Welcome from the Conference Co-Chairs

Healthy Populations Journal (HPJ) is a multi-faculty, student led, open access, peer-reviewed journal housed at HPI at Dalhousie University. As part of our mission to support and disseminate research which advances knowledge on population health research and global health equity, we partnered with the *Crossroads Interdisciplinary Health Research (Crossroads) Conference* to highlight the student-led research presented at the 19th annual conference on March 10th and 11th in Halifax, Nova Scotia.

The Crossroads Conference is a student-led and student-centered initiative that began within the School of Health and Human Performance at Dalhousie University and is now affiliated with the Healthy Populations Institute. Crossroads began with a focus on Nova Scotian students and has grown to welcome students from across Canada and beyond. The conference aims to provide the next generation of leaders and innovators in health research with a forum to gain valuable skills and experience in knowledge translation, interdisciplinary collaboration, and critical thinking. Crossroads offers opportunities for students to share their research, network with peers and experts, and attend panel discussions, mini-courses, and keynote lectures.

On March 11, 2020, two days before the 18th iteration of Crossroads, the COVID-19 pandemic shut down the world. While Crossroads endured a three-year hiatus, the Healthy Populations Journal emerged as a student-led initiative with the aim of highlighting population health and global health equity research. In 2023, Crossroads was revived, and the HPJ continues to thrive.

In 2023, attendees returned to Crossroads with new perspectives after living through a global pandemic. The COVID-19 pandemic exacerbated many pre-existing global health crises and created new population health challenges. The 2023 Crossroads theme of *(Re)picturing Health* highlighted these new perspectives and encouraged new and innovative approaches to solving health-related challenges.

Abstracts in this issue explore wide-ranging and timely topics related to population health, health inequity, applied science and engineering, clinical research, health policy, kinesiology, mental health and addiction, and recreation and leisure. The cover of this issue features a photograph of students participating in the photovoice methodology workshop at Crossroads on March 10, 2023.

This special issue would not be possible without support from the Healthy Populations Institute, CUPE Nova Scotia, Dalhousie University's Faculty of Health, Dalhousie University's Office of the Vice President of Research and Innovation, Nova Scotia Department of Health and Wellness, and Dalhousie University's School of Health Administration, and support from the HPJ Editorial Board Members.

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Abstract

Exploring the Suitability and Benefits of Two Different Mindfulness-Based Interventions with Marginalized Female Youth

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Abstract

Introduction: There are many changes that occur during the transition from adolescence to adulthood, which can result in increased vulnerability to mental health challenges, particularly for female youth. Developing resilience and emotion regulation skills can be helpful in dealing with these challenges. Youth can develop these skills by engaging in mindfulness-based interventions (MBIs). MBCT-C (Mindfulness-Based Cognitive Therapy for Children) and HAP (Holistic Art-based Program) are two different MBIs. Method: A mixed-method design was used. The study included 42 Iranian female adolescents aged 12-17 living in rural and remote regions of Iran. Eligible participants were randomly assigned to one of the 8-week MBCT-C or HAP. All participants were interviewed at baseline and post-intervention. In addition to the qualitative assessments, quantitative data were collected two months and four months after the program ended. The collected data were analyzed using repeated measures analysis of variance (ANOVA). To analyse the qualitative data reflexive thematic analysis was used. Results: Students in both groups demonstrated significant changes in resilience and emotion regulation at the end of the intervention with medium to large effects ($p < 0.05$) which maintained following the program. The analysis of qualitative results showed five themes for each program including: a) the benefits of MBCT-C or HAP, b) The learned lessons, c) Group-related factors, d) mindfulness's challenges, and e) the cultural and contextual components.
Discussion: Based on the results of the study, it appears that MBIs can have a potential benefit for improving resilience and emotion regulation in marginalized populations living under high context stress.

Keywords: female youth, mindfulness, emotion regulation, resilience
Research Area: Mental Health/Addiction
Research Method: Mixed Methods

Abstract

Dynamic Digital Resources to Meet the Mental Health Needs of Children and Families: COVID-19 and Bridging the Gap

