understanding in movement as well as teamwork and communication required during OLPP.

Conclusion: This study highlights that OLPP is perceived positively by both educators and children in diverse sites and provides further evidence of its impact among school-aged children in after school settings. These are both a critical age and setting to implement movement and PL interventions to support lifelong PA and healthy development.

Keywords: Physically Active Learning, Children, School, Wellbeing, Physical Activity
Section: Population Health
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

"A legitimate cause to be bitching": Examining diagnostics narratives and functional neurological disorder

Ronan, R.[1]
[1] Department of Sociology, St. Thomas University, Fredericton, NB

Abstract

Introduction: Functional Neurological Disorder (FND) is a broad-spectrum disorder characterized by motor, sensory, or cognitive symptoms that cannot be explained by another recognized disorder, previously known as 'conversion disorder'. There is disagreement within biomedicine on the validity of FND, as the cause is unknown, there are no biomarkers for diagnosis, and treatment is often limited to talk therapy. Despite being referred to as a 'rare' condition, FND is one of the most common neurological diagnoses with women making up over 70% of patients. This gender disparity raises questions about the gendered nature of the diagnosis, as it is used to categorize women's distress.
Methods: Semi-structured interviews with 5 North American women who disagree with their FND diagnosis. Participants were recruited from public Facebook FND groups. Narrative analysis will be used to examine the stories as 'units', holistically interpreting broader themes and illuminating how participants' stories are shaped by the contested nature of the diagnosis.
Anticipated Results: Preliminary results describe participants' disillusionment with medicine, preference for holistic methods, the importance of a support system, and barriers of communication with care providers. Rather than solidifying biomedical expertise, FND diagnosis may further entrench women's distrust of a system they feel overlooks their distress.
Results: This research contextualizes FND within the broader framework of 'contested illness' and narratives of health, exploring the concepts of epistemic injustice and illness as a social construct. By examining narratives of women who navigate these challenges, the study will shed light on the intersection of gender, medical authority, and patient autonomy. The findings have the potential to inform both clinical care and patient advocacy, highlighting the need for greater sensitivity to gender bias and the inclusion of alternative narratives in medical decision-making.

Keywords: Neurological Care, Interview, Gender Bias,
Section: Health Inequity
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Predictors of Return to Work Following Sprain and Strain Injuries in Nova Scotia

Jacobs, K.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: The Workers Compensation Board of Nova Scotia (WCBNS) spends millions on paid time off work (TOW) and treatment for injured employees. Sprains and strains represent 63.4% of workplace injuries in Nova Scotia, posing significant financial and emotional challenges for both employers and employees. Prompt and safe return to work (RTW) is critical to mitigate these impacts.

Objective: This study aims to identify and analyze the key factors influencing RTW outcomes for employees with sprain and strain injuries in Nova Scotia.

Methods: Participants' data was collected secondarily from WCBNS claim records. Variables under investigation include Orebro musculoskeletal pain questionnaire (OMPQ) scores, injury location, report timeline, quantity of treatment, and occupation Descriptive statistics were used to summarize key variables, followed by a General Linear Regression Model, ANOVAs, and Bootstrap Confidence Intervals to evaluate the effects of variables on RTW duration.

Results: Findings reveal that the quantity of physiotherapy and chiropractic appointments (PT/C) is the most impactful in decreasing RTW. Additionally, increases in report time and OMPQ score prolong TOW. Variance in injury location and injury type impact RTW duration. There was no conclusive evidence that occupation impacts RTW in our sample. Significance: The results will guide WCBNS in resource allocation and intervention strategies. For modifiable factors, including report time and treatment quantity, WCBNS should prioritize funding for PT/C, encourage early reporting and decrease barriers to using reporting systems. Non-modifiable factors will inform the development of tailored support programs and targeted initiatives that enhance RTW outcomes

Conclusion: Prolonged TOW can be detrimental for employees and employers. Evidence-based interventions and initiatives have the potential to reduce TOW, improve employee well-being, and optimize financial outcomes for employers and insurers.

Keywords: Return-to-work, Sprain, Strain, Time-off-work
Section: Health Administration/Business
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

The effects of ableism in education: Spotlight on health and well-being of children with disabilities

Mahdizadeh Karizaki, F.[1] & Phelan, S.[2]
[1] Faculty of Health, Dalhousie University, Halifax, NS
[2] School of Occupational Therapy, Dalhousie University, Halifax, NS

Abstract

Introduction: Inclusion of children with disabilities in mainstream education is central to educational reform, promoting disability-affirming practices. Recognized as a social determinant of health, inclusion counters health inequities caused by exclusion. However, ableism remains a major barrier, adversely affecting health and well-being.
Objective: This study examines ableism's impact on inclusion and well-being.
Methods: A critical interpretive synthesis of the literature on disability, inclusion, and primary and secondary education was conducted. A systematic search of five databases, Medline, ERIC, Scopus, CINAHL, and PsycINFO identified 25 peer-reviewed articles for analysis. Thematic analysis of articles followed Dixon-Woods' protocol, drawing on critical disability theory and ableism as a sensitizing concept.
Results: Thematic analysis generated five key themes: 1) systemic ableism and ruling relations, 2) interpersonal ableism and social dynamics, 3) internalized ableism and effects on the self, 4) counteracting ableism through advocacy and supports, and 5) anti-ableism and actualizing inclusion. Systemic ableism manifested in institutional policies, exclusionary practices, structural barriers, and resource allocations. Interpersonal ableism was perpetuated through social exclusion and discriminatory attitudes. Internalized ableism led children to adopt negative perceptions of self. The effects of ableism were linked to negative health and well-being outcomes. However, disability-inclusive practices and supports were linked to social inclusion and well-being. **Conclusions**: Ableism in education impacts the health and well-being of children with disabilities. Disability-inclusive practices, when effectively implemented, can mitigate these effects. This study highlights the need for systemic transformation to address the root causes of ableism and promote the inclusion, health, and well-being of children with disabilities.

Keywords: Ableism, Children with Disabilities, Education, Health, Wellbeing
Section: Health Inequity
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Comparison of the effects of doxycycline and povidone iodine in treatment of pleural effusion

Hajizadeh, A.[1] & Hemmati, H.R.[2]
[1] Division of Thoracic Surgery, QEII Health Sciences Centre, Nova Scotia Health Authority, NS, Canada
[2] Department of Surgery, Semnan University of Medical Sciences, Semnan, Iran

---

Abstract

Introduction: Doxycycline is commonly used in treating pleural effusion. Povidone-iodine is another agent that has been used for treating pleural effusion.
Objective: We aimed to compare the effects of doxycycline and povidone iodine in treating pleural effusion.
Methods: Forty-one patients with pleural effusion were enrolled and randomly divided into two groups. After insertion of the chest tube, pleurodesis was performed in the first group with povidone iodine and doxycycline in the second group. The chest tube clamped and opened one hour later. Then, connected to the suction through a double chest bottle. By decreasing of drainage to less than 50 cc per day, the chest tube was removed, and the patients were evaluated three days later for pain, fever, empyema, recurrent effusion and long-term side effects at 7th, 30th, 60th and 90th day.
Results: The pain intensity was not different between two groups ($P > 0.05$). None of the patients had empyema and other side effects including hemothorax or pneumothorax were not seen too. In a 90-day follow-up, 47.6% of doxycycline recipients and 25% of povidone iodine recipients experienced the recurrent effusion ($P = 0.133$). Three patients had fever in the doxycycline group, while fever was not observed in povidone iodine recipients. The cost of treatment in both groups was almost the same.
Conclusion: Side effects of pleurodesis include pain, fever, recurrent effusion, cost in the two groups is almost equal, and both agents can be used as an effective drug for treating pleural effusion.

Keywords: Pleurodesis, Povidone Iodine, Doxycycline, Malignant Pleural Effusion
Section: Clinical Research
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

YOGA Fit: Protocol for a Pilot Crossover Trial Investigating Feasibility and Impact of Yoga for Chronic Stroke Survivors

Pierson, D.[1], Eng, J.J.[2], Pollock, C.[2], Askari, S.[3], Pearce, K.[4], Champod, A.S.[5], Dunlop, M.[6], Keats, M.[7], McDonald, A.[6], Mardline-Smith, F. Jones, G., Luckett, C.[3], Quigley, A.[1]
[1] School of Physiotherapy, Dalhousie University, Halifax, NS
[2] Department of Physiotherapy, University of British Columbia, Vancouver, BC
[3] School of Occupational Therapy, Dalhousie University, Halifax, NS
[4] LoveYourBrain Yoga Program
[5] Department of Psychology, Acadia University, Wolfville, NS
[6] Nova Scotia Health, Halifax, NS
[7] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: Stroke is a leading cause of adult mortality and disability in Canada. LoveYourBrain (LYB) is a 6-week manualized yoga program originally developed for people with traumatic brain injuries. It will be adapted to address the needs of chronic stroke survivors and will be tested virtually and in-person across 4 sites in Nova Scotia. The proposed research question is: what is the feasibility and impact of a virtual yoga program in comparison with an in-person yoga program on balance in chronic stroke survivors?
Methods: This is a mixed methods pilot randomized crossover study. Participants will be randomized to one of two sequences (virtual yoga followed by in-person yoga or in-person yoga followed by virtual yoga). All participants will complete a 12-week washout period before initiating their second LYB intervention. Participants in groups of 3-4 people from 4 sites will engage in LYB virtual and in-person yoga classes for 90 minutes twice per week as well as one 60-minute recorded class to complete on their own time. Balance, walking, mobility, cognitive function, and mental health assessments will occur in-person at 4 time points: baseline, end of the first 6-week intervention, end of the 12-week washout period, and after the second 6-week intervention.
Anticipated Results: It is hypothesized that both virtual and in-person yoga will be equally effective and impactful for chronic stroke survivors in Nova Scotia
Conclusion: This work aims to enhance the health and well-being of people in Nova Scotia by offering rehabilitation that focuses on stroke survivors' needs, is adaptable to their preferences, and improves their level of function. We will also be assessing usability of a smartphone app used to promote adherence to class attendance and collect information on other health outcomes.

Keywords: Yoga, Chronis Stroke Survivors, Rehabilitation
Section: Clinical Research
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Understanding the Needs of Minority Language Families with Autistic Children

Bercovici, R.[1] & Gonzalez Barrero, A.M.[1]
[1] School of Communication Sciences and Disorders, Dalhousie University, Halifax, NS

Abstract

Introduction: Autism spectrum disorder (ASD) is a neurodevelopmental condition characterized by differences in language and social communication and the presence of restrictive and repetitive behaviors (APA, 2013). The prevalence of ASD among children has increased in recent years and notably, this includes children from bilingual families. In many Canadian provinces however, services for autistic children are primarily provided in English (Smith et al., 2019), presenting a challenge for families who are not proficient in this language. In addition to language challenges, some of the practices commonly recommended to support the communication skills of autistic children might not be relevant to families from diverse cultural backgrounds (Albin et al, 2022). These linguistic and cultural incongruencies not only negatively impact the outcomes of parent-mediated interventions but also children's psychosocial well-being by hindering the parent-child bond, limiting social integration, and shaping the child's cultural identity (Hampton et al., 2017). **Objective:** This study examines the perspectives of parents and interventionists on the facilitators and barriers experienced by minority-language families of autistic children when receiving social communication services in Nova Scotia.

Methods: Focus groups will be conducted with 20 parents of minority language autistic children (18-72 months) and 20 interventionists who provide services to these families, to discuss their perspectives and experiences when receiving/providing social communication services. Data will be analyzed using reflexive thematic analysis.

Conclusion: This study will provide key insights into the cultural and linguistic factors that influence service delivery, from the perspectives of both parents and interventionists. Ultimately, findings can provide valuable recommendations to provincial autism programs, ensuring that they are inclusive, accessible, and effective for diverse populations.

Keywords: Autism Spectrum Disorder, Minority Language, Cultural Adaptation, Parent-Mediated Intervention, Preschoolers
Section: Health Inequity
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Exploring the Implementation of One Person One Record at IWK Health: A Mixed Methods Study

Delahunty-Pike, A.[1] & Curran, J.[1]
[1] Faculty of Health, Dalhousie University, Halifax, NS

Abstract

Introduction: Clinical Information Systems (CISs) can have a significant impact on the health system. There is a critical gap in the literature evaluating CIS implementation and impacts on patient flow (when a patient enters the system to discharge) and equity (providing patients with the best possible care). To centralize patient information and increase efficiency, Nova Scotia will implement One Person One Record (OPOR), a CIS, at IWK Health as the first site in August 2025. Patient flow has been identified as a priority target for evaluating implementation of OPOR.
Objective: This research will use the exemplar of patient flow and equity to examine the perceptions and experiences of health system users with the real-time implementation of OPOR at IWK Health.
Methods: A mixed methods research design will be used. Data collection will include interviews with key health system users and clinical observations to map patient flow in the Emergency Department, with a comparison to pre-implementation observations. Building from qualitative findings, a survey will be developed and administered to system users as well as a structured audit tool to guide data collection relating to patient, equity and system outcomes.
Anticipated Results: It is anticipated that successful implementation of OPOR at IWK Health will have a positive impact on patient flow. Implementing a CIS that increases system efficiency could improve access to care and equity at IWK Health.
Conclusion: By using patient flow and equity as a priority exemplar, this research will provide evidence to understanding facilitators and barriers in implementing health system change at a women and children's hospital.

Keywords: Clinical Information System, Health Systems, Health Equity, Patient Flow
Section: Population Health
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Barriers to providing occupational therapy at end-of-life: An integrative review

LeBlanc, J.[1]
[1] School of Occupational Therapy, Dalhousie University, Halifax, NS

Abstract

Introduction: End-of-life care is an emerging practice area for occupational therapists.
As the Canadian population ages, there is a need for more healthcare service providers, including OTs, working in this field.
Objective: This integrative review considers what barriers exist to providing OT at end-of-life.
Methods: Two electronic databases (CINAHL & PubMed) were searched using relevant terms. A citation search was also performed. Once inclusion and exclusion criteria were applied, 15 articles were selected for appraisal and analysis and were included in this review.
Results: A total of 39 barriers to providing OT at end-of-life were mentioned across 15 articles. 3 categories of barriers were identified: barriers existing at the individual level, institutional level, and/or societal level. The majority of barriers were classified as occurring at the institutional level. While articles discussed a variety of barriers, certain barriers were named more often than others. The top barriers to provision of OT at end-of-life were insufficient funding and resources, a lack of understanding of the OT role and contribution, poor referrals, insufficient promotion of the OT contribution, limited staffing, and limited research on the role of OT in this practice area. **Conclusion:** It was noted across the literature that a lack of resources (funding, staff, etc.), a lack of understanding of what OT can do for palliative clients, and a lack of evidence (research) are the main barriers to OT provision at end-of-life. Healthcare organizations should consider these barriers when looking to make improvements to their palliative care services.

Keywords: Rehabilitation, Occupational Therapy, Palliative Care,
Section: Clinical Research
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

A Scoping Review on Non-clinical Interventions to Reduce Inequities in Palliative Care for LGBTQ+ People

MacIntyre, G.[1] & Numer, M.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: People who identify as lesbian, gay, bisexual, transgender and queer (LGBTQ+) experience health disparities across the lifespan, including at end-of-life. Many report negative experiences and barriers in palliative care. Most existing reviews on improving palliative care for LGBTQ+ people are on recommendations framed through a clinical lens and at the patient-provider level. 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 on palliative care for LGBTQ+ people overlooks these approaches. There is also a need to examine interventions that have been evaluated.

Objective: The purpose of this study is to understand what is known in the literature about implemented and evaluated non-clinical interventions regarding palliative care for LGBTQ+ people.

Methods: A scoping review was conducted using the Arksey and O'Malley (2005) framework. Six databases were searched, 1547 records were screened, and 6 studies were included for review. Charted data was analyzed using inductive content analysis. The socio-ecological model was used to critically examine findings.

Results: Examples of non-clinical interventions across various settings and multiple levels were identified. Results were organized according to four overarching themes: anticipating and meeting unmet needs community needs; recognizing intersecting social and structural suffering; relieving suffering through belonging and solidarity; and enhancing interdisciplinary provider competencies and consciousness.

Conclusion: This study shows gaps in the literature and provides insight into what and how non-clinical interventions reduce inequities in palliative care for LGBTQ+ people. The findings can inform future research and policy and practice changes across healthcare provider, community, and structural levels.

Keywords: LGBTQ+, Palliative Care, End-of-life, Interventions, Inequities
Section: Health Inequity
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Exploring the Pragmatic Profile of Autistic and Non-Autistic Children with a Newly Developed Task

Morin, G.[1] & Gonzalez-Barrero, A.M.[1]
[1] School of Communication Sciences and Disorders, Dalhousie University, Halifax, NS

Abstract

Introduction: Recently, some researchers have proposed that pragmatic (i.e., social communication) tasks can be distinguished into two categories: linguistic-pragmatics (contexts where structural language skills such as vocabulary are required to understand a social situation) and social-pragmatics (contexts where, in addition to language skills, an individual needs to use Theory of Mind; ToM; Andrés-Roqueta & Katsos, 2017). This distinction can help researchers understand the cognitive processes necessary within pragmatics.

Methods: Participants included 28 typically developing children and 5 autistic children (4–8 years of age). We developed a pragmatic task to examine the contribution of structural language and ToM to pragmatics in neurotypical and neurodivergent children. The task underwent a comprehensive development process based on child responses and experts' feedback. It was administered virtually alongside measures of structural language, ToM, parent questionnaires, and a pragmatic assessment comparison to evaluate the validity of the new task.

Anticipated Results: This study will provide further knowledge on the relationship between structural language, ToM, and pragmatics, contributing to our understanding of the social-cognitive underpinnings of pragmatic differences in autistic and non-autistic children. Examining the contribution of these factors to pragmatic skills also has important implications for the development of client-centered interventions that address the specific pragmatic challenges of autistic children (Loukusa et al., 2018).

Conclusion: Direct assessment of pragmatic skills is central to gathering more comprehensive information on the specific pragmatic strengths and needs of autistic children. This new assessment tool will help clinicians and researchers understand the contribution of cognitive and linguistic processing within pragmatics.

Keywords: Social Communication, Autism, Theory of Mind
Section: Clinical Research
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Community-Based and Participatory Approaches in Health Promotion

Colford, L.[1], Gallant, K.[1], Feicht, R.[1], & Landy, R.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

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 social prescribing is becoming a more widely accepted practice and its evidence base is expanding, there remains a lack of research surrounding specific approaches used in the development of social prescribing programs. Community-based and participatory approaches in social prescribing involve collaborative efforts between the healthcare setting and the community to co-design programs.

Objective: 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 social prescribing. **Methods:** Following the Arksey & O'Malley (2005) framework for scoping reviews, four relevant databases including Academic Search Premier, CINAHL, PsycINFO, and PubMed incorporating MEDLINE were searched. Reflexive thematic analysis was used to analyze data.

Results: Four key themes were developed: (1) Strengthening SP programs with service user insights (2) Leveraging existing community assets for SP programs, (3) Navigating the complexities of cross-sector collaboration, and (4) Consideration of limited capacities and resources. **Conclusion:** This review provides a foundation for further research concerning SP and the use of community-based and participatory approaches in SP program development. The findings from this research are 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
Section: Population Health
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Exploring Prosocial Impacts of Outdoor Loose Parts Play: Perspectives of Before and After School Program Staff

Bautista, L.[1], Feicht, R.[1], & Stone, M.R.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: The importance of play for child development is well established. Outdoor loose parts play (OLPP) provides children with opportunities to engage in unstructured, child-led play, with documented physical activity-related benefits, but the cognitive, emotional, and social outcomes of OLPP are less well understood.
Objective: This study aims to explore the prosocial impacts of an OLPP intervention for school-age children in before and after school programs. Prosocial behaviours include sharing, cooperation, and positive interactions.
Methods: My study used program staff focus group interviews and photo documentation data from The PLEY School Study in three before and after school settings in Nova Scotia, Canada. A constructivist worldview, interpretive description methodology, and reflexive thematic analysis, with an interpretive and deductive lens, was used.
Results: Three themes were developed: OLPP Expands Play Circles, OLPP Encourages Children to Work Together, and OLPP Fosters Positive Social Interactions. The discussion of these themes contributes to and adds to the literature regarding the socio-emotional impacts of OLPP. **Conclusion**: This study responds to a gap in the loose parts play literature by examining non-physical benefits of OLPP. The findings of this study provide insight into how OLPP may offer opportunities to engage in prosocial behaviours, supporting child development. Findings may provide insight for key informants and inspire future research that strengthens OLPP's position as an accessible form of play that facilitates social inclusion.

Keywords: Play, Loose Parts, Social behaviour, Interpersonal Relations, Child
Section: Health Inequity
Presentation Format: Poster

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Evaluation of 'Keep Moving' at the Canada Games Complex

Klarner, T.[1], Henson, K.[1], Bogacki, J.[2], Przysucha, E.[1], & Roy, C.[1]
[1] School of Kinesiology, Lakehead University, Thunder Bay, ON
[2] Canada Games Complex, Thunder Bay, ON

Abstract

Introduction: 'Keep Moving' is a fitness program designed to increase access to health services for individuals with neurological conditions in Thunder Bay, Ontario. Exercise classes are offered twice weekly for ten weeks and include aerobic, functional strengthening, mobility, and balance exercises led by fitness professionals. 'Keep Moving' fosters collaboration between healthcare providers, such as physiotherapists, to ensure individuals who may benefit are referred to the class.

Objective: The aim of this project was to evaluate the health, wellbeing, quality of life, and sense of community of adults living with chronic neurological conditions who were apart of 'Keep Moving'. Results will inform expansion into surrounding northern communities to establish similar programs to improve accessibility of community-based services.