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Abstract

Introduction: Due to Covid-19, a growing number of community-based mental health services are offering digital mental health resources. Digitalized mental health contents are not routinely embedded within local mental health organizations' services in Northern Ontario. Thus, specific context-based considerations might need to be applied to developing and implementing digital resources by mental health organizations located in Northern Ontario. Method: The target population was child-serving organizations situated in northeastern Ontario; specifically, within Greater Sudbury and the Sudbury District. A sample of six organizations was selected with representation from the mental health, social services, and health sectors. Semi-structured interviews were conducted with 1-2 key personnel (e.g., administrator, clinician) from participating organizations. Audio recordings from the semi-structured interviews were transcribed and thematically analyzed through thematic analysis. Results: Thematic analysis of the data resulted in a total of 13 excerpts which were categorized into two major themes including: 1) digital mental health services as a valuable resource for organizations both during and after the pandemic; and 2) barriers and facilitators to successful implementation of digital mental health resources in northern Ontario. Discussion: According to employees of mental health organizations in northern Ontario, digital mental health resources are generally acceptable to young people. However, they raised several concerns that may hinder their implementation into routine practice and service delivery. It should be simple and straightforward to implement digital systems, which should enhance rather than hinder clinical workflows. In order to successfully implement digital systems, a clear plan is needed.

Keywords: Digital, Mental Health, Northern Ontario, Covid-19, Pandemic
Research Area: Mental Health/Addiction
Research Method: Qualitative

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Abstract

Examining a Traditional Versus Coaching-based Physical Activity Prescription Program (RxTGA) on Motivation and Exercise

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Abstract

Introduction: Regular physical activity (PA) has positive effects on health and mitigates adverse conditions, yet becoming and staying active remains a challenge. Psychological constructs including self-efficacy (SE) and motivation are important facilitators for PA adherence. Motivational interviewing (MI), a client-centered counselling style, is known to influence behaviour positively, but has yet to be examined in an exercise prescription context. The study purpose was to examine motivation and SE over a 6-week PA intervention via "Prescription to get Active" (RxTGA), an Alberta-based exercise program for adults who are not meeting PA guidelines and may be at risk for chronic disease. Participants receive a RxTGA from their health care provider and create a personalized program online with the goal of being regularly active. Methods: In this randomized controlled trial, participants were allocated to either a traditional (i.e., independent PA; n = 13) or coaching (i.e., independent PA plus 6 weekly, 30-minute phone sessions with a trained study coach) condition. Participants completed the Self-Efficacy for Exercise Scale (SEE) and Behavioural Regulations in Exercise Questionnaire-3 (BREQ-3) at baseline and post-intervention. Descriptive statistics and two-way ANOVAs were used to analyze the data. Results: Results revealed a positive significant difference between groups across time for SEE (p=.037). For the BREQ-3, there was a statistically significant effect across time between groups for integrated regulation (p=.003). Conclusion: Supportive MI-based coaching appears to influence important psychological constructs positively in as little as 6-weeks. Results will be discussed in terms of related benefits, PA adherence, and future recommendations.

Keywords: Motivation, Self-Efficacy, Physical Activity, Motivational Interviewing
Research Area: Population Health
Research Method: Quantitative

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Abstract

Exploring the mental health impacts of gender for women in adventure recreation spaces: A qualitative study

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Abstract

Introduction: Adventure recreation has traditionally been dominated by men, and the dominant narrative in research has been centred around the experiences of men. There have been a number of studies which explore the perceived benefits of adventure recreation on the mental health and wellbeing of participants, but few studies have focused exclusively on the experiences of women and the role that gender socialization and norms play in shaping their sense of wellbeing within adventure recreation. The purpose of this research is to describe the mental health of women as it relates to their experience of gender norms and social expectations within the context of adventure recreation. Methods: Data will be collected through a series of in person qualitative interviews with young women between the ages of 19 and 35, who are located in Canada. Participants must be actively involved in adventure recreation activities. Interviews will be recorded and transcribed before being coded and analyzed using reflexive thematic analysis. Anticipated results: It is expected that the participants will share their thoughts and perspectives on the role that gender has in shaping their mental health and how adventure recreation spaces have influenced their perceptions of gender, mental health and wellbeing. Significance: This project hopes to highlight the importance of representation of people of all genders within adventure recreation spaces and may highlight the barriers and negative perceptions that women have about engaging in these activities.

Keywords: Adventure Recreation, Gender, Mental Health
Research Area: Recreation and Leisure
Research Method: Qualitative

Abstract

Factors responsible for amenable hospitalizations within rural Eastern Ontario: An analytical paper

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Abstract

Amenable deaths are such that can be avoided with changes made to healthcare access or public health interventions. Rather than focusing on individual factors that cannot be altered by health programs, such as place of residence or sex, community level factors can be identified and targeted to improve access to health care and in doing so effect or halt progression of disease. This analytical paper aims to identify amenable hospitalizations within rural Eastern Ontario using Canadian Census Health and Environment Cohorts data. After which, a geographically weighted distribution will be used to determine if there are characteristics of the population responsible for higher rates of hospitalization across neighbourhoods. Modifiable characteristics will be identified and if found to be significant, recommendations will be made to address access issues.

Keywords: Rural Population, Population Health, Social Medicine
Research Area: Population Health
Research Method: Quantitative

Abstract

Improving Adult Inpatient Eating Disorder Treatment: Perspectives of Canadians with Lived Experience

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Abstract

Introduction: Despite the high prevalence and mortality rates of eating disorders (EDs) in Canada, adult inpatient eating disorder (ED) treatment remains unstructured, inaccessible, and inadequate in supporting Canadians who require care. The purpose of this qualitative phenomenological study was to determine how adult inpatient ED treatment can be improved to better serve Canadians who require care from the perspectives of those with lived referral and/or participation experience. Methods: This study employed a transformative philosophical worldview and applied feminist standpoint theory. Data was collected from eleven Canadians with lived experience via one-on-one virtual interviews and follow-up meetings. Demographic information and perspectives on referral, transitional periods, and treatment itself were collected. Data was analyzed using interpretive phenomenological analysis. Results: Aspects of referral, transitional periods, and treatment that participants considered to be supportive and/or unsupportive of their ED recovery were identified through data collection and analysis. Furthermore, data analysis assisted in the development of a list of participant-informed recommendations for the improvement of adult inpatient ED treatment in Canada. Conclusion: The findings and recommendations that resulted from this research should act as a guide for healthcare professionals and policymakers when working towards the much needed improvement of current adult inpatient ED treatment processes in Canada. Additionally, this research emphasizes the benefit of, and the need for, increased inclusion of lived experience in future studies pertaining to ED treatment.

Keywords: Eating Disorders, Canada, Inpatient Treatment, Lived Experience, Mental Health
Research Area: Mental Health/Addiction
Research Method: Qualitative

Abstract

Young Black Girls' Sexual and Reproductive Health Access in Halifax during the Pandemic

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Abstract

Introduction: Healthcare service access and delivery, including sexual and reproductive health (SRH) services, have been negatively impacted by the COVID-19 pandemic. Adolescents and young people may have faced additional barriers in accessing SRH services during the pandemic since these populations are often not prioritised. Moreover, since the Black population is often at a disadvantage to healthcare access, Black girls in Canada may experience poorer health outcomes. This study aimed to understand young Black girl's access to SRH services in Halifax during the COVID-19 pandemic. Methods: Using qualitative methods, in-depth interviews were conducted with four young Black girls who accessed SRH services in Halifax during the pandemic. Qualitative data were also obtained from interviews with three SRH care providers working in Halifax. These seven interviews allowed the researcher to learn about young Black girls' experiences, explore SRH service modifications, and uncover the extent to which service accessibility was affected. Interviews were recorded and transcribed, and thematic analysis was employed to identify themes. Results: In the wake of the pandemic, sexual health clinics did not offer in-person appointments, so testing for sexually transmitted infections (STIs) and contraceptive insertion were suspended. STI diagnostic equipment were diverted for COVID-19 testing. For six months, services were modified and provided virtually, including online STI screening. Young Black girls reported poorer access to SRH services during the pandemic even though they continued to engage in sexual activities. Young Black girls turned to non-governmental organisations and pharmacies for abortions and contraceptive pills while other sexual health concerns were put on hold. Significance: Findings from this study underscore the importance of improving access to SRH services for young Black girls and all youth and facilitating SRH access in Canada to improve health indices.

Keywords: Sexual Health, Reproductive Health, Young people
Research Area: Health Inequity
Research Method: Qualitative

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Abstract

Adolescents and Young People’s Access to Sexual and Reproductive HIn ealth Services During the Pandemic: A Scoping Review

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Abstract

Introduction: COVID-19 pandemic affected access to healthcare service globally, including sexual and reproductive health (SRH) services. Several studies that examined the impact of the pandemic on SRH have focused on the general population. Few studies have examined the experience of young people in accessing sexual and reproductive health services during the pandemic but there is need to have a holistic picture. As young people face discrimination in accessing sexual health care based on their age, access to sexual health services may be further challenging during national health emergencies like the COVID-19 pandemic. This study aimed at analysing available literature on young people’s access to SRH services during the pandemic. Methods: This scoping review followed the framework by Arksey and O’Malley’s (2005). A literature search of four databases yielded 732 studies. Screening by title, abstract, and a full text review against set inclusion criteria produced 53 studies. From the selected studies, relevant data were extracted, and thematic analysis was employed to identify emerging themes from the data. Results: Access to SRH services was significantly reduced in the first few months of the pandemic (March -August 2020) after which services became were more accessible gradually. Although SRH service accessibility was significantly affected for all ages, individuals 13yrs and below were worse hit as studies reported up to 100% reduction in access for that age group. Lockdown, fear of contracting COVID-19 and inability to access SRH service confidentially were the leading factors responsible for reduced access. Access to abortion and contraception services, with variation by age groups and methods respectively, increased during the pandemic while access to pre-exposure prophylaxis (PrEP) was reportedly reduced. Significance: Findings from this scoping review is relevant for planning, in future emergencies, to ensure continued access of young people to SRH services.