Methods: Fifteen participants took part in the research project which included pre-tests, a 10-week exercise program with additional non-mandatory monthly workshops and outings, including dietitian presentations, various adaptive exercise class demonstrations and virtual health programming. Fitness post-tests and an exit feedback interview on the program's strengths, weaknesses, sustainability, and impact were also completed by participants and program stakeholders. Participants completed pre- and post-evaluations using the Senior Fitness Test, Tinetti Balance Assessment and NeuroQOL.

Results: Participants' NeuroQOL reported an increase of perceived quality of life following 'Keep Moving'. Physical testing showed most participants scored higher post program on the Senior Fitness Test and the Tinetti. Post-surveys and interviews highlighted key areas of expansion capabilities for the program to increase accessibility for current and future participants. **Conclusion**: The results will be used to enhance and expand 'Keep Moving' through a toolkit and service delivery model to facilitate program implementation in other municipalities.

Keywords: Neurological Conditions, Evaluation, Community Programming
*Section***:** Recreation and Leisure
Presentation Format: Oral

The SHINE Program: A Pilot Study Examining Mentorship as an Exercise Promotion Tool Among Undergraduate Women Initiates

Fabiano, M.[1], Mushquash, A.R.[2], Gotwals, J.K.[1], & Pearson, E.S.[1]
[1] School of Kinesiology, Lakehead University, Thunder Bay, ON
[2] Department of Psychology, Lakehead University, Thunder Bay, ON

Abstract

Introduction: Despite the known benefits of regular exercise, undergraduate women (UW) continue to experience low engagement, a trend that only worsened during the pandemic. Thus, improving access and inclusion is crucial to provide UW with a healthy life trajectory. A promising approach to enhance engagement is peer mentorship programs (PMP): pairing individuals seeking behaviour change with trained mentors. To date, UW PMP research remains sparse.
Objective: This randomized pilot study involves examining the impact of a 6-week exercise program with and without mentors on exercise motivation dimensions.
Methods: Twenty-four full-time inactive UW were randomized (12 intervention; 12 control); six senior students with exercise expertise were trained as mentors. Mentors engaged in a 2-hour workshop on motivational interviewing and program duties, enabling them to provide virtual support and exercise with intervention UW weekly. All UW received a facility tour and encouragement to engage in triweekly exercise. Baseline data were assessed via validated measures: the Psychological Needs Satisfaction in Exercise Scale and Behavioural Regulation in Exercise Questionnaire-3.
Results: A Mann-Whitney U test revealed non-significant differences ($p > 0.05$) between groups. Small effect sizes ($\eta 2 = 0.01$) were identified for all subscales and conditions, except intrinsic motivation, having a medium effect ($\eta 2 = 0.06$).
Conclusion: The SHINE (Supporting Her In Navigating Exercise) program aims to create a supportive environment to foster engagement in UW. At baseline, participants demonstrated low levels of motivation to foster engagement, which is expected amongst initiates. Data collection will continue to track motivation, engagement, communication habits, and program experiences. Identifying effective methods to overcome barriers will boost engagement and health; pivotal for fostering lifelong habits. In partnership with Lakehead Athletics, results will be shared to inform best practices.

Keywords: Exercise psychology, Undergraduate Women, Peer-mentorship Program, Pandemic Recovery Era, Pilot Randomized Control Trial
*Section***:** Topic
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Dementia Moves: Testing a Rehabilitation Program for Long-Term Care Residents with Moderate to Severe Dementia

MacNinch, S.[1]
[1] School of Physiotherapy, Dalhousie University, Halifax, NS

Abstract

Introduction: Individuals living with dementia encounter many barriers, including completing activities of daily living (ADLs). The prevalence of dementia in Canada continues to increase alongside an aging population and increased need for long-term care (LTC) homes. Previous literature shows exercise is effective in preventing functional decline for those living with dementia, yet there is a lack in focus on long-term care residents.

Objective: The study objective is to measure the effect of Dementia Moves on ADLs for LTC residents with moderate to severe dementia.

Methods: Dementia Moves is an evidence-based exercise intervention for individuals living with dementia, consisting of moderate to high intensity endurance, strength, and balance exercises. A pre-post study will be conducted in two LTC homes in Halifax, NS. A sample of 16 residents, with moderate to severe dementia will be recruited to participate in individually tailored Dementia Moves sessions 3x/week for 6-months. Assessment will occur at baseline, 3- and 6-months for ADL measures, falls and adverse events through electronic medical records and InterRAI assessments.

Anticipated Results: We hypothesize the intervention to be implemented as planned and will have positive effects on ADLs seen through maintenance or slowed functional declines in ADL task completion.

Conclusion: Dementia Moves was created with the intention of providing an exercise intervention for residents with dementia in LTC, who lack inclusion in previous studies. Previous literature has indicated that the increase in residents with cognitive impairment in LTC homes plays a part in healthcare workforce burnout within these settings. If effective, this study will be used to inform a randomized control trial comparing the intervention to usual care and may have the possibility to increase independence in ADLs for residents with dementia and decrease burnout of healthcare staff in LTC.

Keywords: Dementia, Long-term Care, Rehabilitation, Physiotherapy, Activities of Daily Living
Section: Clinical Research
Presentation Format: Poster

HPJ
HEALTHY
POPULATIONS
JOURNAL

Barriers in Healthcare Institutions in Nova Scotia for People Living with Sight Loss

Herod, T.[1], Jennings, S.[1], Taylor, V.[1], & Mishra, A.[2]
[1] School of Medicine, Dalhousie University, Halifax, NS
[2] Department of Ophthalmology and Visual Sciences, Dalhousie University, Halifax, NS

Abstract

Introduction: It is well understood that people living with sight loss face unique barriers in accessing health care. Despite emphasis on making the delivery of healthcare more accessible, health disparities continue to persist for those living with sight loss.
Objective: The purpose of this study was to identify barriers existing within healthcare institutions in Nova Scotia for people living with sight loss.
Methods: This study received ethics approval by Nova Scotia Health. One-on-one semi-structured interviews were conducted with people living with sight loss in Nova Scotia that were ⍰ 18 years old. Interviews were conducted using Microsoft Teams and analysed using thematic analysis. Members of the research team independently grouped data into themes, and then collectively reviewed, refined, and reconciled themes until consensus was met.
Results: Presently, seven interviews have been completed (with five more planned for early 2025), revealing two major themes. The first was that healthcare institutions impose barriers stemming from a lack of universal design principles, such as electronic self-check-in kiosks, signage lacking brail or high-contrast fonts, and waiting rooms that use a "take a number" system. The second theme was that barriers often stem from unconscious ableism. References were made to healthcare workers entering patient rooms unannounced and under the assumption that they can be seen, resulting in induced anxiety and challenges around food delivery.
Conclusion: A variety of modifiable barriers exist within healthcare institutions that continue to make accessing health care daunting for people living with sight loss. Greater emphasis must be placed on ensuring healthcare institutions are designed with accessible options in mind. Additionally, more education needs to be provided to healthcare providers on awareness and best practices for people living with sight loss.

Keywords: Sight Loss, Accessibility, Healthcare
Section: Health Inequity
Presentation Format: Oral

HPJ
HEALTHY
POPULATIONS
JOURNAL

The Female Experience of Early Phase Psychosis and Perceived Barriers to Accessing Early Intervention Services

Dempster, K.[1], Hodgson-Pageau, E.[2], & Puiras, E.[1]
[1] Nova Scotia Early Psychosis Program, Dalhousie University, Halifax, NS
[2] Department of Psychology and Neuroscience, Dalhousie University, Halifax, NS

Abstract

Introduction: Early intervention services (EIS) improve outcomes for patients with psychotic spectrum disorders. A sex or gender-based diagnostic bias may delay diagnosis and access to EIS, with evidence suggesting females with psychotic spectrum disorders are less likely than males to access these services. Differences in the presentation of psychosis between sexes, specifically in affective and negative symptoms, may influence these differential referral patterns. Women also typically have better social functioning at symptom onset, which can contribute to delays in intervention. Additionally, there is a paucity of research on the effect of gender-specific stigma in accessing EIS for psychosis.

Objective: This study aims to qualitatively explore how the female presentation of psychotic spectrum disorders as well as social factors impact their access to EIS.

Methods: Semi-structured interviews with 10-15 participants are being conducted in fall 2024 and winter 2025. A convenience sample is being drawn from the ~75 female patients currently being treated at NSEPP. Transcripts will be analyzed independently by two researchers using inductive thematic analysis methodology on NVivo software. A retrospective chart review will also be conducted for each participant to obtain detailed demographic information.

Results: Interim analysis of the 8 interviews completed to date revealed 3 main themes: Anxiety while seeking care, dismissal of symptoms by others, and self-stigma. Data saturation is expected after 10-15 participants have been analyzed. The average age of participants is 25.2 years, with a range of 21 to 29. Data analysis will be complete by February 2025.

Conclusion: Females with psychotic spectrum disorders referred to NSEPP describe increased anxiety, self-stigma and dismissal of their symptoms prior to accessing EIS. This study may help elucidate female-specific experiences of seeking care for psychosis and highlight sex and gender-based barriers to EIS.

Keywords: Psychotic Disorders, Health Services Accessibility, Sex Characteristics
Section: Mental Health
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Qualitative Exploration of Parental and Child's Perspectives on School Streets Pilot Program in Halifax

Kondo, C.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: Active School Travel (AST) is a term used to describe children's active travel to school by walking, cycling and wheeling. AST has various benefits for children, such as better physical and mental health and independence. However, car-centric city design and the lack of safe AST infrastructure make it difficult for children and their parents to choose AST as their travel mode to and from school. To encourage children to use AST, we have to create safe and accessible environments. School Streets are interventions with the potential to increase the use of AST by closing the roads around schools during drop-off and pick-up times, or permanently creating a car-free environment around schools. A School Streets pilot program was conducted in two elementary schools in the Halifax Regional Municipality (HRM) in October and November, 2024.

Objective: This study aimed to explore the AST experiences of children and parents who used it on a daily basis, and to understand their perspectives on the School Streets pilot program prior to its implementation.

Methods: This study employed a qualitative description. Data were collected through semi-structured interviews with children who used AST and attended schools in urban areas of HRM, as well as their parents. Inductive content analysis was used to generate themes, and then the findings were contextualized to existing literature in the socio-ecological framework.

Results: A total of 10 parents and children dyads were interviewed. Four themes were generated: (1) AST is a desirable travel mode for children; (2) AST needs support and investment; (3) School Streets are community streets; and (4) Support for School Streets comes in many forms. **Conclusion**: The choice of using AST is influenced by broader factors rather than individual ones. Therefore, we need to create safer and more supportive environments for AST through policy implementations and community engagement to increase its use.

Keywords: Health Promotion, Active School Travel, Socioecological Model
Section: Population Health
Presentation Format: Poster

HEALTHY POPULATIONS JOURNAL

Abstract

Understanding the experience of physical disability among people living with HIV: A Qualitative Study

Shahzadi, A.[1], O'Brien, K.[2], McArthur, C.[1], Barrett, L.[3], Miller, A.D.[4], & Quigley, A.[1]

[1] School of Physiotherapy, Dalhousie University, Halifax, NS, Canada
[2] Department of Physical Therapy, Temerty Faculty of Medicine, University of Toronto, ON, Canada
[3] School of Medicine, Dalhousie University, Halifax, NS, Canada
[4] School of Health and Human Performance, Dalhousie University, Halifax, NS, Canada

Abstract

Introduction: People living with HIV (PLHIV) can experience physical impairments (e.g. balance problems) and activity limitations (e.g. mobility difficulties), which can lead to participation restrictions (e.g. difficulty working), defined as physical disability.

Objective: The purpose of this study is to understand the experiences of physical disability (presence and impact) among PLHIV. The secondary objective is to understand the influence of contextual factors on physical disability (extrinsic and intrinsic) among PLHIV.

Participants: PLHIV aged 18 years or older living in Nova Scotia, who self-identify as having a physical disability.

Methods: I will conduct a qualitative descriptive study involving online semi-structured interviews via Zoom. The interview guide, developed using the Episodic Disability Framework and items from existing physical performance measures, will include questions about challenges with balance and mobility. I will administer the World Health Organization Disability Assessment Schedule (WHODAS 2.0) questionnaire to describe general disability, and a demographic questionnaire to describe personal and HIV characteristics (e.g., age, gender, race and time since HIV diagnosis). Data will be analyzed using hybrid inductive-deductive thematic analysis. Descriptive statistics will be calculated for the demographic and WHODAS 2.0 questionnaires.

Anticipated Results: This study aims to describe experiences of physical disability, the impact on daily life, and the contextual factors (intrinsic and extrinsic) that shape these experiences among PLHIV in Nova Scotia.

Conclusion: Highlighting the lived experiences of physical disability and associated contextual factors may inform the development of effective rehabilitation strategies aimed at improving functional outcomes and enhancing the health of PLHIV.

Keywords: HIV, Physical Disability, Rehabilitation
Section: Population Health
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Exploring Nova Scotia Youth Experiences in Nature and Perspectives on How Nature Impacts Mental Health and Well-being

Pawelko, S.E.[1], Kwan, M.[2], Campbell, J.[2], Truong, S.[1], Feicht R.[2,3], & Stone, M.R.[2,3]
[1] Faculty of Science, Dalhousie University, Halifax, NS
[2] School of Health and Human Performance, Faculty of Health, Dalhousie University, Halifax, NS
[3] Healthy Populations Institute, Dalhousie University, Halifax, NS

Abstract

Introduction: Youth mental health in Canada is declining and is particularly concerning in Nova Scotia (NS). Poor mental health during childhood or early adulthood can put individuals at risk for negative life outcomes. Disconnection with nature has been theorized to be a risk factor for the decline in youth mental health. Therefore, reconnection with nature can be a valuable intervention to support youth mental health. Evidence is growing for the benefits nature for mental health.

Objective: The purpose of this thesis was to explore NS youths' experiences in nature and perspectives about the benefits, as well as barriers and influencers of engaging with nature for youth mental health.

Methods: Two Focus groups were conducted with youth ages 13-19 from partner organizations Leave Out Violence (LOVE) NS (n=12) and Halifax Regional Municipality (HRM) Youth (n=6). Transcripts from focus groups were analyzed through Reflexive Thematic Analysis (RTA) supported by NVivo.

Results: Forty-eight codes were developed, and five themes were constructed: (1) Growing together: tides of connection; (2) Kindred earth: appreciation and empathy for nature; (3) Nature with instructions; (4) A haven of green: nature as a refuge; (5) Beyond the trailhead: a place to become.

Conclusion: Findings from this study support the benefits of nature for youth mental well-being as connection with others, feelings of calmness, and development of key skills like resilience, empathy, and confidence. Both tangible and intangible barriers and facilitators, like transportation or lack of energy, were identified. Insights are being integrated into a youth-informed survey that will be disseminated across NS. This will inform stakeholders (policymakers, health care providers, educators and researchers) about NS youths' perspectives on nature to develop and implement nature-based interventions for youth mental health.

Keywords: Mental Health, Nature, Co-Design, Nature Based Interventions, Youth Engagement
Section: Mental Health
Presentation Format: Poster

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Indigenous voices: Exploring pathways of Indigenous post-secondary student-athletes

Tomyn, M.[1]
[1] College of Kinesiology, University of Saskatchewan, Saskatoon, SK

Abstract

Introduction: Saskatchewan has one of the largest Indigenous populations in Canada, comprising 17% of the province (Statistics Canada, 2022). However, Indigenous student-athletes account for only 3% (13 out of 420) of the University of Saskatchewan's athletic population (N. Orr, personal communication, October 2023). This significant disparity raises an important question: Why do Indigenous student-athletes remain underrepresented in post-secondary sport? Existing literature points to disparities in access to sport, physical activity, and education for Indigenous communities, which are deeply rooted in the enduring impacts of colonization. However, while these disparities are well-documented, there is comparatively little known about the unique experiences of Indigenous athletes in this context, and their perspectives remain underrepresented in the existing body of literature.

Methods: To explore this issue, we conducted a narrative inquiry to better understand the sport and educational pathways of Indigenous student-athletes at the University of Saskatchewan. Narrative inquiry, with a focus on storytelling and temporality, provided a way for participants to share their unique experiences across the past, present, and future, while recognizing that these are shaped by complex socio-cultural contexts (Caine et al., 2020). Data collection involves three in-depth conversations with each participant. Each conversation is audio-recorded, transcribed, and analyzed using Clandinin's (2013) three-dimensional narrative inquiry framework, considering temporality, place, and sociality.

Results: Findings highlight the importance of strong support networks, access to infrastructure, quality education, and high-level training in fostering the success of Indigenous student-athletes.

Conclusion: These insights offer valuable guidance for improving support systems and shaping future initiatives aimed at increasing Indigenous representation and success in post-secondary sport.

Keywords: Indigenous Health, Narrative Inquiry, Student-Athletes, Post-Secondary
Section: Kinesiology
Presentation Format: Oral

HEALTHY POPULATIONS JOURNAL

Abstract

How was the hospital?: A qualitative study of sources of distress in cardiac inpatients in a Canadian hospital

Beiles, Z.[1]

[1] University of King's College, Halifax, NS

Abstract

Introduction: Hospitalization can significantly impact the mental health of cardiac patients, often leading to symptoms of anxiety and depression. This study explores in-hospital factors contributing to these symptoms.

Methods: Semi-structured interviews were conducted at the 6.2 in-patient cardiology ward at the QEII Hospital in Halifax, NS. Patients admitted to the cardiology in-patient ward were interviewed between November 2023 and April 2024. All interviews were audio-recorded, transcribed and coded using Nvivo.

Results: We interviewed 21 patients (19 male; 3 female) ages 34 to 81. We identified 11 main themes which were organized into two main categories: negative patient experiences and positive patient experiences. Within the negative patient experiences, 8 themes were identified: (1) unsatisfactory hospital food, (2) difficulties with sleep, (3) hygiene concerns, (4) physical control, (5) access to information, (6) domestic concerns, (7) mistrust or lack of access to primary care, and (8) restlessness. Within the positive patient experience, 3 themes were identified: (1) Patient-provider interactions, (2) patient-patient interactions and (3) Limited expectations. Many of the barriers to mental wellness that patients describe were predicated on the loss of activities of daily living. Conversely, positive experiences were predicated on experiences that helped patients regain a sense of control and personhood, particularly through the interpersonal relationships. Giving patients opportunities to practice autonomy in their activities of daily living throughout their in-patient hospital stay might encourage mental wellness in cardiac in-patients.

Conclusion: Hospitalization in a cardiac setting often results in an avoidable decrease in levels of perceived control. Modifications to the hospital environment should be considered in order to optimize opportunities for patients to enact control over their self-care and social life.

Keywords: Cardiology, Hospitalization, Mental Health, Internal-External Control
*Section***:** Mental Health
Presentation Format: Poster

HEALTHY POPULATIONS JOURNAL

Abstract

Cerebellar Inhibition and Internal Modelling in Prism Adaptation

Cramer, B.[1], Rowe, J.[2], & Boe, S.[2]
[1] Department of Psychology and Neuroscience, Dalhousie University, Halifax, NS
[2] Faculty of Health, Dalhousie University, Halifax, NS

Abstract

Introduction: Physical practice is the gold standard for motor learning. Internal models – neural mechanisms that make and predict movement outcomes by comparing expected and actual sensory feedback – play a critical role in motor learning during physical practice. Despite this, their specific role in prism adaptation, a paradigm where adaptation is theorized to rely on internal models, remains unexplored. We can determine the involvement of internal models in physical practice by disrupting their primary locus, the cerebellum.

Objective: Thus, this study aims to clarify the role of the cerebellum in internal modelling within the context of a prism adaptation paradigm.

Methods: To determine whether cerebellar inhibition disrupts internal modelling in physical practice, up to 60 participants will practice a reach-and-point task while exposed to a 17° leftwards prism shift after receiving continuous theta burst stimulation (cTBS) to the cerebellum or a sham stimulation (cTBS-sham). Degree of aftereffects and magnitude of pointing errors will be assessed through a two-way analysis of variance, with factors of group and timepoint.

Anticipated Results: If cerebellar inhibition can disrupt internal models during prism adaptation, we hypothesize that the cTBS group will commit more pointing errors and exhibit a smaller degree of aftereffects (pointing in the opposite direction of the prism shift, i.e., rightwards) compared to the cTBS-sham group.

Conclusion: Motor imagery, the imagination of movement, can facilitate motor learning, making it a valuable tool for rehabilitating brain injuries that impair movement, such as stroke. To understand how motor imagery facilitates learning, we first must explore the role of internal models in physical practice. This study will establish a foundation for the role of internal models in physical practice, then, using cerebellar inhibition, we can explore the mechanisms underlying motor imagery-based learning.

Keywords: Motor Learning, Internal Models, Prism Adaptation, Transcranial Magnetic Stimulation
Section: Kinesiology
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

The Ethical Dilemma of Conscientious Objection to Medical Assistance in Dying

Tisi, M.[1]
[1] Faculty of Social Science, McMaster University, Hamilton, ON

Abstract

Introduction: Since the introduction of medical assistance in dying (MAiD) into the Canadian healthcare system in 2016, protecting the rights of patients and providers has been at the forefront of legislation and policy. This research project will focus on conscientious objection (CO) policies including procedures for objecting to MAiD, wherein a healthcare provider (HCP), or institution, can opt out of providing MAiD to a patient based on underlying personal values. The objecting HCP or institution must continue to provide care to the patient, pending an effective referral and/or transfer to a willing HCP and institution.