Keywords: COVID-19, Sexual and Reproductive Health, Young People
Research Area: Population Health
Research Method: Qualitative

Abstract

Effects of Race-Based Traumatic Stress on Cognitive and Emotional Processes: Preliminary Results from a Two-Part Study

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Abstract

Introduction: Traditional stress is linked to impaired executive functioning (EF). This two-part study investigates whether race-based stress similarly alters EF, as well as how racial socialization (RS) strategies may moderate this relationship. Methods: For the first part of the study, 41 BIPOC participants (ages 19 – 62; 30 female, 10 male, 1 non-binary; 22 non-native Canadians) completed online measures of race-based stress (RBTSSS), ethnic identity (MEIM-R), racial coping self-efficacy (RaSCS), familial RS (FRSS), and EF (BRIEF-A). Results: Regardless of nativity status, 34% of the participants reported clinically significant elevation on at least one RBTSSS scale ($n = 14$). Bivariate associations showed that greater familial RS was associated with a stronger sense of ethnic identity ($r = .47$, $p = .002$). Higher confidence on the RaSCS was associated with increased EF across several subscales ($r \geq .32$, $p \leq .04$) as well as with increased self-esteem, $r = .26$, $p = .05$. The BRIEF-A Emotional Control index was associated with elevated symptoms of depression, anger, and hypervigilance ($r \geq .27$, $p \leq .04$), as well as with total race-based stress symptom elevations, $r = .30$, $p = .03$. Anger and low self-esteem symptoms were associated with worse EF across multiple subscales (for anger, $r \geq .29$, $p \leq .03$, and for low self-esteem, all $r \geq .27$, all $p \leq .05$). Conclusions: This preliminary investigation demonstrates that BIPOC individuals experience high levels of race-based stress likely leading to executive dysfunction in similar ways to traditional stress. Findings suggest specific aspects of the psychological impact of racial discrimination on EF, although causal pathways have not been tested.

Keywords: Racial Discrimination, Executive Function, Racial Socialization, Health Disparity
Research Area: Health Inequity
Research Method: Quantitative

Abstract

Exploring the lived experiences of occupational balance among mature graduate students: A phenomenological study

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Abstract

Introduction: Occupational balance (OB) is a concept used by occupational therapists and scientists to better understand the subjective experiences of people's engagement with varied and meaningful occupations that meet one's personal needs (Wagman et al., 2011). Dissatisfaction with OB can sometimes lead to occupational imbalance -- which, if unmanaged, can negatively impact mental wellbeing (e.g., Eakman, 2016). This research aims to explore the phenomenon of OB among thesis-based mature graduate students as this is a population who has not yet been explored in the OB literature and they are a population known to experiencing mental health challenges (Levecque et al., 2017). Methods: Using phenomenology (Smith et al., 2022), this research focuses on the everyday lived experiences of balance or imbalance. Recruitment began in November 2022, and data was collected from 8 participants through semi-structured interviews. Anticipated Findings: The findings hope to provide insight about how OB is experienced by mature graduate students and how it might impact their mental wellbeing. Findings may also help to provide context about the different factors impacting students OB. Conclusion/Significance: This research may help to provide insights about the overall wellbeing of students which can be useful to students as well as services at the university that support student wellness. Findings may also provide students with insights about how to achieve and maintain OB beyond graduate studies once in the workforce. This research also has potential to add to our current understanding of OB within the field of occupational science, particularly because it explores this concept within the context of graduate studies where the main occupations are not paid work.