Objective: In the context of MAiD, this research project seeks to examine if Ontario's CO policy and procedure protect the autonomy of the HCP while effectively honouring the patient's request.

Methods: This project utilizes a secondary qualitative methodology, drawing on existing MAiD policies to outline the CO procedure. The analysis also includes a thematic examination of secondary data, such as publicly available interviews and studies, to assess how CO affects HCPs and patients.

Anticipated Results: The anticipated results of this research project are to discern the ethical permissibility of CO to MAiD and to highlight the potential negative impact that Ontario's CO policy may have on patients and patient care, creating inequities within MAiD legislation and policy.

Conclusion: This research is significant because it contributes to the evolving body of research surrounding MAiD and highlights the gaps in existing MAiD policies that may contribute to inequitable and unethical healthcare in Canada.

Keywords: Ethical Dilemmas, Role Conflict, Death, Assisted, Conscientious Refusal to Treat
Section: Health Policy/Law
Presentation Format: Poster

HEALTHY POPULATIONS JOURNAL

Abstract

Fostering Teacher Wellness to Support Movement Integration in the Classroom

Sobolewski, K.[1]
[1] College of Kinesiology, University of Saskatchewan, Saskatoon, SK

Abstract

Introduction: Only 39% of Canadian children and youth meet the recommended physical activity (PA) guidelines. To combat this, movement integration (MI) opportunities have been developed as a strategy to incorporate PA into classrooms; however, teachers often encounter intrapersonal barriers that hinder their MI implementation in the classroom. Elevated levels of occupational stress and burnout among teachers negatively impact their health and wellbeing, limiting opportunities to prioritize their own PA. Research indicates that teachers who value and engage in PA are more likely to implement MI in their classrooms (Webster et al., 2015).

Objective: Therefore, this research aims to determine whether improving teachers' own PA, health, and wellbeing prior to a job-embedded MI intervention results in a greater impact on student PA and wellbeing.

Methods: This project comprises of three phases; however, this presentation will focus exclusively on phase one. Utilizing a mixed-methods design, teachers (n=6) from one school in Saskatoon participated in an 8-week behaviour change intervention featuring weekly 1-hour sessions guided by self-efficacy theory (Bandura, 1977) and incorporating movement. Teachers participated in a focus group interview post-intervention to share their experiences.

Results: While there were no significant differences, percent-of-change increases were noted in specific health and wellness outcomes among low-active teachers. Four themes were generated: (a) past, current and future PA trends, (b) realties of teacher wellbeing, (c) intervention satisfaction, and (d) valuation vs. prioritization of PA.

Conclusion: Enhancing teacher health and wellness has the potential to positively influence student health and PA behaviours in addition to teachers' approaches to PA promotion in the classroom.

Keywords: Intervention, Health Promotion, Physical Activity
Section: Kinesiology
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Mapping the Nutritional Status of Children Aged 0-59 Months Diagnosed with Cerebral Palsy: A Scoping Review

Gray, M.[1,2,3], Slipp, N.[2], Bernasky, T.[4], Waugh, R.[2], Sim, M.[1], Radin Pereira, L.[5], & Grnat, S.[1]
[1] Faculty of Health, Dalhousie University, Halifax, NS
[2] Mount Saint Vincent University, Halifax, NS
[3] IWK Health, Halifax, NS
[4] Cape Breton University, Sydney, NS
[5] University of Calgary, Calgary, AB

Abstract

Introduction: Understanding the nutritional status of children diagnosed with cerebral palsy (CP) aged 0-59 months is important for policy, practice, and research. The early months of life is a critical time period time period for children's growth and development, also known as the "window of opportunity", which represents foundational and vulnerable years for nutrition and health.

Objective: The objective of this scoping review is to identify, summarize, and map the available evidence on the nutritional status (concept) of children between the ages of 0-59 months diagnosed with CP (population), globally (context).

Methods: This scoping review is guided by the JBI methodology for scoping reviews and will be reported according to the PRISMA Extension for Scoping Reviews. Child Development & Adolescent Studies (EBSCO), Cochrane Database of Systematic Reviews (Cochrane), Cumulated Index to Nursing and Allied Health Literature Plus (EBSCO), MEDLINE (EBSCO), and Google (gray literature) have been searched using a search strategy developed by an Information Scientist (NS). Title and abstract screening, full-text screening, and data extraction will be conducted by two independent reviewers.

Anticipated Results: This scoping review aims to address the gaps in the literature regarding the nutritional status of children, aged 0-59 months, diagnosed with CP. It is anticipated that our population will present in the lower weight-for-age, length-for-age, and weight-for-length percentiles. Results will be presented in tabular and graphical form with narrative summary.

Conclusion: This scoping review aims to inform future dietetic practice, policies, and interventions specifically developed to improve the nutritional status of children diagnosed with CP.

Keywords: Cerebral Palsy, Nutrition, Children
Section: Population Health
Presentation Format: Poster

HPJ
HEALTHY POPULATIONS JOURNAL

Abstract

Relationship of three-dimensional and two-dimensional lower extremity landing mechanics following ACL reconstruction

Galloway, E.[1], Murphy, C.[2], Rutherford, D.[1], Landry, S.[3]
[1] School of Physiotherapy, Dalhousie University, Dalhousie University, Halifax, NS
[2] Faculty of Health, Dalhousie University, Halifax, NS
[3] School of Kinesiology, Acadia University, Wolfville, NS

Abstract

Introduction: Anterior cruciate ligament (ACL) injuries are common in sport and require a collaborative team of professionals to diagnose, treat and rehabilitate. Dynamic knee valgus (DKV), a common ACL injury mechanism, is crucial to measure, but challenging, as the movement occurs in three-dimensions (3D). It is hypothesized the frontal plane projection angle (FPPA), a two-dimensional measure of knee motion, could predict the DKV in a healthcare setting.
Objective: The purpose was to investigate the relationship between the FPPA and 3D mechanics of the lower extremity in asymptomatic individuals and those who have received ACL reconstructive surgery to assess FPPA as a clinical tool.
Methods: Twenty-five individuals who received ACL reconstructive surgery within two years, and 25 asymptomatic controls were recruited and informed consent was obtained. Participants performed single leg drop landings from a 30 cm box. Lower extremity motion and ground reaction forces were recorded using 3D motion capture and embedded force plates respectively during landing. Multiple regression models, with group as a factor were used to determine the relationship between peak FPPA and peak knee adduction, hip adduction and knee adduction moments. Statistical significance was set to $\alpha = .05$.
Results: Group was not a significant predictor of peak FPPA in any of the models ($p > .05$). The models including knee adduction ($p < .001$) and hip adduction ($p < .001$) were significantly related to peak FPPA, with a negative and positive relationship, respectively. Knee adduction moment was not significantly related to peak FPPA during landing ($p = .119$). The models accounted for 28.5%, 28.8% and 8.66% of the variance of peak FPPA, respectively.
Conclusion: Knee abduction and hip adduction were positively related to peak FPPA, suggesting that peak FPPA may capture the DKV during single leg landing. Knee adduction moment was not significantly related to peak FPPA suggesting use of FPPA may not be appropriate for assuming kinetics at the knee. Group association was not a significant contributor to the regression models suggesting no group relation to peak FPPA.

Keywords: Anterior Cruciate Ligament, Biomechanics, Single Leg Landing
Section: Kinesiology
Presentation Format: Poster

HEALTHY POPULATIONS JOURNAL

Abstract

Collaborative Clinical Approaches to Rotator Cuff Tear Management: Evaluating Pre-Surgical Outcomes

Rutherford, D.[1], Remedios, S., & Wong, I.[2]
[1] School of Physiotherapy, Dalhousie University, Halifax, NS
[2] Division of Orthopaedic Surgery, Dalhousie University, Halifax, NS

Abstract

Introduction: Rotator cuff (RC) tears are a leading cause of shoulder pain and dysfunction, significantly impacting everyday activities. A collaborative management approach is essential to minimize the negative impact on function associated with delayed treatment.

Objective: The aim of this study is to determine whether time from referral of the injury to surgery is associated with shoulder strength and patient-reported levels of function.

Methods: Thirty patients diagnosed with rotator cuff tears were recruited after signing informed consent. Demographics and time from referral to surgery were collected. Patients completed the Western Ontario Rotator Cuff Index (WORC) and American Shoulder and Elbow Surgeons (ASES) questionnaires. Shoulder muscle strength, including flexion, abduction, internal rotation, and external rotation, were measured using standardized procedures. Correlation analyses were performed between the referral-to-surgery interval and shoulder strength and patient-reported outcomes.

Anticipated Results: Preliminary analysis of 15 participants (target: 30) showed a mean age of 63.5 years, 75% male, a BMI of 28.8 kg/m^2, and an average referral-to-surgery interval of 27.71 months. WORC and ASES scores and abduction and internal rotation showed a non-significant ($p>0.05$) but a moderate negative correlation with referral-to-surgery time ($r = -0.336; -0.317; -0.392; -0.463$), suggesting potential impairments in patient-perceived function with longer delays. Flexion and external rotation exhibited weak and non-significant correlations with referral-to-surgery time ($p>0.05$). With a larger sample size, we hypothesize stronger associations between referral-to-surgery time and functional outcomes.

Conclusion: Longer referral-to-surgery intervals may impair function and strength. Collaboration among physical therapy, surgical care, and biomechanics is vital to optimize outcomes and guide tailored interventions for effective rotator cuff tear management.

Keywords: Rotator Cuff Tears, Patient Reported Outcome Measures, Shoulder Strength, Surgical Timing, Rehabilitation Outcomes
Section: Kinesiology
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Toward Global Health Equity in Endometriosis: A Relational Framework for Canadian Policy Reform

Haghighi, A.[1]
[1] Lincoln Alexander School of Law, Toronto Metropolitan University, Toronto, ON

Abstract

Introduction: Endometriosis is a chronic, inflammatory disease affecting approximately one in ten people worldwide, yet it remains underdiagnosed, underfunded, and undertreated. Dominant health policies often frame endometriosis as an individual issue rooted in personal responsibility, overlooking the systemic barriers that perpetuate diagnostic delays and inadequate care. This research critiques prevailing individualistic paradigms and advocates for a relational approach to endometriosis care in Canada, with global implications.

Methods: A qualitative legal and policy analysis was conducted, drawing on feminist legal theory, vulnerability theory, and relational frameworks. Through autoethnographic reflection on personal healthcare experiences, combined with a review of Canadian health legislation and key jurisprudence (e.g., Chaoulli v. Quebec), this study identifies systemic gaps in endometriosis care. Comparative policy examples from jurisdictions that have adopted robust endometriosis action plans are also examined.

Anticipated Results: Findings highlight pervasive diagnostic delays, inconsistent treatment pathways, and insufficient research funding. Anticipated outcomes include concrete policy recommendations to amend Ontario's Health Insurance Act and formalize out-of-country care coverage. Establishing a national action plan, increasing government funding, and adopting complex benign gynecology subspecialties are proposed to mitigate vulnerability and promote equitable access.

Conclusion: Emphasizing relational interdependence reframes endometriosis as a societal concern rather than a personal deficit, necessitating collective responsibility and targeted reforms. By realigning legislative and funding priorities, Canada can enhance quality of life for those affected, serving as a model for global health equity in women's chronic disease care.

Keywords: Endometriosis, Women's Health, Health Policy, Global Health, Health Services Accessibility
*Section***:** Health Policy/Law
Presentation Format: Oral

HEALTHY POPULATIONS JOURNAL

Abstract

The Side Effects of OHIP's Gender Affirming Surgery Funding Regime: A Section 12 Charter Analysis

Abramson, J.[1]
[1] Osgoode Hall School of Law, York University, Toronto ON

Abstract

Introduction: This paper examines Ontario Health Insurance Plan's (OHIP) funding regime for gender affirming surgery through the lens of section 12 of the Canadian Charter of Rights and Freedoms. Section 12 is concerned with human dignity and limiting state power where individuals may be subject to excessive, degrading or dehumanizing forms of treatment or punishment by the state. The OHIP regime is a rare example of state-imposed deprivation of and delayed access to medically necessary health care for a vulnerable and disadvantaged minority.

Methods: This paper explores the history and current state of gender affirming care in Ontario; applies principles of statutory and constitutional interpretation; and analyzes and applies section 12 Charter jurisprudence and secondary sources to the OHIP regime's effects on transgender individuals.

Results: The analysis reveals three side effects of the OHIP regime that amount to cruel and unusual treatment in their methods and severity: 1) lengthy delays sourcing to extensive pre-requisites; 2) pathologization of transness by requiring a psychiatric disability diagnosis to access gender affirming surgery; and 3) imposing unnecessary surgeries and/or sterilization on trans individuals.

Conclusion: The paper concludes that the OHIP regime violates section 12 of the Charter. It proposes two alternatives: updating the regime to align with current World Professional Association for Transgender Health Standards of Care 8 or adopting a model akin to the Ontario Fertility Program. This analysis contributes to urgent discussions on access to gender affirming care and the rights of transgender individuals in Canada.

Keywords: Transgender Health, Gender-affirming Care, Cruel and Unusual Treatment, Nonbinary, OHIP
Section: Health Policy/Law
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Public Safety Measures Criminalizing Safe Consumption Sites: Human Rights Violations in Ontario's Bill 223

Moll, S.[1]
[1] Lincoln Alexander School of Law, Toronto Metropolitan University, Toronto, ON

Abstract

Introduction: This timely paper examines Ontario's Bill 223, the Community Care and Recovery Act, which criminalizes safe consumption sites (SCS) and revokes access to harm reduction services in Ontario.

Objective: The study analyzes the bill's impact on substance users' rights and its alignment with national and international human rights frameworks.

Methods: A critical discourse analysis approach is applied to examine the Act's implementation, its goals, and accompanying rhetoric. The paper reviews relevant legislation, court cases, and policy documents, including the Canadian Charter of Rights and Freedoms, the Canada Health Act, and international conventions.

Results: The analysis reveals that Bill 223 violates multiple human rights provisions, including the right to life, liberty, and security of the person. The closure of SCS is expected to lead to increased overdose deaths and exacerbate health inequities among marginalized populations. The Act's punitive measures, including fines and imprisonment for "ongoing trespass," are likely to disproportionately affect indigent substance users and unhoused individuals.

Conclusion: Bill 223 represents a significant regression in public health policy and human rights protection in Ontario. By criminalizing evidence-based harm reduction approaches, the Act contradicts established medical best practices and international human rights obligations. This study highlights the need for sustained civil society engagement and strategic mobilization to protect the rights of vulnerable populations and uphold Canada's commitments to universal, accessible, and comprehensive healthcare.

Keywords: Safe Consumption Sites, Substance Use, Criminalization, Global Health Law, Public Health
Section: Health Policy/Law
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Changes in activation in the prefrontal and premotor cortices during simple and complex dual-tasks in stroke survivors

Myatt, S.[1] & Quigley, A.[2]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS
[2] School of Physiotherapy, Dalhousie University, Halifax, NS

Abstract

Introduction: Stroke is currently the leading cause of adult neurological disability in Canada with over 60% of survivors experiencing walking difficulties that necessitate rehabilitation. Dual tasking worsens motor performance post stroke and research indicates that injuries to the premotor and prefrontal areas hinder dual-task walking in stroke survivors.

Objective: This study aims to estimate the change in brain activation in these regions during a simple and complex dual-tasking activity in chronic stroke survivors.

Methods: We will collect baseline data from 30 participants recruited from the Nova Scotia Rehabilitation and Arthritis Center and stroke recovery clubs. Participants will undergo a single task (walking) and a simple (repeating a given word while walking) and complex (verbal fluency task while walking) dual-task activity while using an omni-directional treadmill. A MATLAB script will be used to randomize the order of the conditions. Brain activation data from the prefrontal and premotor cortices will be collected during each task using functional near-infrared spectroscopy (fNIRS), followed by co-registration using template brains in Brainsight. Data collected by fNIRS will be preprocessed using a pipeline that produces concentrations of oxyhemoglobin and deoxyhemoglobin which represent markers of brain activation. Data will be analyzed using a linear mixed model analysis.

Anticipated Results: We expect an increase in brain activation in the prefrontal and premotor cortices between the single task and the simple dual-task but no change in brain activation between the simple dual-task and the complex dual-task. This is because we expect a decrease in walking speed as the brain shifts its resources to the verbal fluency task.

Conclusion: Our findings will infer brain activity levels in the premotor and prefrontal cortices, providing a foundation for future research evaluating stroke rehabilitation that will optimize brain activation in these areas.

Keywords: Stroke, Dual-Tasking, fNIRS
*Section***:** Clinical Research
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

From Classroom to Cubicle: A Qualitative Exploration of Health and Leisure Student Intern Mental Health

Bedell, J.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: Internships offer critical experiential learning for undergraduate students, yet the mental health experiences of interns in health and leisure programs remain underexplored. This study investigates these experiences in Health Promotion (HPRO), Recreation Management (RM), and Therapeutic Recreation (TR) internship programs at an Atlantic Canadian University.

Objective: The purpose of this qualitative descriptive study was to understand the mental health experiences associated with internships of undergraduate post-secondary students in the identified health and leisure internship programs. To achieve this purpose, I investigated two research objectives: 1) to identify, explore, and understand factors influencing student mental health while preparing for internship, and 2) to identify, explore, and understand factors influencing student mental health during internship.

Methods: Guided by a constructivist worldview, my study employed Reflexive Thematic Analysis (RTA) to analyze data from 10 semi-structured virtual interviews with participants aged 22 to 29 (mean: 24.23 ± 2.42). My positionality and reflexivity as the researcher were integral throughout the research process.

Results: Four main themes were developed through analysis: (1) Preparing for Internship: Balancing Excitement and Stress, (2) Empowered Interns: Achievement and Growth, (3) Navigating Role Transitions and Mental Health During Internship, and (4) The Cost of Experience: Mental Health Challenges in Unpaid Internships.

Conclusion: This thesis highlights various factors affecting mental health during internship preparation and completion, emphasizing the need for robust support and resources. The insights from my study can inform the development of better support structures for students in future internship programs.

Keywords: Internship, Intern Wellbeing, Experiential Learning, Qualitative Description, Reflexive Thematic Analysis
Section: Mental Health
Presentation Format: Poster

HPJ
HEALTHY
POPULATIONS
JOURNAL

Abstract

Supporting Donors and Attorneys: A Study of Power of Attorney Resources in Nova Scotia

Burns, D.[1]
[1] Schulich School of Law, Dalhousie University, Halifax, NS

Abstract

Introduction: My research explores supported decision-making in finances and property, specifically, whether or how educational resources addressing Nova Scotia's recently-reformed Powers of Attorney Act might help foster a culture of supported decision-making and increase autonomy of aging individuals and persons with disabilities.
Methods: Comparative legal research was used to develop educational resources and tools to support powers of attorney ("POA"). Empirical research was undertaken as part of this thesis to collect data on participant use of the developed educational resources and tools. Thematic analysis was used on the data to identify themes of trust, technology, and complex, overlapping identities involved in financial and property decision-making.
Results: I present findings from my empirical study of participants' use of the tested resources. I identify that people making and exercising authority under a POA behave relationally and rely upon trusted institutions to provide resources to offset burdensome family and financial duties. Further, by providing education and resources to the public, I found increased reported confidence and understanding of the various duties engaged by a POA.
Conclusion: Legislative amendments provide opportunity to support the aging population and people with disabilities in exercising their rights to property and finances and associated social determinants of health. To date there are no regulations addressing the operationalisation of these amendments, presenting an opportunity to test resources and inform regulatory and policy development. Drawing on the research data, I provide recommendations for civil society and government to increase access to justice and advance a culture of supported decision-making.

Keywords: Policy Development, Disability Discrimination, Accountability
Section: Health Policy
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Amplifying Youth Voice Living with a Disability through Accessibility Awareness Event

Higgins, A.[1], Bernard, V.[2], Frittenburg, H.[2], Sheriko, J.[3], Locke, M.[1], So, S.[1], & Moore, S.A.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS
[2] Patient Partner
[3] School of Medicine, Dalhousie University, Halifax, NS

Abstract

Introduction: Youth living with disability deserve to have their voice heard around accessibility within their communities. Holding events where youth are involved and heard destigmatizes disability and improves overall well-being of individuals living with a disability. It is imperative to provide an environment where youth living with disabilities are comfortable to share their experiences in daily life to improve their overall wellbeing.

Methods: In Nova Scotia, approximately one in five children live with at least one disability, more than any other province or territory in Canada. To amplify the voices of youth living with a disability the Disability Youth Advisory Panel was created, with two youth co-chairs who led the direction of initiatives. The panel aimed to support advocacy work to improve accessibility and support the overall wellbeing of youth living with disability in our city. This project is guided by the principles of Youth Participatory Action Research (YPAR). YPAR is an approach that conducts work with children rather than on them to address social problems through youth-adult partnerships. The youth co-chairs planned the accessibility awareness event including the viewing of a paralympic film and a panel discussion, including 2 youth and 2 adults, to discuss accessibility. The panel discussion focused on the health and well-being of youth with disabilities and the accessibility and inclusion of youth with disabilities in Nova Scotia.

Conclusion: Prioritizing accessibility for youth living with disability leads to higher well-being. Having spaces where youth can be heard and share their experiences, as well as connect with peers strengthens their own advocacy skills.

Keywords: Accessibility, Youth Well-being, Pediatric Disability
*Section***:** Health Policy
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

IWK's Transition to Adult Care Framework: Integrating a coordinated, consistent structure into transition practice

Higgins, A.[1], & Pidduck, J.[2]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS
[2] IWK Health, Transition Coordinator, Halifax, NS

Abstract

Introduction: IWK Health's Transition of Care Committee (TOCC) brings together patients, caregivers, health care providers and community partners from pediatric, primary, and adult care, with a goal of improving the transition from pediatric to adult health care in the Maritimes. TOCC partnered with the Maritime SPOR Support Unit to understand the barriers and facilitators of transition locally using qualitative and quantitative methods. Our qualitative findings outlined the importance of building transition knowledge for youth, caregivers and health care providers, balancing support and independence for youth and improving system coordination and communication.

Methods: Collaborating with Nova Scotia Health, an essential partner in adult care, provided a novel approach to the development of transition guidelines. The framework is shaped by three interconnected components of transition, as outlined by CHC, individualized planning, coordinated transfer and secure attachment to adult care. Three priorities of the framework were identified: equity, engagement, and evaluation. The framework is composed of definitions, overarching goals, guidelines, a measurement tool to support adherence to the framework as well as resources for all knowledge users.

Conclusion: Youth and caregivers have outlined the importance of having a consistent transition process across care teams. The Transition Framework looks to respond with a practical resource that highlights a structured approach and achievable goals to improve the transition from pediatric to adult care.

Keywords: Transition of Care, Pediatric Health, Health Policy
Section: Population Health
Presentation Format: Oral

Disparities in Primary Healthcare Access in Canada of the LGB (lesbian, gay and bisexual) Populations: 2017-2018

Jing, J.[1], Ahmadi, F.[1], Tanaka, M.[1], & Wilk, P.[1]
[1] Schulich School of Medicine & Dentistry, Western University, London, ON

Abstract

Introduction: Individuals identifying as lesbian, gay, and bisexual (LGB) in Canada are subject to a disproportionate burden of health disparities when compared to the heterosexual population. One of the disparities is primary healthcare access. However, evidence from Canada is limited.

Objective: The objective was to assess whether there are differences in access to a regular healthcare provider (RHCP) among individuals with different sexual identities, adjusting for individual-level factors.

Methods: Cross-sectional data from the 2017–2018 cycles of the Canadian Community Health Survey (CCHS) were used. 103,217 respondents, 15 years and older, who had revealed their sexual identity were included in the study. The primary outcome was not having a RHCP because of the failure to find one. We used multivariable logistic regression to investigate the association between sexual identity and not having a RHCP and assess whether income, alcohol intake, rural or urban location, and mental health could affect this association, following Andersen's framework while controlling for age and race status.

Results: Descriptive statistics showed bisexual participants had considerably lower access to an RHCP if they needed one. The results from multivariable analyses indicated a higher odds ratio of not having an RHCP among bisexual men, bisexual women and lesbians compared to their heterosexual counterparts (OR=1.55, 95% CI: 1.09-2.20; OR=1.36, 95% CI: 1.05-1.76; OR=1.65, 95% CI: 1.11-2.47) in the Canadian-born population. Respondents with higher income, less alcohol consumption and a stronger sense of belonging to the community were more successful in finding an RHCP.

Conclusion: The findings of this study provide important insights into the healthcare disparities in sexual minority populations and highlight the need for further research to understand the complex nature of healthcare access and utilization in different populations.

Keywords: Sexual and Gender Minorities, Access to Primary Care, Health Services Accessibility, Homosexuality, Bisexuality
Section: Population Health
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Smart Textiles and Autism Spectrum Disorder

Loredo-Ferriz, P.[1]
[1] Nova Scotia College of Art and Design University, Halifax, NS

Abstract

Introduction: Millions of people navigate the complexities of mental health conditions, including Autism Spectrum Disorder (ASD). Despite increased awareness, solutions for managing stress in adults with high-functioning ASD often overlook the value of design as a complementary approach.
Objective: This research investigates how textile design can provide non-invasive tools to support stress management and emotional regulation, addressing the specific needs and preferences of individuals with ASD.
Methods: Using a four-harness loom, experiments were conducted to create conductive textiles by weaving Atlantic wool with stainless steel thread. Patterns such as twill, broken twill, and basket weave were tested to assess their functionality. These smart textiles were paired with Arduino microcontrollers, GSR sensors, and visual feedback elements like LEDs to monitor stress levels in real time. The design process prioritized accessibility, simplicity, and adaptability, ensuring the results could integrate seamlessly into daily life.
Anticipated Results: Early prototypes demonstrate how these textiles can collect physiological data and provide instant sensory feedback, helping users recognize and regulate stress. The findings highlight the potential for design to complement therapeutic and adaptive strategies for individuals with ASD.
Conclusion: This project focuses on exploring the intersection of textile design and neuroscience to address stress management challenges. By embedding technology into wearable, non-invasive materials, smart textiles offer an intuitive solution tailored to the needs of adults with ASD. The research encourages further interdisciplinary collaboration to create accessible, personalized tools that enhance quality of life and foster inclusivity.

Keywords: Autism Spectrum Disorder, Textiles, Wearable Electronics Devices, Stress, Physiological, Neuroscience
Section: Applied Science
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Perceptions of Active Play and Physical Literacy in an After School Outdoor Loose Parts Intervention

Campbell, J.[1], Locke, M.[1], Stone, M.R.[1], Joshi, N.[1], & Feicht, R.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: Unstructured, outdoor play may offer unique benefits and opportunities for children and youth to promote physical activity (PA) and physical literacy (PL). Loose parts play is a type of unstructured play that has been linked to PA and PL in early childhood settings, but more research is needed in elementary age children.
Objective: This project aimed to explore educator and child perspectives of the impact of an outdoor loose parts play (OLPP) intervention on PA and PL in before and after school settings. **Methods:** This study was conducted in the context of the Physical Literacy in the Early Years (PLEY) School intervention. This paper combines qualitative data from focus groups and photo documentation with staff, and go-along interviews and photo elicitation with children from three distinct sites, using a relativist ontology, constructivist epistemology, and reflexive thematic analysis.
Results: Four themes were developed that relate to PA and PL and draw on the example of fort building. The first captures the spirit of play, with OLPP positively impacting motivation to participate; the second describes the dynamic play types that occur in OLPP; the third explains the diverse movements involved in OLPP; and the fourth demonstrates children's development of knowledge and understanding in movement as well as teamwork and communication required during OLPP.
Conclusions: This study highlights that OLPP is perceived positively by both educators and children in diverse sites and provides further evidence of its impact among school-aged children in after school settings. These are both a critical age and setting to implement movement and PL interventions to support lifelong PA and healthy development.

Keywords: Physically Active Learning, Physical Activity, Outdoor Loose Parts Play, School-Aged Children
Section: Kinesiology
Presentation Format: Oral

HEALTHY POPULATIONS JOURNAL

Abstract

The Effects of Extracorporeal Shockwave Therapy on Bone Mineral Density in an Osteoporotic Rat Model

Wright, A.[1]
[1] School of Kinesiology, Lakehead University, Thunder Bay, ON

Abstract

Introduction: Osteoporosis is a musculoskeletal disease that develops due to a variety of causes including post-menopausal changes. Approximately 1.5 million Canadians aged 40 and over have osteoporosis. Extracorporeal shockwave therapy (ECSWT) stimulates bone healing response and may increase bone density. Serum and bone-specific alkaline phosphatase are blood biomarker enzymes that detect bone changes, and if proven effective, can assess osteoporosis severity.
Methods: Using a laboratory rat and animal model protocol, 32 female rats will be included and placed into 4 groups. 16 rats will be ovariectomized to induce osteoporotic changes. The groups are as follows: (a) control without ovariectomy, (b) shockwave therapy without ovariectomy, (c) ovariectomy without shockwave therapy, (d) ovariectomy with shockwave therapy. Sixteen weeks after the ovariectomy, the treatment groups will receive five shockwave treatments, once per week to the right thigh. One week after the final treatment, blood will be extracted, the rats will be euthanized and right femur dissected for analysis. Blood and bone specimen will be examined for changes.
Anticipated Results: The results will show a bone density increase in the treatment group, which demonstrates that ECSWT is an effective treatment for osteoporosis. The results will show increased levels of serum and bone alkaline phosphatase where osteoporotic changes are more severe, proving a significant biomarker for osteoporosis.
Conclusion: The use of ECSWT to treat bone demineralization is significant since menopausal changes occur in women in later adulthood. Changes in estrogen disrupts the bone remodeling cycle, causing bone density to decrease. ECSWT may be useful as an adjunct and in combination with current treatments to enhance bone density, as well as a biomarker identified to monitor bone demineralization status in those experiencing osteoporotic changes.

Keywords: Extracorporeal Shockwave Therapy, Bone Mineral Density, Menopause, Osteoporosis
Section: Clinical Research
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Assessing the Impact of Climate Change on Food Insecurity: A Global Gender Based Analysis Across High Climate Risk Count

Geernaert, S.[1]
[1] School of Community Health and Epidemiology, Dalhousie University, Halifax, NS

Abstract

Introduction: Food insecurity (FI), exacerbated by climate change (CC), is a pressing global challenge facing many countries worldwide. Individual food insecurity is multifactorial in nature and largely driven by individual's affordability and utilization. Country level food insecurity is largely driven by climate change disruption to availability, accessibility to food supply and infrastructure across food chain.

Methods: The data analysis assesses the extent to which climate change attributes to food insecurity and how country level determinants such as human development index (HDI) moderate these effects using a country level assessment using three measures of climate (mean annual temperature and precipitation changes and the frequency of climate disasters) on the prevalence of two outcomes severe and moderate to severe food insecurity. Secondly, I intend to examine how the human development index (HDI) and gender development index, moderate the impact on all, males and females FI. Our dataset consists of 141 countries with FI data from Food and Agriculture Organization and with climate risk index (CRI) varying from 5.5 (Japan) to 125 (African and Caribbean) countries including Canada (CRI=28,13) for the years 2018-2023. Exploratory analysis will include spatial mapping of severe and moderate FI in high, low and medium CRI countries. Our time series data analysis is guided by the framework of Dasgupta and Robinson (2022) who applied FI and climate data for 17 regions using the model ($FIit = \beta Vit + \gamma Xit$, ith country t-year) Vit are climate anomalies and Xit are country level factors such as HDI.

Anticipated Results: Findings of my research will identify the impact of climate change on FI globally and also identify gender inequities on the impact. Secondly, confounding and effect modification based on HDI will identify the countries that are most vulnerable.

Conclusion: These findings will inform tailored strategies to mitigate FI by addressing climate change.

Keywords: Global Health, Climate Change, Food Insecurity
Section: Population Health
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Exploring Menopause: Beliefs, Perceptions, and Experiences of Immigrant Punjabi Women in Peel

Randhawa, T.[1]
[1] School of Public Health Sciences, University of Waterloo, Waterloo, ON

Abstract

Introduction: Menopause is a significant life transition, but Punjabi immigrant women in Canada face unique challenges shaped by sociocultural beliefs, stigma, and healthcare barriers. Despite these complexities, their experiences remain underexplored, leading to limited culturally responsive care.
Objective: This study investigates how cultural norms, immigration experiences, and social structures influence menopausal perceptions and healthcare practices among Punjabi women aged 35+ in the Region of Peel, Ontario.
Methods: Using a qualitative Constructivist Grounded Theory approach, this study will explore the lived experiences of menopause among Punjabi immigrant women. Semi-structured interviews will be conducted in English or Punjabi, preserving cultural nuances. Maximum variation sampling ensures representation across diverse socio-economic, educational, and immigration backgrounds. Data collection and analysis will proceed iteratively, with reflexivity minimizing researcher bias. Collaborations with trusted community organizations will foster rapport and enable open dialogue.
Anticipated Results: The study is expected to reveal how sociocultural beliefs, stigma, and immigration experiences shape menopausal perceptions. Anticipated findings include varied attitudes towards menopause, influenced by cultural and familial dynamics. Barriers to care, such as language challenges and limited culturally responsive services, are expected to emerge. The role of traditional practices and community support systems in managing menopausal symptoms will also be highlighted.
Conclusion: This research will inform culturally responsive healthcare practices, reduce stigma around reproductive health, and promote equity in care delivery. By addressing cultural and social factors, the study aims to empower Punjabi immigrant women to seek support, fostering health equity and improving outcomes for marginalized communities.

Keywords: Menopause, Immigrant Population, Health Equity, Healthcare Access, Cultural Belief
*Section***:** Health Inequity
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Understanding Nurse Technology Interactions Via Task Performance Analyses: A Systematic Review

Doan, A.[1] & Grewal, R.[1]
[1] School of Engineering and Computer Science, Laurentian University, Sudbury, ON

Abstract

Introduction: Given the rapidly evolving role technology plays in healthcare, nurses are often at the frontline of using these technologies and juggle various devices and systems to deliver care, manage patient data, and ensure patient safety. Despite the increasing role of technology in nursing practice, there is a significant gap in literature regarding the specific ways in which nurses authentically engage with these technologies. A closer examination of how nurses interact with these technologies in their daily workflows is needed to truly understand how technology is integrated into nursing workflows and how it affects quality of care and nurse performance.

Methods: A systematic review was conducted on existing time-motion studies, work sampling, and other task performance analyses that specifically included a focus on how any technology use is experienced in acute care nursing workflows.

Results: Broadly, technology use has been documented in the literature as accounting for upwards of 46% of nursing observations. However, among these observations the concept of "technology use" itself is often poorly defined, narrow, and inconsistent between researchers with the majority of studies solely focusing on the Electronic Health Record (EHR). Additionally, inconsistencies between the observation criteria of studies resulted in a disparate view of typical nurse technology use that proved difficult to compare.

Conclusion: To effectively advance the ways in which technology is used in nursing, it is essential to first establish a clear understanding of the current state of nurse technology use today. This foundational understanding aids in informing the design of future technologies, ensuring they are more user-friendly, safe, and efficient for nurse users. Ultimately, a comprehensive understanding of current practices will enable meaningful improvements in technology, benefiting not only nurses but also patients and healthcare organizations as a whole.

Keywords: Human-Computer Interaction, Nursing, Technology Use
Section: Applied Science/Engineering
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Exploration of Lived Experiences of Health Inequity among Older Immigrants

Mojbafan, A.[1], Moody, E.[2], Weeks, L.[3], McArthur, C.[4], & Gambold, L.[5]
[1] Faculty of Health, Dalhousie University, Halifax, NS
[2] School of Nursing, Dalhousie University, Halifax, NS
[3] School of Health Administration, Dalhousie University, Halifax, NS
[4] School of Physiotherapy, Dalhousie University, Halifax, NS
[5] Department of Sociology and Social Anthropology, Dalhousie University, Halifax, NS

Abstract

Introduction: Health inequities are avoidable and unjust differences in healthcare access, quality, and outcomes. In Canada, older immigrants face unique barriers, including language difficulties, cultural misalignment, and systemic discrimination, which hinder their access to healthcare.

Objective: This study explores the lived experiences of older immigrants in the Halifax Regional Municipality (HRM), focusing on their interactions with the healthcare system, challenges in accessing services, and their recommendations for improvement. Findings aim to inform policies and interventions that promote health equity and improve outcomes for this vulnerable population.

Methods: This qualitative phenomenological study will explore the experiences of older immigrants aged 65 and older residing in the Halifax Regional Municipality (HRM). A sample of 8 to 12 participants will be recruited using purposive and convenience sampling in collaboration with local community organizations. Eligibility criteria include having lived in Canada for over five years and experiencing ongoing health issues or chronic conditions. Data will be collected through two in-depth, semi-structured interviews, conducted in English or with the assistance of a translator, which could include a family member, if needed.

Anticipated Results: The study will reveal challenges such as language barriers, cultural misunderstandings, and systemic discrimination, which contribute to health inequities. These findings will help identify the factors perpetuating disparities and inform strategies for improving healthcare access.

Conclusion: This research will provide insights into the healthcare challenges faced by older immigrants and offer recommendations to improve access, strengthen community support, and reduce health inequities in Halifax, informing policies for a more equitable healthcare system.

Keywords: Lived Experiences, Older Immigrants, Health Inequity
Section: Health Inequity
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Exploring Factors Influencing Participation in Intergenerational Play in Nova Scotia, Canada

Macrae, C.[1] & Kirk, S.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: Physical activity (PA) is essential for overall health, yet recent trends show a significant decline in this behaviour. This has serious implications for public health, contributing to the development of non-communicable diseases and mental health challenges. Social isolation, a growing concern as we emerge from the COVID-19 pandemic, is also linked to low PA and increased mental health challenges. Intergenerational outdoor play (IGOP), where individuals from different age groups engage in PA together, presents a promising approach to both promote PA and enhance social connection.

Objective: This study aims to examine the factors influencing participation in IGOP sessions in Nova Scotia, Canada.

Methods: Data will be collected through surveys, assessing attendance, types of activities participated in, and self-reported levels of engagement and enjoyment. Interviews will explore personal experiences, motivations, and perceived benefits of IGOP. Descriptive statistics will be used to analyze participation trends, while reflexive thematic analysis of qualitative data will explore social, environmental, and personal factors influencing involvement.

Anticipated Results: The findings are expected to inform initiatives aimed at enhancing PA and fostering social connection across generations. By identifying barriers and facilitators, the study will contribute to the development of strategies for promoting intergenerational interaction, thereby improving public health outcomes, and strengthening community well-being.

Conclusion: Ultimately, this research seeks to enhance our understanding of how intergenerational outdoor play can support physical activity, mental health, and social connection.

Keywords: Exercise, Social Isolation, Outdoor Play
*Section***:** Population Health
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Does Frailty Moderate the Relation Between Muscle Strength and Knee Osteoarthritis Progression Phenotypes?

Rayner, S.[1], O'Brien, M.[2], & Moyer, R.[1]
[1] School of Physiotherapy, Faculty of Health, Dalhousie University, Halifax, NS
[2] Department of Medicine, Université de Sherbrooke, Sherbrooke, QC

Abstract

Introduction: Knee osteoarthritis (KOA) is a progressive, incurable disease characterized by pain, structural degradation, and impaired function. Treatment approaches are frequently challenged by disease complexity, specifically the discordance between reported symptoms (e.g., pain, loss of mobility and function) and structural (e.g., radiographic) joint changes. A patient may report pain, but not any structural issues based on imaging, or vice versa. This discordance highlights the need to identify predictors of symptomatic KOA to improve outcomes. Thigh muscle weakness and frailty are associated with KOA and disability. While muscle deficits are a known risk factor for KOA onset, the relation between muscle strength trajectories and KOA progression phenotypes (symptomatic/structural) remains unclear. Frailty, an index of accumulated health deficits, provides insights into aging and overall health. How frailty influences the relation between disease progression and muscle strength trajectories warrants exploration.

Objective: This study aims to examine the association between radiographic KOA and/or knee pain with muscle strength trajectories, using frailty as a moderator.

Methods: Data from the Osteoarthritis Initiative, a cohort of 4,796 adults, will be analyzed over six years. Participants' knees will be classified into four phenotypes: no KOA/pain, radiographic KOA only, pain only, and both. Knee strength will be assessed at baseline, 3, and 6 years. Frailty will be assessed at baseline. Regression models will evaluate these associations, adjusted for covariates and Frailty will be investigated as a moderator.

Anticipated Results: We hypothesize that painful KOA will be positively associated with muscle strength loss, and that this relation will strengthen with increased frailty.

Conclusion: This research could guide tailored interventions to maintain strength, prevent KOA onset, and minimize symptom severity by integrating frailty into KOA management strategies.

Keywords: Knee Osteoarthritis, Frailty, Muscle Weakness, Disease Progression
Section: Clinical Health
Presentation Format: Poster

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Empowering diverse youth voices to enhance equitable access to nature and wellbeing in Nova Scotia: a photovoice study

Cohen, A.[1], Feicht, B.[1], Stone, M.[1], Kwan, M.[1], & Truong, S.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax NS

Abstract

Introduction: Research shows that participating in nature-based activities promotes positive youth development and wellbeing; however, many youth face barriers to accessing nature, particularly those from low-income and racialized communities.
Objective: This research addresses the critical need for more inclusive and accessible nature-based opportunities by collaborating with youth to explore their experiences with nature.
Methods: This project uses photovoice methods, which empowers participants to document community issues and advocate for change through photography. For this project, we have partnered with Leave Out Violence NS (LOVE NS), a Black-led community organization dedicated to supporting underserved, queer, and racialized youth. Approximately 10 youth aged 16 to18 will be recruited to participate in a series of four sessions, including photography workshops and the resulting photographs will undergo a three-phase participatory analysis with the youth, which includes selecting photos, contextualizing, and codifying issues to identify themes that resonate with their lived experiences. Together, the photographic results and themes will be combined to create a final youth-led knowledge translation project.
Anticipated Results: This research offers potential for youth capacity building and community enrichment by engaging participants as co-researchers and advocates for local community issues. After the photovoice project, we will hold a knowledge mobilization event that will serve as the primary platform for youth to present their final project, facilitating dialogue with policymakers, stakeholders, educators, and youth workers across the province.
Conclusion: The results of this research will provide valuable youth perspectives to inform ways of enhancing access to nature-based services in Nova Scotia.