Keywords: Occupational Balance, Wellbeing, Mature Graduate Students, Thesis-based Students
Research Area: Mental Health/Addiction
Research Method: Qualitative

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Abstract

Exploring the Possible Impacts of a Guaranteed Livable Income on Women with Disabilities in Nova Scotia

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Abstract

Introduction: The purpose of this thesis is to explore the possible impacts of a guaranteed livable income (GLI) on women with disabilities. Women with disabilities (WWD) experience high rates of poverty and poor health, and they are more likely than men with disabilities to rely on provincial disability benefits which provide an income below the poverty line. Past research shows that a GLI could reduce poverty and health inequality, but research so far excludes WWD's experiences. Given the inequalities WWD face this is a significant gap. Methods: This thesis will be conducted using constructivist grounded theory underpinned by social justice inquiry. Participants will be WWD with experience being on provincial disability benefits, and Nova Scotian GLI advocates. 10-12 participants will be recruited through social media posts, posters, and emailing advocacy groups. Analysis will involve coding for major themes that will then be developed into a theory to explain the potential impact of a GLI on WWD. Anticipated Results: This thesis will explore the barriers WWD experience due to inadequate income support, and the negative impacts these barriers have on their health. The results will likely highlight this population's need for additional support, demonstrate how a GLI could benefit them, and establish GLI's strengths and limitations as an intervention. Significance: The results of this thesis are significant for policy makers who wish to address poverty and health inequality among women with disabilities, by providing evidence of GLI's effectiveness as a potential intervention for this population.

Keywords: Poverty, Disabled Persons, Social Justice, Health Status Disparities
Research Area: Health Inequity
Research Method: Qualitative

Abstract

Assessing student mental health: Cultural patterns of normalcy and deviancy within a university community

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Abstract

Introduction: Academic communities may share beliefs and scripted practices of 'normalcy' (e.g., optimal functioning) and 'deviancy' (e.g., manifestations of suffering) that influence the way staff and students understand positive development, identify symptoms, and offer/search for support. Ethnocultural minority students might have more difficulty following these shared models. This research aims to understand mainstream models of normalcy and deviancy in the Concordia University community and to investigate how the degree of fit with these models correlates with mental health of students. Method: Study 1) Undergrad students (n=60) and staff (n=60) will free-list upon 10 open-ended questions about the local culture of normalcy and deviance. Study 2) The most salient terms listed will be sorted by undergrads (n=24) and staff (n=24) into piles while they "think out loud". Audio will be analyzed by content analysis, and piles by multidimensional scaling and hierarchical cluster analysis which will inform potential cultural models. Study 3) To test for cultural consensus on the models, structured data collection instruments are prepared and administered to undergrads (n=30) and staff (n=30). Factor analytic methods will estimate agreement. Where consensus is confirmed, the "cultural answer key" is calculated. Study 4) Measures of cultural fit will be developed based on these answer keys. Undergrads (n=400, aiming representativeness by gender, migration status, and visible minority status) will be asked to fill in those measures, the College Student Subjective Wellbeing Questionnaire and the DASS-21. Anticipated results: We predict ethnocultural minority students will have lower levels of psychological well-being and higher levels of psychological distress than their Canadian counterparts as mediated by their fitness level with the mainstream academic cultural models of normalcy and deviance. Results can support the development of new on-campus mental health programs.

Keywords: Students, Mental Health, Cultural Models, Ethnocultural Minorities
Research Area: Population Health
Research Method: Mixed Methods

Abstract

The Challenges in Accessing Gender-Affirming Care in Nova Scotia

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Abstract

Introduction. Everyone deserves access to healthcare that supports their well-being and health, especially populations that have been marginalized, including gender-diverse persons. Many determinants of health, including socioeconomic status, geographic location, gender identity, and sexual orientation, contribute to interrelated disparities at the institutional (e.g., lack of competent healthcare), interpersonal (e.g., peer and family relations), and individual levels (e.g., internalized feelings), adding to the burdens this population experiences. Gender-diverse individuals also experience some of the most significant barriers to accessing affirmative healthcare, such as gender-affirming care (GAC). Although Nova Scotia (NS) has recently been identified as having the largest population of gender-diverse persons in Canada, individuals are often unable to access the care they need due to existing barriers. Methods. Qualitative, semi-structured interviews or focus groups will be held with gender-diverse persons who have experiences accessing GAC services in NS. Data will be analyzed using thematic analysis, with help from the qualitative software NVivo11. A key stakeholder from Gender-Affirming Care Nova Scotia will collaborate with the researcher to aid in refining interview questions, supporting the interview process, and facilitating data analysis.
Anticipated Results. Preliminary findings will be presented on the known barriers affecting access to gender-affirming care in NS. Significance. To sufficiently address the accessibility issues to GAC services in NS, it is necessary to critically examine barriers and challenges experienced by the individuals seeking care. Findings are expected to contribute to the literature on accessing culturally competent care for gender-diverse persons and can help inform policymakers on ways they can improve access to GAC services in NS.