Keywords: Adolescent, Adolescent Health, Nature, Health Services Research, Photovoice
Section: Recreation and Leisure
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Limited Blood-Biomarker Overlap Between Frailty and Dementia: A Scoping Review

Hodgins, M.[1], Maxwell, S.[1], Howlett, S.[2], & Rockwood, K.[1]
[1] Division of Geriatric Medicine, Department of Medicine, Dalhousie University, Halifax, NS
[2] Department of Pharmacology, Dalhousie University, Halifax, NS

Abstract

Introduction: That frailty moderates the relationship between neuropathology and genetics, and their expression as dementia implies overlapping pathogenesis. Blood biomarkers, low-cost and readily available, provide insight into processes underlying frailty and impaired cognition. Our literature review examines the relationship between frailty and/or cognition with blood biomarkers.
Methods: We searched PubMed, Embase, and Scopus for articles containing the terms "frailty," "cognition," "blood biomarkers," and related terms. Two independent reviewers screened abstracts and full texts in Covidence, resolving disagreements through consensus. Included studies were 1) original, 2) pertaining to humans with neurodegenerative and/or cardiovascular disease, 3) examined at least one blood biomarker with frailty and cognition in the same model (e.g., cognition~biomarker+frailty).
Results: Twenty-five studies were included, with good geographical distribution. Most studies used the frailty phenotype to assess frailty (76%) and the Mini-Mental State Examination to assess cognition (84%). Analyses were varied. Only four studies stratified by sex. Many frailty studies only adjusted for cognition, and vice versa. Of 63 unique biomarkers identified, three (ADAM10, fibrinogen, and vitamin D) were significantly and independently associated with frailty and cognition. These biomarkers are implicated in altered proteostasis, inflammation and oxidative stress respectively.
Conclusion: The overlapping biomarkers suggests proteostasis, inflammation and oxidative stress might be common pathways of frailty and cognitive decline. Future research should include both frailty and cognitive measures and employ best practices for sex-based analysis. Doing so would further test evidence for the overlapping and distinct processes of frailty and cognitive decline.

Keywords: Biomarkers, Frailty, Cognition, Review
Section: Clinical Research
Presentation Format: Oral

HPJ
HEALTHY
POPULATIONS
JOURNAL

Abstract

Prevalence of Frailty in Long-term Care Residents in Relation to Cardiovascular Disease

Trumble, K.[1], McArthur, C.[1], & Kehler, S.[1]
[1] School of Physiotherapy, Dalhousie University, Halifax, NS

Abstract

Introduction: Frailty is highly prevalent in long-term care (LTC) settings. The burden of frailty is greater in people with cardiovascular disease (CVD), both of which contribute to poorer quality of life and increased mortality. Despite the known impact of frailty and CVD, their combined burden in LTC residents is not well characterized.

Objective: This study compares the prevalence and severity of frailty in LTC residents with and without CVD.

Methods: Using 2013-2018 data from the Resident Assessment Instrument-Minimum Dataset 2.0 (RAI-MDS 2.0), we calculated frailty scores using a 58-item Frailty Index (FI) that excluded CVD deficits. Scores range from 0-1; a higher score indicates a greater frailty level. The CVD variables were cardiac dysrhythmias, heart failure, stroke, transient ischemic attack, peripheral vascular disease, and atherosclerotic heart disease. FI scores were calculated as an average and in 0.1 increments to describe non-frail/very mildly frail (<0.2), mildly frail (0.2-0.3), moderately frail (0.3-0.4), severely frail (0.4-0.5), and very severely frail (>0.5).

Results: Among 138,343 eligible LTC residents (average age= 83.0± 10.8 years, 66.6% female), 73,869 (53.4%) had at least one CVD diagnosis. Average FI scores were: 0.46 (standard deviation [SD]: 0.10), with frailty levels distributed as follows: <0.20 (0.4%), 0.20–0.30 (3.5%), 0.30–0.40 (16.9%), 0.40–0.50 (44.7%), and >0.50 (34.5%). Residents with CVD had a greater FI (0.48 ± 0.10) than those without CVD (0.45 ± 0.10). For peak frailty levels <0.20, 0.20–0.30, 0.30–0.40, 0.40–0.50, and >0.50, the proportion of residents with CVD versus without CVD was 27.6% vs. 72.4%, 38.1% vs. 61.9%, 44.6% vs. 55.4%, 51.6% vs. 48.4%, and 61.9% vs. 38.1%, respectively.

Conclusion: LTC residents with CVD were more likely to be very severely frail compared those without CVD. These findings highlight the need to understand the relationship between frailty, CVD burden, and the risk of adverse health outcomes.

Keywords: Frailty, Cardiovascular Disease, Long-term Care
Section: Population Health
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Health and economic impacts of environmental pollution caused by nickel mining activities on children living in Sudbury

Mukerjee, R.[1]
[1] Global Health Program, Faculty of Health Sciences, McMaster University

Abstract

Introduction: Sudbury in Ontario has been Canada's primary hub for nickel production for 100+ years and contributes nearly 40% of the country's nickel mining. The net zero transition has increased the demand for metals such as nickel that are an important raw material in the manufacture of batteries used in electric vehicles. The damaging health and environmental impacts of metal mining has been well documented. However, despite the well-established disproportionately high vulnerability of children to the negative effects of environmental contamination, there is no data available on this important domain of public health in Sudbury. **Methods**: The proposed research is an exploratory sequential mixed methods study that will examine the respiratory and cardiovascular health impacts of environmental pollution from nickel mining on children living in Sudbury, Ontario; and will evaluate the economic cost of healthcare utilization borne by the public health department of Greater Sudbury towards treatment of these illnesses that may be attributable to environmental pollution. Data will be collected and analyzed for the period of 2018 to 2023. The study comprises two phases: a quantitative cross-sectional phase and a qualitative case study phase. The target populations include children aged 0 to 17 years who have resided in Sudbury for at least one year; and their parents or primary caregivers. **Anticipated Results**: The study will highlight the economic burden of respiratory and cardiovascular illnesses among children; assess the prevalence and severity of respiratory and cardiovascular health issues among the target population; and finally, investigate potential disparities in respiratory and cardiovascular health impacts and healthcare utilization among different socioeconomic groups in Sudbury.

Conclusion: Contribute towards filling a key data gap in Sudbury, and potentially inform public health strategies in the domain of pediatric environmental health.

Keywords: Environmental Pollution, Pediatric Respiratory and Cardiovascular Health, Environmental Justice
Section: Population Health
Presentation Format: Oral

HPJ
HEALTHY
POPULATIONS
JOURNAL

Abstract

The Inclusion of Participants with Coiled and Curly Hair in Neuroscience: Clean Data and EEG Signal Equivalency

Gomes Nobre, A.J.[1]
[1] Mount Saint Vincent University, Halifax, NS

Abstract

Introduction: The lack of research inclusion of Black, Indigenous and People of Colour has an extensive problematic history, and alternative strategies to successfully include marginalized communities in neuroscience research has recently started to be explored.

Objective: This study tests the use of an alternative method of EEG data collection, Sevo clips, which is better suited than the traditional EEG cap to collect data from participants with thicker and curlier hair.

Methods: Small sample of Nova Scotian residents (N = 14) was tested. Half of the participants used the Sevo clips and the other half used the EEG cap. Both groups answered a battery of questionnaires and performed a Flanker task followed by a rest task. It was first hypothesized that there would be no difference in ERP amplitudes between the Sevo clips and the EEG cap. The second hypothesis was that event-related negativity (ERN) and correct-related negativity (CRN) differences would be present regardless of application type. EEGlab, a plug-in for MATLAB, was used for the 2×2 mixed design ANOVA.

Results: There was no difference in ERP amplitude, which indicates that Sevo clips are suitable to use for EEG data collection. The ERN - CRN differences were in the correct direction for both groups which shows potential suitability for the Sevo clips to be used to look at both ERN and ERN - CRN differences.

Conclusion: By exploring the current problems in neuroscience research, this study fights against systemic racism in neuroscience research and adds to the current knowledge base on this topic.

Keywords: Sevo Clip, EEG Research, Racial Prejudice, Racial Minorities, Neuroscience
*Section***:** Health Inequity
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Rethinking nature connections in early childhood outdoor play pedagogy

Ashley, R.[1]
[1] Faculty of Education, Mount Saint Vincent University, Halifax, NS

Abstract

Introduction: Outdoor play in nature contributes to children's overall health and well-being, though pedagogical perspectives of nature are often dominated by Eurocentric-stewardship approaches. Learning environments that are responsive to children's culture and context support a sense of belonging and well-being. Guidance of children's meaningful nature relationships within framework documents in the Nova Scotia (NS) early learning and child care (ELCC) setting is not yet explored in-depth.

Objective: This master's thesis analyzes early learning curriculum frameworks in NS and Aotearoa New Zealand (ANZ) on their constructions of child-nature relationships.

Methods: The student researcher's ELCC experience is an analytical tool, theoretically informed by ecological systems model and a common worlds lens. A comparative reflexive thematic analysis was used on two framework documents (NS and ANZ) to explore how they guide educators in support children's nature relationships in outdoor play.

Results: Findings identify common stewardship approaches between frameworks, with differing motivations for guiding children's nature engagement. NS views land as a resource for children's playful learning, placing value on nature due to educational and health benefits. ANZ views Māori cultural values of belonging with land through social and emotional connections, extending beyond notions of environmental stewardship towards reciprocity.

Conclusion: ELCC communities and leadership in NS are urged to interrogate Eurocentric perspectives of child-nature relationships and move beyond stewardship practices towards culturally and environmentally inclusive approaches to outdoor play. Understanding the pedagogical guidance related to child-nature relationships may enhance the collective health and well-being of nature, children and educators by identifying the supports needed to strengthen children's culturally relevant nature-connection experiences during outdoor play.

Keywords: Child Well-Being, Nature Connection, Early Learning Curriculum Framework, Outdoor Play, Early Childhood Education
*Section***:** Population Health
Presentation Format: Poster

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Investigating Narrative in Family Health Communication about Genetic Aortopathy: A Proposed Study

Brown, M.[1,2], Pickard, M.[2], Potts, G.[2], Belliveau, D.[2], Horne, G.[2], & Stewart, I.[1]
[1] University of King's College, Halifax, NS
[2] Dalhousie University, Halifax, NS

Abstract

Introduction: Genetically-triggered aortopathies (GTA) are a major cause of aortic aneurysm/dissection. They can be non-syndromic (ns-TAAD) and silent until they are fatal. Because they often lack clear symptoms and identifiable genes, increasing evidence (including results presented) recommends diagnosis, monitoring, and risk assessment through family history-taking and imaging-based, patient-initiated family screening, the success of which depends on family communication about health. Investigating means of increasing participation in family screening is essential to improving the success of GTA diagnostics and treatment.

Methods: Quantitative data comparing relative benefits of cascade screening and genetic testing was obtained through a retrospective cohort study of charts at the Maritime Connective Tissue Centre (CTC). A qualitative proposed follow-up study will involve semi-structured interviews with CTC patients with GTA who have been asked to initiate family screening, and thematic analysis to identify barriers and facilitators of screening participation.

Results: Quantitative study findings indicate that only 38% of CTC probands successfully referred family members to participate in family screening, of whom ~30% presented with GTA. A family member was 9x more likely to be found at risk by imaging, compared to genetic testing. Anticipated results of qualitative study include perceived closeness with relatives and positive family health narratives (e.g. of resilience) as predictors of success, and family tensions and negative narratives (e.g. fatalistic) as potential barriers.

Conclusion: Investigating narrative in family health communication through collaborating with families to identify positive predictors in participating families (and barriers in the 62% of non-participating families) is key to improving the success of family screening, and thereby the inclusivity and overall success of GTA diagnostics and treatment.

Keywords: Genetic Aortopathy, Family Health Communication, Cascade Screening, Thoracic Aortic Aneurysm and Dissection, Health Narratives
*Section***:** Clinical Research
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Periodontal Disease and Cognitive Impairment: A Systematic Review

Johnson, J.[1], Verma, I.[2], Wang, Y.[3], McKibbon, S.[4], D'Souza, V.[3,4,5,6,7,8]
[1] Department of Psychology and Neuroscience, Dalhousie University, Halifax, NS
[2] Global Health, Faculty of Health Science, McMaster University, Hamilton, ON
[3] Faculty of Dentistry, Dalhousie University, Halifax, NS
[4] Department of Surgery, Dalhousie University, Halifax, NS
[5] Department of Community Health and Epidemiology, Dalhousie University, Halifax, NS
[6] Nova Scotia Health Authority, Halifax, NS
[7] Healthy Population Institute, Dalhousie University, Halifax, NS
[8] Beatrice Hunter Cancer Research Institute, Halifax, NS

Abstract

Introduction: Dementia is an acquired severe cognitive impairment that interferes with social and occupational functioning. It is a significant cause of increased disability among older adults, with the number of people affected expected to triple by 2050. Therefore, identifying and managing the key risk factors for dementia may help reduce the burden associated with the condition. Periodontal disease, the second most common oral disease and a major cause of tooth loss has been linked to cognitive impairment. However, the biological mechanisms underlying this association remain unclear. This systematic review examines whether periodontal disease increases the risk of cognitive impairment in adults."

Methods: In communication with the liaison librarian, we systematically searched the electronic databases EBSCO, Embase, CINHAL, EMBASE, PsycINFO, and PubMed and identified articles published in English from January 2000 to June 2024. All identified articles were imported to Covidence and systematically screened by four reviewers to determine their eligibility for inclusion. Studies that investigated the causal relationship between periodontal disease (exposure) and cognitive impairment (outcome) in humans and had at least 50 participants ≥50 years were included. Data were extracted from the potentially eligible studies.

Results: Of the 2183 identified articles, 25 met the inclusion criteria, pending quality assessment. All were population-based longitudinal studies: seventeen prospective and eight retrospective cohort studies. Fifteen were conducted in Asia, six in the United States of America, and four in Europe. Most (92%) studies found evidence to support that periodontal disease increases the risk for cognitive impairment in older adults.

Conclusion: Poor periodontal health appears to increase the risk of cognitive decline. Improving access to dental care services and preventing and managing periodontal disease may help manage the dementia-related burden.

Keywords: Cognitive Decline, Periodontitis, Tooth Decay
Section: Population Health
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Breaking Play Boundaries & Redefining Play Spaces: Outdoor Loose Parts & Inclusive Play in Before and After Schools

Bautista, L.[1], Locke, M.[1], So, S.[1], Stone, M.[1], & Feicht, R.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: Play is essential for healthy child development. Unstructured play, including outdoor loose parts play (OLPP) allows child-led engagement and is associated with a variety of physical health benefits. While the importance of inclusive play spaces is widely recognized, the role of OLPP in facilitating inclusion and belonging in play is not well understood.

Objective: The purpose of this study is to examine the extent to which an OLPP intervention impacted inclusion in before- and after-school settings, through the perspective of program staff and caregivers.

Methods: This study was conducted as part of the Physical Literacy in the Early Years (PLEY) School intervention. This study analysed data from focus groups with staff and interviews with parents/caregivers, from three intervention sites, using an interpretive approach to reflexive thematic analysis.

Results: Three themes were developed: (1) Autonomy in Action – Playing Your Own Way with Loose Parts, (2) Endless Exploration – Limitless Possibilities with Loose Parts, and (3) Creating Community – Loose Parts Promote a Sense of Belonging. Themes illustrate examples of how OLPP is associated with challenging common play boundaries, and providing diverse play opportunities for everyone.

Conclusion: This study contributes to a gap in existing evidence around the social benefits of OLPP. The findings offer a starting point for future research to more specifically examine inclusion and belonging in the context of OLPP and may be of interest to practitioners and decision makers in education and programming related to healthy child development.

Keywords: Play, Loose Parts, Child, Social Behaviour, Inclusion
Section: Health Inequity
Presentation Format: Oral

HEALTHY POPULATIONS JOURNAL

Abstract

Quantifying the Relationship between Muscle Capacity Utilization and Pain in Unilateral Knee Osteoarthritis

Collins, R.[1], Halliwell, C.[2], Budarick, A.[2], & Moyer, R.[2]
[1] Faculty of Science, Dalhousie University, Halifax, NS
[2] School of Physiotherapy, Dalhousie University, Halifax, NS

Abstract

Introduction: Mobility-related disease, such as knee osteoarthritis, is commonly associated with increased pain, abnormal joint loading, and decreased muscle function. The mechanisms linking muscle weakness to impaired physical function may be explained by quantifying muscle capacity utilization, a measure that reflects the ability to use muscle strength to complete physical activities. It is hypothesized that knee osteoarthritis related pain alters motor control to adapt walking mechanics and reduce joint loading. However, how pain-induced effects on muscle capacity utilization are controlled within an individual and how muscle capacity utilization responds to continuous walking is unclear.

Objective: The proposed project will quantify the association between muscle capacity utilization and knee pain during walking and determine the responsiveness of muscle capacity utilization following a physical activity intervention.

Methods: Forty participants (asymptomatic, n=20 and unilateral knee osteoarthritis-related pain, n=20) will undergo gait biomechanics before and after a 30-minute continuous treadmill walk. Quadriceps strength will be assessed using an isokinetic dynamometer. Clinical measures of physical function will be collected using patient-reported questionnaires. Bilateral muscle capacity utilization will be calculated from biomechanical and strength data.

Anticipated Results: We anticipate that muscle capacity utilization will be consistent between limbs and similarly responsive after the intervention in asymptomatic individuals. Muscle capacity utilization will be higher and more responsive in the symptomatic versus asymptomatic limb of individuals with knee osteoarthritis but both limbs will have higher utilization and be more responsive compared to either limb in asymptomatic participants.

Conclusion: Quantifying and clarifying this relationship may have implications for tailored rehabilitation and pain management strategies.

Keywords: Knee Osteoarthritis, Joint Pain, Quadriceps Muscle
*Section***:** Kinesiology
Presentation Format: Poster

HEALTHY POPULATIONS JOURNAL

Abstract

Examining the Relation Between Functional Performance Measures and Osteoarthritis Outcomes by Varying Frailty Levels

Waghorn, J.[1], Halliwell, C.[2], Rayner, S.E.[2], MacLean, K.[1], Moyer, R.[2], & O'Brien, M.W.[1]

[1] School of Health and Human Performance, Dalhousie University, Halifax, NS
[2] School of Physiotherapy, Dalhousie University, Halifax, NS
[3] Department of Medicine, Université de Sherbrooke, Sherbrooke, QC

Abstract

Introduction: Osteoarthritis is a prevalent degenerative joint disorder affecting most of the aging population. Both physical function and frailty are more prevalent in the osteoarthritic population and are predictive of poor health outcomes.

Objective: This project will: 1) determine the relationship between lower-limb physical function performance and lower-limb osteoarthritis incidence, and related outcomes (Knee Injury and Osteoarthritis Outcome Score (KOOS), falls, surgical intervention). 2) Determine the moderation effect of frailty in this relation between lower-limb physical function performance and osteoarthritis incidence and outcomes. It is hypothesized that poor physical function will result in poor osteoarthritis-related outcomes, and stronger relations will be observed among the higher frailty groups.

Methods: To address objective 1, regression analyses will be conducted using the 20-m walk test and 5x chair stand test, and osteoarthritis incidence, KOOS, falls, and surgical intervention from the Osteoarthritis Initiative. For objective 2, baseline frailty index will be calculated for all participants, and moderation analyses will be completed for each model from objective 1.

Anticipated Results: It is anticipated that slower walking speed and chair stand pace will be associated with greater incidence of osteoarthritis, poor KOOS scores, increased rate of falling, and decreased time to requiring surgical intervention. It is also anticipated that frailty will moderate this relation whereby baseline higher frailty levels will lead to stronger relations in the models relating physical function to osteoarthritis-related outcomes.

Conclusion: This study will clarify the complex interactions between physical function, frailty, and osteoarthritis, providing insight into their combined effects on health outcomes. Findings may provide insight into whether those who are sick get sicker, and inform future prevention, and treatment strategies to promote healthy aging.

Keywords: Osteoarthritis, Frailty, Physical Function, Aging
Section: Population Health
Presentation: Poster

HEALTHY POPULATIONS JOURNAL

Abstract

The Relation Between Muscle Capacity Utilization and Physical Function in Patients with Unilateral Knee Osteoarthritis

Hannigan, M.[1], Halliwell, C.[1], Budarick, A.[1], & Moyer, R.[1]
[1] School of Physiotherapy, Dalhousie University, Halifax, NS

Abstract

Introduction: Knee osteoarthritis (KOA) is a leading cause of disability worldwide, associated with muscle weakness, pain, and functional limitations. Muscle Capacity Utilization (MCU) aims to quantify function through relating muscle exertion during walking to total strength,4,5 but its relationship to patient-reported measures of physical function, such as the Knee Osteoarthritis Outcome Score (KOOS), is poorly defined.

Objective: The purpose of this study was to quantify the relation between MCU and physical function.

Methods: Individuals with unilateral clinical KOA (n=44) were recruited from physicians and the community. MCU was calculated bilaterally as the ratio between the peak knee flexion moment during walking, and peak knee extensor strength. Physical function was collected using the KOOS subdomains for pain, symptoms, activities of daily living, sport and recreation, and quality of life, and gait speed as a performance-based measure. Dependent t-tests compared MCU between limbs. Pearson correlations (r) quantified the relation between MCU (affected limb) with each KOOS subdomain, the KOOS5 (average score) and gait speed.

Results: MCU was not significantly different between limbs (p=0.38). Moderate correlations were observed for MCU with KOOS Sport and Recreation (r=0.42), and with gait speed (r=0.53). All other KOOS categories, including the total KOOS5 score, weakly correlated with MCU (r=0.24-0.35).

Conclusion: The relation between KOOS Sport and Recreation with MCU suggests that MCU may be more strongly correlated with perceived high-level function loss (e.g. sport participation) in individuals with KOA than with their perception of their capacity to complete everyday tasks. However, MCU correlations with reduced gait speed suggest that everyday function is also impacted, though less severely reported, as symptoms remain manageable. Future studies should examine age and sex impacts on function, with larger sample sizes.

Keywords: Osteoarthritis, Knee, Walking Speed, Patient Reported Outcome Measures, Muscle Capacity Utilization
*Section***:** Clinical Research
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Who Needs to Run? The Brain's Response to Acute Aerobic Exercise Differs Between Individuals

Murphy, A.[1], Gibson, J.[1], & Boe, S.[1]
[1] School of Physiotherapy, Dalhousie University, Halifax, NS

Abstract

Introduction: Aerobic exercise has been established to benefit overall health; however, recent research has also highlighted its positive effects on the brain. Specifically, studies have demonstrated acute bouts of moderate- to high-intensity aerobic exercise increase brain excitability, a precursor key to long-term neuroplasticity and, therefore, learning. The mechanism that drives this neurophysiological response to aerobic exercise remains elusive, however. While overall trends in study data support an effect of aerobic exercise on the brain, there appears to be considerable unexplained variability in individual participant responses. Here we examined this variability by characterizing the individual responses of participants to a single bout of aerobic exercise.

Methods: Data from four studies (N=92) were obtained for retrospective analysis of individual participants. Briefly, each study assessed the effect of aerobic exercise on corticospinal excitability using non-invasive brain stimulation. Excitability was measured before and after the exercise intervention. To standardize across studies, the change from pre-post exercise in motor evoked potential (MEP) amplitude at 120% of stimulator output was examined at the participant level. Participant data including heart rate and peak power output were also examined as factors in the analysis.

Results: A positive change in MEP amplitude pre-post exercise was demonstrated in 69 of 113 sessions. This will be investigated further in the context of other factors including exercise intensity at the individual level.

Conclusion: While significant effects have been found at the group level in each respective study, there appears to be variability at the individual level. Knowledge as to how individuals vary in their neurophysiological responses may reveal factors through which aerobic exercise drives increased excitability, which is critical in the application of excitability to rehabilitative interventions.

Keywords: Aerobic Exercise, Corticospinal Excitability, Transcranial Magnetic Stimulation, Neuronal Plasticity, Neurophysiology
Section: Kinesiology
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Viral Infection Enhances Autoantibody Production in an Induced Model of Systemic Lupus Erythematosus (SLE)

Sokyrka, R.[1]
[1] Microbiology and Immunology, McGill University, Montreal, QC

Abstract

Introduction: Systemic lupus erythematosus is an autoimmune disorder characterized by the generation of autoantibodies (autoAbs) to numerous nuclear and intracellular antigens. SLE likely results from a combination of environmental factors and genetic predisposition, although much of the etiology of SLE remains unknown. Viral infection has been associated with exacerbation of disease, but there is little known about whether virus alone can induce SLE. Viral infection results in high levels of type I interferons (IFN-I), which are also characteristic of SLE and associated with disease initiation and severity. We hypothesized that viral infection can affect the initiation and progression of SLE.
Methods: We investigated whether infection of mice with lymphocytic choriomeningitis virus Armstrong (LCMV-Arm) impacts the production of autoantibodies in a model of SLE induced by immunization with β2-glycoprotein I and lipopolysaccharide.
Results: We found that infection with LCMV-Arm 6 days following the induction of SLE resulted in a sustained increase in hallmark SLE autoantibodies (including anti-DNA, anti-Ro, anti-La, and anti-Sm), compared to uninfected mice. The contribution of IFN-I in this model was investigated by performing similar experiments in IFN-I receptor-deficient (IFNAR1-/-) mice. Surprisingly, IFNAR1-/- mice infected with LCMV-Arm also showed enhancement of autoantibody production.
Conclusion: These findings suggest that LCMV-Arm infection may affect autoantibody production through mechanisms that are not limited to IFN-I signaling. Identifying how viral infection impacts the initiation and development of SLE will provide insight into the immune mechanisms contributing to disease onset and progression, potentially providing new therapeutic approaches for treating SLE.

Keywords: Systemic Lupus Erythematosus, Autoimmunity, Lymphocytic Choriomeningitis Virus Armstrong (LCMV-Arm)
Section: Clinical Research
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Impacts of a Physical Activity Program on Cognition and Physical Activity Outcomes in People with Acquired Brain Injury

Inkpen, S.[1], Miller, K.[2], Pellerine, L.[1], & O'Brien, M.[3]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS
[2] Nova Scotia Health, Halifax, NS
[3] Department of Medicine, Universite de Sherbrooke, Sherbrooke, QC

Abstract

Introduction: Acquired brain injuries (ABI) represent injuries to the head that are sustained after birth. ABIs are a leading cause of death and disability in Canada. While acute care options exist, resources for patients in the sub-acute phase of rehabilitation are limited. This study evaluates an 8-week physiotherapist led lifestyle intervention for people with ABI in the sub-acute phase of recovery. It was hypothesized that the program would improve physical activity outcomes (physical activity level, sedentary time, and step count) when compared to waitlisted control participants.
Methods: Participants completed an 8-week program including 11 group sessions designed to learn about physical activity. This study aimed to recruit 60 participants (30 controls). Physical activity, step count and sedentary time were measured using activPAL inclinometers.
Results: This preliminary sample included 9 program participants (7 female), age 53 (13.1), BMI 34 (13.6), and 10 control participants (9 female), age 51.3 (10.7), BMI 33.9 (7.4). A linear mixed effects model characterized the effect of the program and group on physical activity and cognition. In this preliminary sample, no significant changes to physical activity outcomes following the 8-week program were observed (all, $p > 0.051$).
Conclusion: As part of a larger project, these preliminary results provide insight into trends as data collection continues. By collaborating with an existing centre for clinical care, the findings of our study may be immediately integrated to improve delivery of Nova Scotia healthcare services for patients with ABI.

Keywords: Rehabilitation, Executive Function, Physical exercise, Accelerometry
Section: Clinical Research
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Frailty levels among people tested for COVID-19

van der Valk, A.[1], Theou, O.[2], & Rockwood, K.[1]
[1] Geriatric Medicine, Nova Scotia Health & Dalhousie University, Halifax, NS
[2] School of Physiotherapy, Dalhousie University, Halifax, NS

Abstract

Introduction: COVID-19 is more likely to impact people who are frail. We assess the degree of frailty of people tested for COVID-19, utilizing the Clinical Frailty Scale (CFS) and frailty index (FI). We also explore how CFS scores assigned using clinical judgment align with scores assigned using an algorithm.

Methods: From 2020/06/08 - 2021/06/17, N=876 adults (ages 18-95; M = 42.1 [SD 18.3]; 58.7% female) who presented to one of three Primary Assessment Centres in Halifax for COVID-19 screening participated. They answered a questionnaire on current and historical health factors. Responses were used to (a) construct a 60-item FI and (b) derive a CFS score (using the algorithm). Trained staff assigned each participant an FI and CFS score; if the staff disagreed with the algorithmic score, they provided an alternative score. COVID-19 test swab results were extracted from medical records.

Results: Our sample was young (60% <45 years old) and most COVID-free (n = 9 tested positive). Final CFS scores were distributed as follows: 1 (Very fit)–21%, 2 (Fit)–40.5%, 3 (Managing well)–27.1%, 4 (Very mild frailty)–9.2%, 5 (Mildly frail)–1.5%, 6 (Moderately frail)–0.7%. No one was severely frail or terminally ill (CFS 7-9). Frailty generally increased with age, and the CFS and FI scores were positively correlated (Spearman's rho=0.520, p <.001). Women were more often very mildly to moderately frail (12.3% vs 10.2% for men), and were slightly frailer than men, MFIFemale = 0.06 [0.06], MFIMale = 0.05 [0.05], p = 0.014. Staff generally agreed with the CFS score assigned by the algorithm (89.7% agreed completely, 9.2% disagreed by 1 level, 1% by 2+ levels). **Conclusion**: Participants tested for COVID-19 were generally young and fit. Very few tested positive for COVID-19. While CFS and FI are typically used to assess frailty in older adults (e.g. age 60+), they correlate well in this younger sample, and clinical judgment versus algorithmic assessment are strongly aligned.

Keywords: Clinical Frailty Scale, Frailty Index, COVID-19
Section: Clinical Research
Presentation Format: Poster

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Representations of Track 2 MAiD in Canadian News Media

Turkovich, N.[1]
[1] Department of Sociology & Anthropology, University of Guelph, Guelph, ON

Abstract

Introduction: Canada's Medical Assistance in Dying (MAiD) policy is the subject of continued controversy among scholars and practitioners for its lack of sensitivity toward the lives of those living with illnesses and disabilities.

Objective: This study uses a sociological lens to explore how Track 2 MAiD is represented in mainstream Canadian news media and what those representations suggest about its use.

Methods: This ongoing project employs a thematic analysis of news articles from Canadian news media outlets between 2021 and 2024, all pertaining to MAiD Track 2.

Anticipated Results: Preliminary analysis suggests that representations of Track 2 MAiD are primarily negative, with concerns over the coercive nature of healthcare inadequacy and inaccessibility, economic inequality, and social stigma in end-of-life decision making. Yet, these representations are also contrasted by positive experiences with MAiD as a necessary healthcare treatment option that offers autonomy and dignity at the end of one's life.

Conclusion: As the future of MAiD remains uncertain, with an ongoing 2024 Ontario Superior Court case challenging the constitutionality of Track 2, this research aims to explore how Track 2 is viewed and interacted with by mainstream Canadian news media outlets and the public. Accordingly, the study seeks to offer novel insights into media perceptions of Track 2 and make a contribution to the sociological and medical literature on the topic.

Keywords: Medical Assistance in Dying, Euthanasia, Sociology of Health
*Section***:** Health Policy/Law
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Improving exercise prescription and adherence for chronic low back pain management: an implementation research proposal

Silva, S.[1], Ogilvie, R.[1], & Hayden, J.[1]
[1] Department of Community Health and Epidemiology, Dalhousie University, Halifax, NS

Abstract

Introduction: Chronic low back pain (CLBP) is the main cause of disability globally. Staying physically active and engaging in exercise programs are the primary management strategies recommended for managing CLBP. However, implementing these complex strategies in real-world contexts can be challenging. This will be a 2-phase project. In Phase 1, I will identify: 1) providers' barriers and facilitators to prescribing exercise to patients with CLBP; and 2) patients' barriers and facilitators to adhering to exercise programs and staying physically active. In Phase 2, I will 1) develop and test the implementation of a tool to support providers in prescribing exercise to patients with CLBP and support individuals with CLBP in adhering to exercise programs and staying physically active.

Methods: In Phase 1, I will conduct a qualitative study following the interpretive description methodology. I will conduct semi-structured interviews with exercise treatment prescribers (e.g., physiotherapists, chiropractors, and general practitioners) and individuals living with CLBP. Coding will be done in duplicate, using inductive and deductive approaches. In Phase 2, I will use iterative co-creation cycles with healthcare knowledge user partners, participants from Phase 1, and computer scientist partners to develop a multi-component tool designed to overcome modifiable barriers identified in Phase 1. The tool will contain a knowledge base with data from a large systematic review on exercise for CLBP. I will conduct a pre-post intervention study to assess the feasibility of implementing the tool in primary care settings and the tool's effectiveness in improving CLBP-related outcomes and exercise adherence.

Results: N/A

Conclusion: This project will support healthcare providers in delivering greater patient-centered care and might improve patient empowerment by enabling greater patient participation in the decision-making process and supporting self-management strategies.

Keywords: Chronic Pain, Physical Activity, Implementation Science
Section: Clinical Research
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Prostate Cancer Screening Patterns Across Demographics and Behaviours in Three Canadian Provinces: A Population Study

Upshaw, T.[1] & Weerasinghe, S.[1]
[1] Department of Medicine, Dalhousie University, Halifax, NS

Abstract

Introduction: Prostate-specific antigen (PSA) screening is widely used for detecting prostate cancer in Canada, though its effectiveness is debated. Limited research examines the influence of socio-demographic and behavioural factors on screening decisions. This study builds on and differs from Tchir et al. (2020) by analysing PSA screening patterns across three provinces; Nova Scotia, Newfoundland, and British Columbia, and incorporating broader socio-demographic and cultural variables.

Objective: This study investigates PSA screening prevalence and predictors, focusing on socio-demographic, behavioural, and cultural factors to better understand screening patterns.

Methods: Data were drawn from two cycles of the Canadian Community Health Survey (CCHS) public microdata files (2015/2016 and 2017/2018), including 17,427 men. Logistic regression models assessed socio-demographic (age, marital status, occupation, cultural background) and behavioural (physical activity, smoking, family history) predictors of PSA screening.

Results: Screening rates differed by province: Newfoundland (27.8%), Nova Scotia (24.5%), and British Columbia (22.1%). Key predictors included DRE history (Nova Scotia OR = 9.1, British Columbia OR = 12.58, Newfoundland OR = 9.64) and age over 50 (Nova Scotia OR = 9.63, British Columbia OR = 8.97, Newfoundland OR = 10.69). Marital status influenced screening, with married/common-law individuals more likely to be screened. Occupation and cultural background were significant only in British Columbia.

Conclusion: This study identifies significant regional variations and socio-demographic factors influencing PSA screening. Tailored public health strategies are essential to address disparities and improve screening practices.

Keywords: Urology, Screening, Medicine
Section: Population Health
Presentation Format: Poster

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Motor Planning of Grasping Movements Under Target Uncertainty

Lacroix, A.[1] & LeBlanc, K.[1]
[1] Department of Psychology and Neuroscience, Dalhousie University, Halifax, NS

Abstract

Introduction: Before moving to grasp an object, the nervous system forms a plan of action to optimize performance success by preshaping the hand to match the size of the target object. However, little is known about how grasping movements are planned when faced with multiple target options, also known as target uncertainty.

Objective: This study examines if the nervous system plans for multiple grasping movements in parallel by analyzing whether the shaping of the hand aperture when grasping for an object is affected by the nontarget object in a way that would optimize action control under target uncertainty.

Methods: Using 3D motion capture, grip aperture was measured in a rapid movement task known as Go-Before-You-Know (G-B-Y-K), where participants were presented with multiple target options and forced to initiate their movement before knowing which is the target.

Results: Participants' peak grip aperture was larger when the nontarget object was larger than the target object within the G-B-Y-K condition relative to the know-before-you-go (K-B-Y-G) condition where the target is revealed prior to movement onset. However, peak grip aperture was not smaller when the nontarget object was smaller than the target object within the G-B-Y-K condition relative to the K-B-Y-G condition.

Conclusion: When the nervous system plans for multiple grasping movements in parallel during target uncertainty, the nontarget object only influences peak grip aperture when it is larger than the target. The results of this experiment help clarify how the nervous system plans for multiple potential grasping actions when planned under different contexts. Given that disorders of movement control impair independent functioning it is extremely beneficial to get a better understanding on how movements are represented in the brain.

Keywords: Grasping Movements, Motor Control, Uncertainty, Decision Making
Section: Kinesiology
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Internalised Homophobia: impacts on health and how social bonds influence probability among men who have sex with men

Lenarduzzi, A.[1]

[1] Guelph Institute of Development Studies/Department of Sociology and Anthropology, University of Guelph, Guelph, ON

Abstract

Introduction: Confidence or pride in one's identity is a complex feeling among many sexual orientation and gender identity (SOGI) minority groups. For many, pride is a rejection of the static belief systems that they were raised with; for some, their identity may still be tied to feelings of shame, guilt, and discomfort. A practical application of the minority stress model, this study emphasises the risks associated with internalised homophobia, such as negative health outcomes and compulsive sexual behaviours.

Methods: This study uses binary logistic regression with data from "Generations: A Study of the Life and Health of LGB People in a Changing Society, United States, 2016-2019" to investigate the links between feelings of internalised homophobia, age cohort, and perceived social support. This study investigates the significant impact that perceived social support from family, friends, and (a) significant other(s) have on the likelihood of an MSM individual reporting feelings of internalised homophobia.

Results: Utilising logistic regression models and estimation, each interaction between age cohort and the social support sub scales reported statistical significance ($p<.05$; $p<.01$; & $p<0.05$ respectively) in the model when controlling for demographic and theoretically associated variables. While some age cohorts were correlated positively to higher levels of social support with less likelihood of reporting feelings of internalised homophobia, others experienced higher likelihoods of reporting feelings of internalised homophobia at higher levels of social support.

Conclusion: In recognizing the lack of literature giving depth to how internalised homophobia or homonegativity is sustained among MSM, this study contributes to the need for further intersectional research on internalised homophobia and both the physical and social determinants of health for MSM. Further research should also investigate the incidental findings of lowered PrEP usage and possible impacts.

Keywords: Sexual and Gender Minorities, Homosexuality, Male, Social Determinants of Health
Section: Population Health
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

2SLGBTQIA+ Healthcare Teaching in the Maritimes: An Investigation into Medical Students' Preparedness for Practice

Stadler, J.[1], Léger, C.[1], Doucet, C.[1], Savoie, J., Doiron, T.[1], Comeau, D.[2], & Bouhamdani, N.[2]
[1] Centre de formation médicale du Nouveau-Brunswick, Sherbrooke, NB
[2] Vitalité Health Network, Dr Georges-L.-Dumont University Hospital Center, Moncton, NB

Abstract

Introduction: Individuals belonging to sexual and gender minorities (2SLGBTQIA+) often have worse health outcomes and more difficulty accessing equitable healthcare. These disparities may partially be due to a lack of 2SLGBTQIA+-centric education during clinicians' predoctoral studies.
Objective: This cross-sectional survey-based study evaluates medical students' perceived comfort levels and preparedness for practice. Specific objectives are to (1) determine student's self-reported comfort level in caring for 2SLGBTQIA+ patients, (2) evaluate students' attitude, knowledge, and current competency (preparedness) in caring for 2SLGBTQIA+ patients, and (3) explore potential gaps in students' training in preparation for providing medical care to the 2SLGBTQIA+ population.
Methods: This study is a cross-sectional questionnaire-based survey that will target all students enrolled in a medical program in the Maritimes (Centre de Formation Médicale du Nouveau-Brunswick, Dalhousie Medicine New Brunswick, and Dalhousie Medicine Halifax Campus). Students have been contacted by email and invited to complete the confidential web-based survey which includes (1) participant demographics; (2) self-reported comfort level assessment; and (3) clinical skill assessment (LGBT-DOCSS). Surveys were supplemented with de novo items specific to Two-spirit and asexual patients to better reflect the Canadian population.
Results: 35% of student's report having received inadequate clinical training and supervision to work with Lesbian, gay, bisexual and asexual patients. This increased to 70% for transgender patients and 75% for two-spirit patients.
Conclusion: This work serves as a springboard for future research exploring interventions that may ameliorate 2SLGBTQIA+ curricula by highlighting that most students perceive having received inadequate training.

Keywords: 2SLGBTQIA+, Education, Health, Inequity, Student
Section: Health Inequity
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Evaluation of artificial intelligence tools for critical appraisal in evidence syntheses

d'Entremont, G.[1], Stewart, S.[1], Maguire, F.[2], & Hayden, J.[1]
[1] Department of Community Health and Epidemiology, Dalhousie University, Halifax, NS
[2] Faculty of Computer Science, Dalhousie University, Halifax, NS

Abstract

Introduction: The gold-standard of evidence synthesis is the systematic review. Artificial intelligence (AI) tools have shown promise in automating the essential, but time-consuming, systemic review step of critical appraisal. However, the available evidence on the accuracy of these AI tools has not been synthesized, and there is a lack of evidence regarding their reliability and applicability.

Methods: Phase 1: We will conduct a systematic review of peer-reviewed evaluation studies of all AI tools used to automate at least one critical appraisal item/domain. We will perform study screening, data extraction, and quality assessments (using QUADAS-2) in duplicate, with a third reviewer available to resolve disagreements. We will summarize accuracy, efficiency (time savings) and usability outcomes. Phase 2: We will evaluate the accuracy and efficiency of the most promising artificial intelligence tools identified during Phase 1 using datasets from existing systematic reviews, including one of Cochrane's largest published reviews. We will compare a) fully automated and b) semi-automated responses to c) human-only responses. In the semi-automation condition, our critical appraisers will receive forms pre-populated with AI suggestions. Phase 3: We will conduct a prospective, randomized trial, with three study arms: a) full automation, b) semi-automation, and c) human-only. We will evaluate AI tool accuracy and efficiency in a 'real-world' research setting. We will randomly assign each critical appraiser within a pair to either the human-only or semi-automation condition for each included trial. The consensus of this pair will serve as the reference standard.

Conclusion: We aim to provide the robust testing required to responsibly implement AI tools into the systematic review process, allowing health researchers to create and maintain more up-to-date clinical evidence.

Keywords: Artificial Intelligence, Risk of Bias, Systematic Review
Section: Population Health
Presentation Format: Poster

Abstract

Preliminary Impact of a Standing Desk Clinical Trial on Habitual Posture and Cognition in Adults

Macdinald, E.[1], Waghorn, J.[2], Kennedy Inamoto, M.[2], Munroe, C.[2], Inkpen, S.[2], Kimmerly, D.[2], Theou, O.[3], Neyeldi, H.[2], & O'Brien, M.[4]
[1] Department of Neuroscience, Faculty of Science, Dalhousie University, Halifax, NS
[2] School of Health and Human Performance, Faculty of Health, Dalhousie University, Halifax, NS
[3] Physiotherapy and Geriatric Medicine, Dalhousie University, Halifax, NS
[4] Centre de Formation Médicale du Nouveau-Brunswick, Université de Sherbrooke, Moncton, New Brunswick

Abstract

Introduction: Sedentary behaviors are linked to adverse health outcomes, including reduced cognitive functions. University students report high sedentary time, making them a key population for intervention.
Objective: This clinical trial (ID: NCT05970588) examines the impact of a four-week standing desk intervention on habitual activity and cognitive function.
Methods: Thirty-nine participants were randomized into usual activity control (CON) (n=21, 11 females, age: 21.8±3.0 years) or intervention (INT) (n=18, 12 females, age: 22.2±3.3 years) receiving a standing desk converter for 4-weeks. Cognitive function was evaluated using the Stroop task. Free living activity and posture were measured via an activPAL monitor worn 24h/d for 6.2±0.9 days.
Results: INT did not display faster switching minus neutral condition reaction time from pre-post (514±42 to 444±43ms) when compared to CON (559±53 to 467±56ms; p=0.59). Similarly, INT did not exhibit changes in reaction time for incongruent minus neutral (p=0.71). There was no difference in accuracy pre-post in the neutral, incongruent, or switching task between groups (p>0.58). Light physical activity increased in INT (55.2±14.1 to 61.0±16.4 min/day) compared to CON (73.2±26.8 to 52.8±15.3 min/day; p=0.02). Sedentary time had no change pre-post in either CON (573.3±56.8 to 651.5±51.9 min/day) or INT (586.3±69.4 to 602.6±68.3 min/day; p=0.07), however, prolonged sedentary time decreased pre-post in INT (505.2±81.3 to 395.54±114.2 min/day) compared to CON (420.9±89.1 to 492.7±94.7 min/day; p<0.01). Upright time, step count, and moderate-to-vigorous physical activity were not different in either group (all, p>0.19). **Conclusion:** A four-week standing desk intervention increased light physical activity, but the preliminary findings may be underpowered to detect changes in posture. Standing desk converters do not alter cognition in healthy adults.