Keywords: Gender Identity, Health Services Accessibility, Nova Scotia
Research Area: Health Inequity
Research Method: Qualitative

Abstract

The Power of Health Promotion: Impacting Health Outcomes for Young Black Women and Girls

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Abstract

Introduction: Preventive health and health promotion aid in disease prevention and improved well-being. However, there is a lack of initiatives geared toward young black girls (children & adolescents) in Canada. With the many chronic illnesses disproportionately impacting black communities, further Canadian research must be conducted to understand the barriers impeding black girls from being involved in preventive health strategies such as physical activity and healthy nutrition and bettering their health outcomes through action and education. The proposed research aims to explore the perceptions of black girls related to physical activity and nutrition. Additionally, the research will explore the barriers that black girls from participating in physical activity and practicing healthy eating. Methods: Qualitative research will be utilized to explore the experiences of black girls surrounding physical activity and nutrition. A mix of participatory action research and individual interviews will be suitable for data collection. Schools and community health centres will be utilized as primary recruitment settings. Black girls ages 7-17 will be included in the research eligibility criteria with a targeted sample size of 30 girls. A narrative analysis will be used to analyze the research data to better understand the experiences of participants. Anticipated Results: After collecting this data, the overarching goal is to create and implement a health promotion program that incorporates physical activity and nutrition specifically tailored to the unique health needs of black girls.

Keywords: Health Promotion, Physical Activity, Nutrition, Black Health, Girls
Research Area: Health Inequity
Research Method: Qualitative

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Abstract

Strategies and indicators to address health equity in health service and delivery systems: A scoping review

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Abstract

Introduction: We conducted this scoping review to describe how health service and delivery systems support and define health equity, and to identify implementation strategies and indicators being used to integrate and measure health equity. Methods: This scoping review was conducted in accordance with a JBI methodology and included academic and grey literature sources that described the strategies and indicators that health service and delivery systems in high-income countries have used to integrate and/or measure health equity. Titles and abstracts were assessed (n = 16,309), followed by full text review (n = 836). Extracted information included study design and key findings such as health equity definitions, strategies, frameworks, and integration according to the EPOC taxonomy, and indicators. Results: Of the 122 sources included, 113 were peer-reviewed and non-peer reviewed articles, and nine were grey literature sources. Health equity was inconsistently defined, operationalized, and measured within health service and delivery systems. The use of health equity frameworks was limited with little consistency across studies. Most health equity strategies addressed delivery arrangements and implementation, with little focus on governance and financial arrangements. In addition, most strategies were specific to programs, services, or clinics rather than broadly applied across health service and delivery systems. Conclusions: Our findings suggest that strategies to advance health equity work are siloed within health service and delivery systems and are not currently being implemented system-wide. Indicators for health equity are also variable and inconsistently measured. Health equity integration and measurement needs to be prioritized within and across health service and delivery systems. This is necessary to ensure that an integrated, whole of system approach can be consistently applied in health service and delivery systems internationally.

Keywords: Population Health, Social Determinants of Health, Health Inequity
Research Area: Health Inequity
Research Method: Mixed Methods

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Abstract

Learning Outdoors: An Environmental Scan of New Outdoor Classrooms in Nova Scotia

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Abstract

Introduction: Learning in outdoor environments contributes to children's health and well-being. In early 2021, federal and provincial funding ($7 million) was allocated to Nova Scotian elementary schools to create and enhance outdoor learning spaces. The use of these funds and their effectiveness has yet to be evaluated. Methods: We recently disseminated an online survey to the eight Regional Centres for Education in Nova Scotia (targeting 275 elementary school principals) to evaluate the administration and implementation of the outdoor learning funding. In the survey we asked how the funding was spent, the process behind the implementation, what efforts were made to address equity, diversity, and inclusion, and anticipated outcomes (e.g., frequency of use, learning opportunities, children's physical and social health and well-being). We also requested photos of the outdoor spaces. Anticipated Results: We anticipate that many schools have received the funding but have not yet implemented their spaces due to various constraints, including the COVID-19 pandemic. We also anticipate that many different designs were built, but few have considered diverse perspectives, such as Mi'kmaw and African Nova Scotian ways of knowing, in the design and implementation. Finally, we expect that most schools anticipate positive outcomes for their students with the outdoor space, such as regular weekly use, increased opportunities for learning, and increased children's physical activity. Significance: Findings will highlight how Nova Scotian Elementary schools have used or anticipate using the outdoor learning funding. Knowing what was bought and how the process unfolded allows us to further advance this research and assess the impact of outdoor learning spaces on children's health and well-being and share best practices with other schools.