Keywords: Sedentary Behaviour, Prolonged Sedentary Time, Cognitive Function
Section: Kinesiology
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Assessing Societal and Individual Factors Behind Declining Mental Health in Older Immigrants

Kazi, N. C.[1] & Aubrecht, K.[2]
[1] Health and Innovation, St. Francis Xavier University, Antigonish, NS
[2] Department of Sociology, St. Francis Xavier University, Antigonish, NS

Abstract

Introduction: This presentation shares the results from a knowledge synthesis and evidence-informed research protocol for a study examining self-efficacy and mental health help-seeking among older immigrants. Emerging evidence suggests immigrants who are 65 years of age or older living in Canada and the United States are more likely to experience loneliness, social anxiety, social isolation, and depression than national born citizens, and that the likelihood is higher for women than men. This population is also less likely to seek mental health services and supports.

Methods: Narrative review and synthesis of research publications published 2010-2025 on the social and structural determinants of mental health help-seeking for older immigrants in North America framed by a Sex and Gender Based Analysis Plus (SGBA+) analytical lens.

Results: Current evidence highlights cultural and language differences, eligibility limitations and exclusion from government supports, stigma and social isolation, and poverty. Addressing these issues requires: 1) evidence-based advocacy for inclusive and equity-promoting public policy; 2) community programming supporting socialization among older immigrants and with health providers; 3) individual-level interventions designed to increase self-efficacy and trust in health and social care systems.

Conclusion: This research encourages attention to the ways that policies, practices and personal beliefs and behaviours interact and intersect to shape mental health for older immigrants.

Keywords: Immigrant, Mental Health, Older Adults
*Section***:** Population Health
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Leisure's connection to autistic burnout: A scoping review

Mader, E.[1] & Gallant, K.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: Autistic burnout (ABO) is commonly described by Autistic individuals as a debilitating state of physical and mental fatigue that greatly impacts their ability to function. The cumulative load of daily living demands, stressors, and unaccommodating environments all contribute to ABO. Where engaging in meaningful leisure provides benefits, including improved well-being and stress-coping, Autistic individuals' self-chosen leisure could serve as a way for Autistic people to prevent and recover from ABO.

Objective: I aimed to answer the following research question: what is known in the existing literature about Autistic individuals' experiences with stress and ABO, particularly how Autistic individuals use self-chosen leisure to cope with, prevent, and recover from these experiences?

Methods: Using Arksey and O'Malley's framework, I conducted a scoping review of the literature regarding Autistic people's experiences of stress and ABO. A keyword search across six databases was performed, and I analyzed data from the included studies using Braun and Clarke's methods for reflexive thematic analysis.

Results: From the 13 studies included in the final review, I developed three themes related to my research question, including (a) understanding and acceptance; (b) time and space to just be (Autistic); (c) feelings of control.

Conclusion: Stress and ABO can result from unaccommodating environments, lack of understanding and acceptance of Autism, demands of daily living, and feeling a perceived lack of control. Autistic people use leisure to address these issues in various ways, such as spending leisure time alone, with other Autistic people, and in nature. Engaging in leisure in these contexts allows Autistic people time and space to exist more authentically, regain feelings of control, and increase self-understanding and acceptance of their Autistic needs and identities.

Keywords: Autism, Leisure Activities, Coping Skills, Burnout, Psychological, Scoping Reviews
Section: Recreation and Leisure
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Comparison of Free-Cog with the MMSE, Lawton-Brody Functional Scales, and a Social Vulnerability Index

Penwarden, J.[1], Maxwell, S.[1], Sun, M.[1], von Maltzahn, M.[1], Trenaman, S.[1], & Rockwood, K.[1]
[1] Division of Geriatric Medicine, Department of Medicine, Dalhousie University, Halifax, NS

Abstract

Introduction: The Free-Cog is a brief cognitive test designed to capture decline in both general cognition and executive function. The Free-Cog has been validated by comparison with the Mini-Addenbrooke Cognitive Examination in a UK secondary care setting. Here, we compare Free-Cog to the routinely used Mini-Mental State Examination (MMSE), the Lawton-Brody Instrumental Activities of Daily Living (IADL) and Physical Self-Maintenance Scales (PSMS), and a 19-question Social Vulnerability Index (SVI).

Methods: Patients from three memory clinics were recruited (n=298). The five tests were compared using Pearson correlation. Ability to predict dementia diagnosis using binary logistic regression and the area under receiver operator characteristic (AUROC) curves was determined for the cognitive and functional tests.

Results: Free-Cog score correlations ranged from strong (MMSE: r=0.86, 95% Confidence Interval [CI]: [0.82-0.89], $p<0.001$), to moderate (IADL: r=0.56, 95% CI: [0.46-0.64], p=<0.001) to weak (PSMS: r=0.23, 95% CI: [0.10-0.35], p=<0.001 and SVI: r=-0.18, 95% CI: [-0.33- -0.01], p=0.04). Each 1-point increase in Free-Cog (Odds ratio [OR]: 0.84, 95% CI: [0.76-0.92], $p<0.001$) decreased the odds of being diagnosed with dementia, as the MMSE (OR: 0.79, 95%CI: [0.69-0.90], $p<0.001$), and IADL (OR: 0.73, 95% CI: [0.58-0.92], $p<0.01$). The Free-Cog (AUROC=0.79) best discriminated between dementia and diagnosed otherwise, followed by MMSE (0.74), and IADL (0.69), whereas the PSMS did not (0.43).

Conclusion: The Free-Cog appears to be a valid alternative to the MMSE and supplements the IADL in capturing cognitive and functional changes associated with dementia. Preliminary results show Free-Cog is minimally influenced by SVI, like the other tests.

Keywords: Cognitive Testing, Social Vulnerability, Dementia, Activities of Daily Living
*Section***:** Clinical Research
Presentation Format: Oral

HEALTHY POPULATIONS JOURNAL

Abstract

The role of AI in promoting Health Equity in Primary Health Care: Preliminary results of A Scoping Review

Keyamo, S.[1], Wang, T.[1], & Abbasgholizadeh, S.[1]
[1] Department of Family Medicine, McGill University, Montreal, QC

Abstract

Introduction: The integration of Artificial Intelligence (AI) in healthcare settings could play an important role in achieving the quintuple aim of healthcare, more specifically on improved health equity. However, significant knowledge gaps remain, particularly regarding how AI can promote health equity.

Objective: We intended to address knowledge gaps and explore how AI is being used to promote Health Equity in Primary Health Care settings.

Methods: The scoping review was guided by methodological framework developed by Arksey and O'Malley supplemented by Levac et al, and Joanna Briggs Institute methodological framework for scoping reviews. An information specialist performed a comprehensive search from date of inception to August 2024 in five bibliographic databases. This review included papers that describe use of AI for promoting health equity within primary healthcare. All types of papers and study designs were included, except conference abstracts, commentaries and editorials. Two reviewers independently screened the titles, abstracts and full-text articles according to the defined inclusion criteria and extracted the data using a validated data extraction form.

Results: We retrieved 3488 documents. After the removal of duplicates, 2071 documents were screened, and 10 peer-reviewed publications met our inclusion criteria. We found that the included studies aimed to use AI to promote health equity by improving resource allocation, evaluation, risk and benefit analysis, workflow integration, social determinants analysis, health inequity analysis, identification, communication, and diagnosis.

Conclusion: We observed unique differences in the reporting on the types of AI technologies, participants, primary care settings and outcomes. We demonstrated the applications of AI for promoting health equity, evaluated these AI technologies and exposed knowledge gaps that remain and should be prioritized for future studies.

Keywords: Health Equity, Artificial Intelligence, Primary Health Care
Section: Health Inequity
Presentation Format: Poster

HEALTHY POPULATIONS JOURNAL

Abstract

Creating Flourishing Futures for Girls' Health and Wellbeing

Bemrose, K.[1] & Clark, M.[1]
[1] School of Kinesiology, Acadia University, Wolfville, NS

Abstract

Introduction: Adolescence is a time when girls are renegotiating relationships with their bodies and health. Previous research reveals girls' physical activity levels decline during adolescence, leading to low levels of exercise throughout their lives. Existing research has explored this phenomenon but little has changed. We argue in depth understanding is needed to capture why girls' turn away from physical activity.

Objective: The purpose of this project was to capture girls' insights into their physical activity experiences in different movement settings, including embodied dimensions of physical activity.

Methods: The research team met with the Pathfinders (a Girls Guides Program for girls 12-14 years) weekly, for three weeks. Data was collected through focus group discussions and creative participant centred activities. Thematic analysis was then conducted on interview data and visual materials.

Results: Analysis of creative outputs of creative analysis and focus groups are underway. Early results highlight the importance of providing girls physical activity options and creating spaces that foster positive movement experiences. While girls identified moments of positive embodiment, the spaces and activities that fostered these moments were limited in their everyday life.

Conclusion: In addition to understanding why girls' physical activity declines in adolescence, more focused efforts are needed to create spaces and activities that centre on their enjoyment. These results are relevant to health professionals, educators and youth leaders.

Keywords: Girls Physical Activity, Physical Activity Decline, Movement, Positive Movement Experiences
Section: Kinesiology
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

The Dual Nature and Double Standard of Opioids: A Postcolonial Analysis of the Global Opioid Disparity with Recommendations for Policy Reform

McColl, G.[1]
[1] Lincoln Alexander School of Law at Toronto Metropolitan University, Toronto, ON

Abstract

Introduction: Thousands of families across Canada, the U.S., and other countries in the global north (GN) have witnessed the devastating impacts of opioid misuse or addiction. Simultaneously, millions of families across the global south (GS) have witnessed the indignity and excruciation that accompany a lack of access to opioids for pain management. The opioid epidemic is ravaging communities across the GN while the access crisis maintains and exacerbates health inequities in the GS; I refer to this dichotomy as the global opioid disparity. The stakeholders of these issues are different, yet the perpetrators are the same; therefore, the epidemic and the access crisis should be viewed as one global opioid disparity rather than isolated issues.

Methods: This work applies postcolonial and neocolonial lenses to international and state-level laws and policies while identifying commercial determinants of health to reveal how the global opioid disparity is a result of colonialism, both historically and ongoing.

Anticipated Results: Interrogating the global opioid disparity through these lenses reveals the normative gaps that prevent global health justice. This paper concludes with policy reform recommendations for both increasing availability and access to opioids in the GS and addressing the epidemic in the GN.

Conclusion: Existing literature discusses both the epidemic and the access crisis, respectively. Scholars have addressed the colonial origins of the opioid epidemic and the neocolonial and commercial factors influencing the access crisis and have suggested policy reforms for both; however, there is a lack of research that focuses on the relationship between both of these issues. This paper strives to fill this gap and add unique contributions to the existing discourse while adding a new perspective.

Keywords: Global Health, Health Law and Policy, Opioid Disparity, Commercial Determinants of Health, Pain Management
Section: Health Policy/Law
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Psychosocial Factors and Recovery Outcomes in Acute Care Cardiac Inpatients: A Sex-Based Analysis

Ponto, N.[1], Horne, G.[2], Thakrar, S.[3], Shephard, D.[3], King, C.[3], & Cox, J.[4]
[1] Department of Medical Neuroscience, Dalhousie University, Halifax, NS
[2] School of Biomedical Engineering, Dalhousie University, Halifax, NS
[3] Nova Scotia Health, Halifax, NS
[4] Division of Cardiology, Department of Medicine, Dalhousie University, Halifax, NS

Abstract

Introduction: This study investigates the impact of depression, anxiety, resilience, and empowerment in acute care cardiac inpatients from initial enrollment to hospital discharge.
Objective: The aim is to understand how these factors influence patient outcomes and recovery, particularly exploring any sex differences in these associations.
Methods: Patients were assessed at both enrollment and discharge. The study utilized a series of validated scales including the PHQ-9, GAD-7, CD-RISC-10, and Treatment Empowerment Scale (TES). Descriptive statistics, t-tests, and logistic regression models were employed to analyze the data, with outcomes including changes in mental health, resilience, empowerment, and predictors of follow-up completion, readmission, and mortality.
Results: Preliminary results suggest improvements in mental health, resilience, and empowerment scores in both sexes. Notably, women demonstrated greater improvements in treatment empowerment and resilience compared to men. Logistic regressions revealed that higher PHQ-9 depression scores were associated with incomplete follow-up and higher mortality risk at discharge. However, anxiety, sex, and cognitive scores did not significantly predict readmission. **Conclusion:** These findings suggest that both male and female acute care cardiac patients show improvements in key psychosocial factors throughout admission, with women benefiting slightly more. Depression is a critical predictor of mortality risk and completion of follow-up measures, highlighting the importance of addressing acute mental health for better recovery outcomes. The study underscores the need for targeted psychosocial interventions in acute care cardiac patients.

Keywords: Acute Care, Cardiac Patients, Patient Outcomes
Section: Mental Health
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Reliability of Lower Limb Shear Wave Elastography Muscle Stiffness Measures in Participants with Knee Osteoarthritis

Matthews, R.[1] & Moyer, R.[1]

[1] School of Physiotherapy, Faculty of Health, Dalhousie University, Halifax, NS

Abstract

Introduction: Ultrasound-based shear wave elastography (SWE) permits an accessible route to understanding muscle function in vivo, by providing an objective measurement of muscle stiffness. Most literature has reported good SWE reliability; however, few studies have assessed the reliability of this technique in individuals with knee osteoarthritis. Furthermore, the generalizability of previous findings is often limited to the site of assessment.

Objective: Therefore, the purpose of this proposed study is to quantify the intra- and inter-rater reliability of lower limb muscle stiffness measures in individuals with knee osteoarthritis.

Methods: A convenience sample of 20 individuals with medial osteoarthritis-related knee pain will be recruited from the community. Bilateral muscle stiffness measures will be acquired for the quadriceps (vastus lateralis, medialis and rectus femoris) and hamstring (semimembranosus and semitendinosus) muscle groups, utilizing ultrasound SWE equipped with a linear transducer. Five sequential measures (captured ~2sec apart) will be collected for each muscle and averaged. This process will be completed by two assessors on the same day and repeated one-week later. Intra- and inter-rater reliability of muscle stiffness measures will be evaluated using intraclass correlation coefficients (ICCs). A mixed-measures analysis of variance (ANOVA) will be utilized to compare measures acquired at each time point by each assessor.

Anticipated Results: We anticipate finding good (ICC=0.75-0.9) to excellent (ICC>0.9) intra- and inter-rater reliability across both the quadriceps and hamstring muscle groups and no significant difference between measures acquired at each time point.

Conclusion: The results from this study are expected to support the utilization of SWE as a reliable modality for measuring thigh muscle stiffness in individuals with knee osteoarthritis and contribute to further research investigating the role of muscles in this clinical population.

Keywords: Ultrasonography, Joint Diseases, Quadriceps Muscle, Hamstring Muscles, Reproducibility of Results

Section: Clinical Research

Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Experiences of new immigrants when trying to access or accessing emergency healthcare services in Halifax, Nova Scotia

Jackson, L.[1], Gallant, K.[1], Price, S.[2], & Carter, A.[3]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS
[2] School of Nursing, Dalhousie University, Halifax, NS
[3] Division of EMS, Dalhousie University, Halifax, NS

Abstract

Introduction: Nova Scotia is experiencing increased immigration, however limited research on how new immigrants experience healthcare services and what barriers and facilitators exist (if any) when using emergency healthcare services.

Objective: This qualitative study explores the experiences of new immigrants (19+) seeking access or accessing (in the previous two years) emergency healthcare services in Halifax, Nova Scotia.

Methods: This study uses narrative inquiry to understand new immigrants' emergency healthcare experiences. It will use a three-dimensional narrative analysis considering temporality, sociality, and place. The study has been designed to focus on the interaction between participants, healthcare providers, and services (sociality) within HRM emergency healthcare services (place) in the previous two years (temporal). Immigrant Services Association of Nova Scotia (ISANS) assisted with recruitment by providing information about the study through e-mail, posters, and social media. Participants who volunteer are screened for eligibility, and consent is obtained before conducting a one-hour interview. Audio-recorded interviews will be transcribed verbatim and the data analyzed to identify common themes, patterns, or tensions through the analysis of narratives. **Anticipated Results**: This study's findings will highlight key experiences – both positive and negative – of some new immigrants who have tried to access or accessed emergency health services in Halifax. The study is currently undergoing data collection with 8-10 participants. Preliminary findings are expected in March 2025.

Conclusion: This research is important because it will highlight the experiences of new immigrants who have tried to access or accessed emergency healthcare services including experiences of any facilitators and/or barriers to access. Findings from this study will help to inform policies and practices seeking to ensure new immigrants' access to emergency healthcare.

Keywords: Healthcare, Immigrants, Access, Emergency
Section: Population Health
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Adapting Health Economic Evaluation Metrics to Incorporate Estimates of Environmental Impact

Nsitem, K.[1]
[1] Community Health & Epidemiology, Dalhousie University, Halifax, NS

Abstract

Introduction: Climate change poses a significant threat to human health. While healthcare systems provide vital benefits, they contribute approximately 5% of global greenhouse gas emissions, exacerbating health challenges. Integrating environmental prices into health technology assessments, particularly health economic evaluations, may be an avenue to capture healthcare decisions' impact on health, the economy, and the environment, while incentivizing sustainable practices. This study aims to 1) quantify the potential impact of incorporating a healthcare procedure's environmental price in health economic evaluations and 2) estimate the modifiability of a healthcare procedure's environmental price and its effect on its health economic evaluation. **Methods:** A retrospective analysis using data from the Canadian Spine Society will evaluate patients undergoing cervical spine pain surgery. Objective 1: greenhouse gas impacts will be monetized using carbon prices set by Canada, the U.S., and the U.K., and applied to the numerator of the service's baseline economic evaluation. Statistical comparisons between baseline and modified analyses will be conducted using STATA. Objective 2: descriptive statistics and consultations with providers, managers, and procurement staff, will estimate modifiable environmental prices and their influence on the evaluation.

Anticipated Results: The study will determine whether including environmental prices significantly impacts economic evaluations by analyzing absolute and percentage differences between baseline and modified analyses. Descriptive statistics and stakeholders will identify achievable reductions in environmental prices and economic costs.

Conclusion: This study could inform strategies to incentivize sustainable healthcare and climate readiness. It highlights modifiable factors for reducing environmental prices and could support healthcare decision-making and policy development.

Keywords: Climate Change, Healthcare Delivery, Cost-Outcome Analysis
*Section***:** Population Health
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

The associations between muscle function and post-TKA walking speed for patients with end-stage knee osteoarthritis are sex-specific

Crewe, O.[1], Kozey, C.[1,2], & Astephen Wilson, J.[2]
[1] School of Physiotherapy, Dalhousie University, Halifax NS
[2] School Biomedical Engineering, Dalhousie University, Halifax NS

Abstract

Introduction: Knee osteoarthritis (KOA) is a prevalent condition that results in significant functional decline and currently has no cure. Total knee arthroplasty (TKA) surgery is the gold standard treatment for end-stage KOA: however, 20 to 30% of TKA patients report dissatisfaction after surgery. Previous work has investigated changes in gait biomechanics before and after TKA, focusing on joint angles and moments, and have identified features that change after TKA, which can vary between sexes.

Objective: Due to the role of muscles in controlling joint movement and stability, this study aimed to improve our understanding of the association between muscle function and post-TKA changes in walking speed (WS), and whether these associations differ between males and females.

Methods: This secondary analysis used data collected from 46 male and 61 female participants approximately one-week before and one-year after TKA in the Dynamics of Human Motion Laboratory. Knee extensor (KE) and flexor (KF) strength were collected using standardized protocols, and the overall magnitude and prolonged activity patterns of these muscles during overground walking were captured through surface electromyography. Using linear models, this study aimed to assess the association between muscle strength and muscle activity with changes in WS following TKA.

Results: The associations between muscle function and changes in WS post-TKA were different between males and females. Pre to post-TKA change in KE strength, and both pre-TKA and pre to post-TKA change in prolonged activity for KE muscles during walking were associated ($p<0.05$) with changes in WS for males (r2= 0.09-0.19), but only one pre-TKA KF measure of prolonged activity was associated ($p<0.05$) with changes in WS for females (r2= 0.09).

Conclusion: These results point to associations between muscle activity patterns and post-TKA WS and indicate that TKA rehabilitation approaches should consider males and females separately.