Keywords: Outdoor Learning, Health, Wellbeing, Children
Research Area: Population Health
Research Method: Mixed Methods

Abstract

Shared-Book Reading in Children with Autism Spectrum Disorders from Minority Language Backgrounds

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Abstract

Introduction: Shared book reading is a key activity that fosters children's language and literacy development (Demir-Lira et al., 2019; Sénéchal & LeFevre, 2003). Shared book reading sessions can be conducted using different types of books: books with text and wordless books. Of interest, recent studies have found that typically developing preschool children produced more words when wordless books (i.e., picture books without text) were used relative to traditional books with text (Chaparro-Moreno et al., 2017). However, there is a lack of studies examining whether book type plays a role during reading sessions for children on the autism spectrum from minority language backgrounds. This study aims to examine whether book type influences the language quantity and quality produced by parents of children on the autism spectrum and whether book type is related to parents' reported self-efficacy during interactive shared book reading. Method: Eight parent–child dyads composed of 4- to 7-year-old children with a confirmed or suspected diagnosis of Autism Spectrum Disorder (ASD), and whose family speaks a minority language (i.e., a language other than English), will be recruited. Each dyad will participate in two sessions: one using a wordless book and another one using a book with text. Parents will also complete a questionnaire about their home reading practices and their perceived self-efficacy during the reading sessions. Anticipated Results and Significance: Results from this study will provide much-needed preliminary data regarding the reading practices of families of children on the spectrum from minority language backgrounds, and insights into whether book type influences parent language quantity and quality during reading sessions. These findings could provide foundational data that can inform parent-led intervention approaches for children with ASD, which could become a component of intervention programs for these children.

Keywords: Autism Spectrum Disorders, Literacy, Minority Languages
Research Area: Population Health
Research Method: Mixed Methods

Abstract

Crossing Paths: Crossing guard perspectives on active school travel: A qualitative study

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Abstract

Title: Crossing Paths: Crossing guard perspectives on active school travel: A qualitative study
Abstract: Active school travel (AST) is any form of human-powered, non-motorized transportation enabling travel to and from school or the bus stop. AST includes walking, biking, scootering, skateboarding, rollerblading, or using a mobility-assisted device. AST is acknowledged as a strategy to increase physical activity and mental health, promote healthy and safe behaviors, and combat climate change. For children, AST can translate positively into promoting physically active and safe routes to and from school. AST requires the involvement of multiple stakeholders and community voices. The importance and role of school crossing guards in supporting and promoting AST are not well known. Methods: This study will explore the experiences of crossing guards working within a 3-kilometer radius of schools in Truro, Nova Scotia, Canada. Guards will participate in one-on-one, semi-structured interviews focusing on their work experiences and perceptions of AST. Qualitative description will be used to analyze the data collected and create themes related to their role in AST.
Anticipated Results: Crossing guards are often undervalued as promoters of active and safe routes to school, despite being on the front lines of ensuring child safety on streets around schools and surrounding areas. Allowing them to share their experiences will provide a unique source of data on AST. Conclusions/Significance: This study will capture the experiences and insights of crossing guards in supporting active and safe routes to school. The findings will be of interest to school communities and policymakers interested in AST.

Keywords: Crossing Guards, Active School Travel, Stakeholders
Research Area: Population Health
Research Method: Qualitative

Evaluation of Recreation Nova Scotia's Rec4MH Training Program

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Abstract

Introduction: Mental health promotion has become a more important factor in our society, and has been increasing in importance in recreation. Recreation Nova Scotia's Rec4MH training program provides recreation practitioners the tools they need to make their environment and space more accessible for people that deal with mental health challenges. This program evaluation will provide a more in-depth perception of the training through the practitioners, while analyzing whether or not the organizations have actually made active changes in their settings.
Methods: With the training already providing a post program survey, data will be collected data using a mixed methods approach by interviewing directors, mangers, support staff and programmers in different organizations to better understand the lasting changes of the program. The group of participants will also be completing my own post program survey, that will be conducted online after the training. Participants will be recruited for interviews after completion of the survey, and from previous training sessions. Anticipated Results: It is anticipated that through the interview and survey process I can evaluate this program and provide concrete feedback to Recreation Nova Scotia. Allowing them to have firsthand responses from participants and organizations with the impact the training provides for them. Conclusion: Recreation Nova Scotia believes that this training is the missing link for how practitioners can provide to those dealing with mental health challenges. This program evaluation will provide a better perspective on what is needed in the recreation context and if the training influences the practitioners in recreation to make the needed changes.