Keywords: Rehabilitation, Surgery, Knee Osteoarthritis, Mobility
Section: Clinical Research
Presentation Format: Oral

HEALTHY POPULATIONS JOURNAL

Abstract

Mental Healthcare Utilization among Traumatic Brain Injury Patients

Truong, T.[1], Asbridge, M.[1], Clarke, D.[2], Kureshi, N.[2], & Feng, C.[1]
[1] Department of Community Health and Epidemiology, Dalhousie University, Halifax, NS
[2] Division of Neurosurgery, Dalhousie University, Halifax, NS

Abstract

Introduction: With mental health posing significant implications for post-TBI recovery and rehabilitation, it is important to understand this relationship to enhance clinical treatment of individuals suffering from these highly comorbid conditions.

Objective: The objective of this study is to compare the demographic, clinical, and neighbourhood factors associated with mental healthcare utilization in TBI patients and controls. The following research questions are proposed: (1) How do rates of mental healthcare utilization in TBI patients compare to the comparator group over a two-year follow up? (2) Which individual-level sociodemographic and clinical factors are associated with mental healthcare utilization in TBI patients compared with controls? (3) Which neighbourhood-level factors (e.g. rurality, SES) are associated with TBI, mental healthcare utilization, and the relationship between the two?

Methods: A 4-to-1 matched cohort from those without a TBI diagnosis in the NSTR was selected by Health Data Nova Scotia. For Q1, a Poisson or similar count-based model will regress mental health visits during follow-up on TBI status and other factors. For Q2 and Q3, multilevel mixed effects Poisson regression models will be used to examine the effects of individual-level and neighbourhood-level effects using multiple models.

Anticipated Results: It is anticipated that TBI patients will have a higher rate of mental healthcare utilization compared to those without a TBI.

Conclusion: Findings from this study can inform clinical decisions and assist clinicians, public health practitioners, and policy makers in ensuring care plans reflect the needs of TBI patients. This allows for prevention of potential long-term consequences and the economic impact of injuries, lessening the burden that TBI has on the Canadian population.

Keywords: Mental Health, Brain Injuries, Traumatic, Patient Acceptance of Health Care, Social Determinants of Health
Section: Clinical Research
Presentation Format: Poster

HEALTHY POPULATIONS JOURNAL

Abstract

Improving Accessibility of COVID-19 Vaccine Information for Adults with IDD: Insights from a Co-Produced Canadian Survey

Yousef, S.[1], Campanella, S.[2], Volpe, & T.[3], Lunsky, Y.[3]
[1] Queen's-Lakeridge Health MD Family Medicine Program, Queen's University, Oshawa, ON
[2] Ontario Ministry of Health, Toronto, ON
[3] Centre for Addiction and Mental Health, Toronto, ON

Abstract

Introduction: Accessible vaccine information is a vital component of effective vaccination programs, however, there is limited research that explores how people with disabilities engage with public health messaging.

Objective: To understand how adults with intellectual and developmental disabilities (IDD) and their caregivers navigated Canada's public health communications regarding COVID-19 vaccines.

Methods: In partnership with adults with IDD and disability organizations, we developed and conducted a national survey on the accessibility of vaccine information in the spring and summer of 2022. Surveys were completed by 208 adults with IDD, 102 family caregivers and friends, and 54 staff. Quantitative data were analyzed descriptively, and descriptive qualitative content analysis was applied to open-ended survey responses.

Results: Vaccine information was difficult to understand and was not accessible to many people with IDD and their caregivers. Most participants found COVID-19 information difficult to understand, with adults with IDD (75%), caregivers (69%), and staff (56%) reporting challenges. All three groups felt overwhelmed by the amount of information they had to navigate (adults with IDD, 72%; family/friends, 65%; staff, 70%) and experienced difficulties finding trustworthy and relevant sources of information. Respondents offered recommendations to improve the accessibility of public health messaging.

Conclusion: We examined how Canadian adults with IDD and their caregivers navigated COVID-19 vaccine information. We share the barriers experienced by participants and solutions proposed to improve public health messaging and vaccine uptake, such as offering information in multiple formats, using easy-to-read language, and supporting caregivers and community organizations to disseminate trusted information. We also share the experiences and lessons from partnering and co-producing research with adults with IDD throughout the project's lifespan.

Keywords: Developmental Disability, Intellectual Disability, Accessibility, COVID-19, Public Health
Section: Health Inequity
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

“Come From Away” – Housing Experiences of International Post-Secondary Students in an Atlantic Canadian Province

Green, N.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: International students are actively recruited to Canada as part of federal, provincial, and Higher Educational Institutions (HEI’s) internationalization policies. Post-secondary international students experience unique, complex challenges sourcing and securing affordable, appropriate, safe housing in their host country, exacerbated by global housing and cost-of-living crises.10% of students in Canada live in campus accommodations - the majority access the private rental sector, with a variety of housing outcomes (from high-end purpose-built student accommodations/PBSA’s to boarding rooms) Research suggests housing affects student health and well-being and academic achievement and can function as a “hidden curriculum”.

Objective: Recognising that housing in Canada is enshrined in law as a human right and is a foundational social & structural determinant of health, this study aims to explore the lived experiences of international students in relation to housing in Mi’kma’ki/Nova Scotia using qualitative research methodology.

Methods: Semi-structured one-on-one interviews with post-secondary international students living and enrolled in UG/Grad/Post-Grad program in NS (valid student ID) are occurring utilising purposive & snowball sampling (12-15 participants). Braun & Clarke’s Reflexive Thematic Analysis (RTA) will be used for data analysis using NVivo as coding software.

Anticipated Results: Centering international students lived experiences to identify barriers &/or enablers to accessing affordable, adequate student housing in NS and exploration of the relationship between pre-arrival expectations and post-arrival experiences.

Conclusion: It is critical for HEI’s to better understand the housing experiences of international students as part of student health & wellbeing accountability frameworks. Scholars from critical housing research to planning to public health (including health promotion) and even economics are calling for interdisciplinary approaches to urgently address core student housing needs.

Keywords: Housing, Social and Structural Determinants of Health, International Students, Internationalization, Higher Education Institutions (HEI's)
Section: Health Inequity
Presentation Format: Poster

HEALTHY
POPULATIONS
JOURNAL

Abstract

Barriers and Enablers to Active Transportation for Adults with Physical Mobility-Related Disabilities in Nova Scotia

Ladouceur, L.[1], Burke, E.[1], Locke, M.[1], Higgins, A.[1], Kirk, S.[1], & Moore, S.A.[1]
[1] School of Health and Human Performance, Faculty of Health, Dalhousie University, Halifax, NS

Abstract

Introduction: Active transportation is a valuable tool for increasing physical health and emotional wellbeing for people with physical mobility related disabilities specifically. Within Canada, Nova Scotia has the highest rate of disability of any province, highlighting the need for local interventions. Active transportation is any form of transportation that is non-motorized where one powers themselves from one location to another. Within communities, it allows for increases in physical activity and reductions in chronic conditions such as cancer, diabetes, and strokes. However, adults with mobility related physical disabilities face unique challenges accessing active transportation due to the built environment and social factors.

Objective: The purpose of this study is to examine the barriers and enablers of active transportation for adults with physical mobility related disabilities within Nova Scotia.

Methods: This study is a part of a larger study facilitated through Communities on the Move. Virtual semi-structured interviews will be conducted to understand the subjective experiences of the participants. The data will be analyzed using reflexive thematic analysis.

Anticipated Results: Based on the current literature the anticipated results will reveal inaccessibility within the built environment, stigma, and lack of support as barriers to active transportation. These barriers limit one's ability and want to participate with active transportation in their community.

Conclusion: This study contributes to gaps in current literature and evidence surrounding active transportation barriers for people with physical mobility related disabilities. The findings may also add relevant information for policy developments surrounding active transportation barriers within Nova Scotia.

Keywords: Active Transportation, Mobility-Related Physical Disabilities, Built Environment, Social Inclusion
Section: Health Inequity
Presentation Format: Oral

HEALTHY POPULATIONS JOURNAL

Abstract

Breaking Down Barriers to Play: Exploring Risky Play Experiences of Children with Neurodevelopmental Disabilities

Binks, W.[1], Locke, M.[1,2], Allison, A.[3], Sora, D.[4], Best, K.[5], & Moore, S. A.[1,2,6]
[1] Dalhousie University, School of Health and Human Performance, Halifax NS, CA.
[2] Healthy Populations Institute, Dalhousie University, Halifax NS, CA.
[3] Variety Village, Toronto, ON, CA
[4] Center for Accessible Sport and Play, Pickering, ON, CA
[5] Department of Rehabilitation, Faculty of Medicine, Université Laval, Quebec City, QC, CA
[6] Department of Pediatrics, Faculty of Medicine, Dalhousie University, Halifax, NS, CA.

Abstract

Introduction: Play is an essential part of development. Risky play is a phenomenon that promotes spontaneous play that includes elements of risk. Children with Disability (CWD) often face barriers and limitations when engaging in risky play.

Objective: The purpose of this study is to promote risky play opportunities for CWD, specifically by understanding risky play experiences of children with neurodevelopmental disabilities (CWNDD's). This research will work towards creating more inclusive outdoor and risky play environments.

Methods: This study will use a qualitative description and a social constructivist worldview. CWNDD's will be recruited to participate in virtual interviews that follow a semi-structured interview guide. This interview structure will allow for open-ended answers from the children. We will interview a minimum of eight children (ages 8-14) with neurodevelopmental disabilities. Each interview will be recorded and then transcribed. The interviews will then be interpreted using a reflexive thematic analysis. Aiming to draw themes from each interview through the lens of a SEM framework.

Anticipated Results: It is anticipated that CWNDD's experience barriers to risky play. It also anticipates finding a positive correlation between risky play experiences and overall well-being and developmental growth.

Conclusion: This study will work towards providing an insight into how CWNDD's themselves understand risky play and what factors may influence their ability to participate in risky play. There is a lack of research on CWNDD's lived experiences when it comes to risky play and this study intends to create a more inclusive environment within risky play scenarios.

Keywords: Risky Play, Neurodevelopmental Disabilities, Inclusive Play, Socioecological Model, Outdoor Play
*Section***:** Health Inequity
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Improving Physical Activity Measurement in Children with Chronic Medical Conditions and Disabilities: Validating a Novel Health Survey

Authors: Fera, G.[1], Hadayeghi, L.[2], Locke, M.[1,3], Timmons, B.[2,4], & Moore, S.A.[1]
[1] School of Health & Human Performance, Dalhousie University, Halifax, NS
[2] Child Health & Exercise Medicine Program, Department of Pediatrics, McMaster University, Hamilton, ON
[3] Healthy Populations Institute, Dalhousie University, Halifax NS
[4] Department of Kinesiology, McMaster University, Hamilton, ON
[5] Department of Pediatrics, Faculty of Medicine, Dalhousie University, Halifax, NS

Abstract

Introduction: Lifelong physical activity (PA) is important for the holistic health of all children, including those with chronic medical conditions and disabilities (CMCD). However, our knowledge surrounding the PA needs and behaviours for children with CMCD is limited, partly due to the lack of reliable tools for measuring PA in this population. Therefore, the purpose of this study is to determine the validity of a novel health survey in measuring PA for children with CMCD in Nova Scotia. This study is part of the international, multicenter research initiative MOMENTUM.

Methods: Children aged 12 to 17 years with CMCD, plus a parent or caregiver, will be recruited from local institutions such as the IWK health center. Participants will be asked to complete the health survey, with accelerometry data being collected in conjunction to validate the self-reported PA. Spearman correlations will be used to determine the similarity between both measures, and Bland-Altman tests will calculate bias and limits of agreement.

Anticipated Results: Acceptable correlations between both measures (≥0.50) are anticipated, supporting the validity of the health survey in measuring PA. Additionally, Bland-Altman statistics are expected to fall within acceptable limits, where 95% of the data points are within ± 2SD of the mean difference, and the limits of agreement are below the smallest detectable change determined from the test-retest reliability of the survey.

Conclusions: Valid tools for measuring PA in children with CMCD are essential for developing tailored PA guidelines and interventions. This study supports the development of accessible and accurate PA measurement tools, helping to ensure appropriate data exists to inform PA guidelines and interventions for children with CMCD, ultimately promoting their health and well-being.

Keywords: Physical Activity Measurement, Chronic Medical Conditions, Children with Disabilities, Survey Validation, Accelerometry
Section: Health Inequity
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Legally Analyzing PM2.5 Emissions from Local Sources: A Case Study of a Neighbourhood in Nova Scotia

Reid, H.[1], Rainham, D.[1], Wildeman, S.[2], & Dobbelsteyn, E.[2]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS
[2] Schulich School of Law, Dalhousie University, Halifax, NS

Abstract

Introduction: Particulate matter air pollution is a leading environmental threat to human health. Research suggests an association between concentrations of PM2.5 and negative respiratory, cardiovascular, and chronic diseases. Although satellite-derived concentrations of PM2.5 are relatively low in Nova Scotia (generally less than 6μg/m3), models often overlook PM2.5 hotspots due to limitations of sensor resolution and model granularity. A recent measurement campaign in the north-end of Halifax revealed repeated exceedances of federal air quality standards. So, this study aims to investigate potential legal remedies to mitigate high concentrations of PM2.5 in relevant jurisdictions, using a case study in Halifax.

Methods: A case brief will be developed using FILAC (facts, issues, law, analysis, conclusion) – a legal research approach. Facts and issues will be drawn from empirical studies of air pollution. A review and analysis of legislation at federal, provincial, and municipal levels will explore relevance to legal authority and regulation to limit or control emissions to protect human health. Anticipated **Results**: It is anticipated that existing legislation fails to counteract local sources of PM2.5 air pollution and an emitter's inclination to avoid accountability about harms they may be causing. The research will identify potential routes to mitigation and make recommendations to support legislative change to reduce emissions and promote population health.

Conclusion: This legal analysis will provide an understanding of the application of legislation to current environmental health issues. Moreover, it may act as a foundation in advocating for reformation in current legislation relating to PM2.5 in relevant jurisdictions.

Keywords: PM2.5, Health, Pollutant, Legal
Section: Health Policy/Law
Presentation Format: Oral

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Assessing Public Health Policy Alignment with EDIRA and ARAO in Nova Scotia, Canada

Ferron, M.[1]
[1] School of Health and Human Performance, Dalhousie University, Halifax, NS

Abstract

Introduction: In 2022, Nova Scotia implemented the Dismantling Racism and Hate Act, which called for the development a provincial strategy to address racism, inequity and systemic hate. This led to the making of the Health Equity Framework (HEF). However, it is still unknown whether existing healthcare policies align with the principles of Equity, Diversity, Inclusion, Reconciliation, and Accessibility (EDIRA) and Anti-Racism and Anti-Oppression (ARAO). Through the establishment of an interdisciplinary research team (health system partners, government partners, and academics), this project aims to assess the alignment of health system policies with EDIRA and ARAO principles for health system partners in Nova Scotia. Specifically, this study analyzed public health policies.

Methods: Health system partners of the project provided a selection of policies that were deemed valuable to have been evaluated for alignment with the principles of EDIRA and ARAO. Each health system partner provided 75 policies for analysis. We co-created an analytic framework with health system partners that was applicable to the Nova Scotian context. The framework operates on a five-point scale (not applicable, not-evidenced, evidenced, demonstrated, and integrated). Two members of the research team will analyze the collection of public health policies using the co-created framework. Analyses will be compared to ensure consensus in decision-making between researchers.

Anticipated Results: It is expected that we will identify current strengths and areas for improvement across the healthcare system with respect to the policy application of the principles of EDIRA and ARAO. We anticipate finding evidence of alignment with the principles of EDIRA and ARAO but not integration of the principles.

Conclusion: This policy analysis has the potential to aid in dismantling structural inequities. Assessing the alignment of health system policies with EDIRA and ARAO principles provides a foundation necessary to embed these principles across the health system. This project will aid to improve policy development and evaluation and quality of care, enabling patients to achieve better health outcomes. Providing a stronger commitment to drive equity-driven public health initiatives, findings will contribute to broader discussions on health system transformation, ensuring Nova Scotia's healthcare policies reflect standards of Equity.

Keywords: Equity, EDIRA, ARAO
Section: Health Policy/Law
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Exploring Challenges in Canadian Women's Retirement Transition

Kaur, D.[1] & Hutchinson, S.[1]
[1] School of Health and Human Performance, Faculty of Health, Dalhousie University, Halifax, NS

Abstract

Introduction: Retirement is a major life transition bringing new opportunities and challenges. While research often focuses on financial preparedness, women's retirement experiences are shaped by additional factors such as caregiving responsibilities, gendered labor histories, and longer life expectancy. Existing studies overlook how these intersecting factors impact women's fears, challenges, and surprises during retirement.

Objective: The purpose of this research is to explore the potential challenges experienced by Canadian women during retirement transition.

Methods: This study will conduct a secondary analysis of qualitative data from the online survey conducted in 2020 by Hutchinson and Ausman on Canadian retirees' experiences. From 748 respondents, this study will analyze responses of 509 retired Canadian women using qualitative description. Reflexive thematic analysis will be used to generate themes related to fears, challenges, and surprises, drawn from 3 of the 6 open-ended survey questions.

Anticipated Results: This study expects to reveal potential challenges Canadian women face during retirement transition. It may uncover concerns about financial security, identity shifts, social roles, and emotional adjustments. Findings will provide insight into how individual experiences are shaped by broader social and structural factors, highlighting retirement complexities.

Conclusion: This study will highlight the challenges Canadian women face during retirement transition, including financial, social, and psychological factors. Findings may inform policies and programs supporting financial security, social connections, and well-being. This research can guide interventions to improve women's retirement experiences.

Keywords: Retirement Transition, Canadian Women, Retirement Challenges
Section: Health Inequity
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Participatory Indigenous Health Research in Atlantic Canada: A Scoping Review Update

Fitzgerald, E. J.[1] & Martin, D.[1]
[1] School of Health and Human Performance, Faculty of Health, Dalhousie University

Abstract

Introduction: Participatory research (PR) is often considered one of the most promising ways to undertake Indigenous health research. It involves a collaborative approach with the potential to improve research quality, empower communities, and increase research benefits to the studied communities. Engagement can be incorporated at different stages of the research process Ideally; Indigenous health research would include it in the entire process. A previous scoping review completed in 2020 revealed potential for improvement.
Objective: The purpose of this review is to determine the scope of community engagement in Indigenous health research in the four Atlantic Canadian provinces (NS, NL, NB, PEI) between May 2020 and May 2025.
Methods: Following the Arksey & O'Malley (2005) framework, the scoping review will search relevant databases for keywords identifying all Indigenous health research undertaken in Atlantic Canada from May 2020 to May 2025. Data from included articles will be extracted using a previously published data charting form.
Anticipated Results: Results will determine if the extent of published community engagement in Indigenous health research has changed since the previous scoping review, completed in 2020. It will analyze data regarding the types of health research and stages of the research process that report community engagement.
Conclusion: This review will identify the extent to which participatory Indigenous health research is happening in Atlantic Canada. It will determine if the previous identification of gaps and promotion of PR are working and where efforts should be placed for improvement.

Keywords: Health Research, Atlantic Canada, Indigenous Peoples, Scoping Review
Section: Health Inequity
Presentation Format: Oral

HEALTHY
POPULATIONS
JOURNAL

Abstract

Data Physicalization Design in Approaching Revenge Bedtime Procrastination among Canadian Youth

Shevtsova, A.[1] & Jimenez Garcia, J.[1]
[1] School of Industrial Design, Carleton University, Ottawa, ON

Abstract

Introduction: Sleep problems are on the rise in Canada, particularly among youth, as one in two struggle to fall asleep, one in four do not get enough sleep (1), and over 60% of students get poor quality sleep (2). With 75% of students considering themselves procrastinators (3), these combine into 'revenge bedtime procrastination' or avoiding going to sleep at intended times (4), leading to sleep deprivation, stress, and mental health issues, increasing anxiety and depression (5). Studies show that 53% of young adults engage in bedtime procrastination (4). Little research has been conducted on developing effective strategies to address bedtime procrastination among youth.

Methods: Proposed research consists of three parts: an open survey, prototype development, and testing. A survey will be used to understand students' revenge procrastination experience. Then, design methods will help to develop a data physicalization prototype. Types and instances of data based on needs identified previously will be transformed into a tangible design. Finally, testing will expose participants to the final prototype over two weeks, to assess how the design affects awareness and patterns of bedtime procrastination.

Anticipated Results: My hypothesis is that by understanding cognitive processes behind the phenomena, and by applying data physicalization to represent personal data related to revenge bedtime procrastination, a physical artifact can be created to foster reflection in students and contribute to reducing negative effects of such procrastination. This work will uncover reasons behind the phenomena and test the effectiveness of data design tools.

Conclusion: By applying a new domain of tangible data to an increasing issue among Canadian youth, my work aims to contribute to both fields: designing a data object to help decrease such procrastination, and creating guidelines for effective physicalization design for youth to foster reflection and self-awareness.

Keywords: Bedtime Procrastination, Sleep, Health, Data Physicalization, Design
Section: Population Health
Presentation Format: Oral

Acknowledgements

2025 Crossroads Conference Sponsors & Donors

DALHOUSIE UNIVERSITY | HEALTH

CUPE NOVA SCOTIA

RESEARCH NOVA SCOTIA

MacEachen
INDEPENDENT. INFORMED.

HEALTHY POPULATIONS INSTITUTE

GRADUATE STUDENT SOCIETY
HEALTH AND HUMAN PERFORMANCE
2023-2024

shāntiyoga

SPIN/CO

Interested in publishing with HPJ?

Please visit https://ojs.library.dal.ca/hpj/ to see current calls for submissions for upcoming issues and general submission guidelines.