Keywords: Mental Health, Recreation, Evaluation, Practitioners
Research Area: Mental Health/Addiction
Research Method: Mixed Methods

Abstract

The experiences of accessing culturally appropriate foods among Chinese international students in Nova Scotia, Canada

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Abstract

Introduction: Food insecurity is a serious and long-standing public health issue. Two out of every five university students in Canada experience food insecurity due to financial insufficiency. There has been a significant increase in the number of international students studying in Canada (Panza, 2021; Calder et al., 2016), the majority of whom hail from China (Crossman, 2021; Frenette et al., 2020). The prevalence, severity, contributing factors, and lived experience of food insecurity among international students is likely unique compared to domestic students given the barriers to accessing culturally appropriate foods. This research explores the unique experience of accessing culturally appropriate food among Chinese international student in Nova Scotia, Canada. Methods: Ten Chinese international students were conveniently sampled based on specific inclusion criteria: be able to read and write in English, over 19 years old, and have complete at least one year of study in Nova Scotia. Photovoice was the primary research methodology. After participants had taken photographs that represent their experiences, they were interviewed to get their thoughts on food security, considering the impact of the availability of culturally appropriate foods and financial constraints. Data was analyzed using thematic analysis, which was coded into organizing and global themes by using MAXQDA software [VERBI, 1995]. Results/ Significance: Chinese international students were exposed to new foods and cultures, prompting a reconsideration of their relationship with culturally appropriate foods when in Canada. Some participants formed new connections with Canadian culture and food, while also strengthening their bond with culturally appropriate food. The results of this research may inform organizations and institutions that are more responsive to the unique needs of Chinese international students.

Keywords: Cultural Food Insecurity, Chinese International Students, Photovoice
Research Area: Applied Science/Engineering
Research Method: Qualitative

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Abstract

Mental Health of LGBTQ+ People During the COVID-19 Pandemic: A Scoping Review

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Abstract

Introduction: The COVID-19 pandemic has exacerbated existing systemic and social inequities, thereby disproportionately impacting marginalized populations, including people who identify as lesbian, gay, bisexual, transgender, queer, and other sexual and gender minorities (LGBTQ+). Given the magnitude of research that has been published on the pandemic and the potential of psychological consequences among marginalized groups, the purpose of this study was to synthesize and analyze available literature about the mental health of LGBTQ+ people during the COVID-19 pandemic. Methods: This scoping review employed a systematic methodology guided by the Arksey and O'Malley (2005) framework. Six electronic databases were searched in three broad topic areas (i.e., the COVID-19 pandemic, LGBTQ+ people, mental health) during April 2022. The search yielded 4,285 studies, and after screening, 61 studies were included and analyzed using thematic analysis.
Results: LGBTQ+ people's mental health was disproportionately impacted by the pandemic, particularly when compared to heterosexual and cisgender people. Some sub-populations of LGBTQ+ people were impacted more than others, such as bisexual, transgender, non-binary, and gender-diverse people. Depression, anxiety, and stress/distress were the most salient mental health issues, though loneliness, suicidal ideation, self-harm, and COVID-related fears were also prevalent. LGBTQ+ people used substances, social media, dating apps, and pornography to cope with the pandemic.
Significance: To our knowledge, this is the first scoping review to examine the mental health of LGBTQ+ people during the COVID-19 pandemic. These findings allow us to better understand the interactions between the pandemic and the behavioural and health outcomes of LGBTQ+ people, creating an avenue for the development and implementation of policy and health care reform to promote the safety and health of LGBTQ+ people.

Keywords: LGBTQ+, Mental Health, COVID-19
Research Area: Mental Health/Addiction
Research Method: Qualitative

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Abstract

The Impact of Aerobic Exercise on Anthracycline-Induced Inflammation in Breast Cancer Patients

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Abstract

Introduction: Breast cancer is the most diagnosed cancer in women, accounting for 25% of all cancer diagnoses in Canada. Anthracyclines are a type of breast cancer chemotherapy known to increase systemic inflammation. This puts patients at risk of cardiovascular disease (CVD): the leading non-cancer cause of death in breast cancer patients. Aerobic exercise has been shown to decrease systemic inflammation. However, this has yet to be analysed in breast cancer patients receiving anthracyclines. Therefore, the purpose of the present study is to investigate the effect of a 6-month aerobic exercise program on levels of inflammatory cytokines in breast cancer patients receiving anthracyclines. Methods: 21 females with breast cancer scheduled to begin anthracycline treatment took part in EXACT 2.0: a previous study in which 11 completed a 6-month home-based exercise intervention (AEX) and 10 received the standard of care (SOC). A multiplex assay of patient blood samples pre-intervention and post-intervention will be conducted to quantify levels of 37 proinflammatory/anti-inflammatory cytokines. Anticipated Results: The AEX group is expected to have higher levels of anti-inflammatory cytokines and lower levels of proinflammatory cytokines than the SOC group when compared to baseline. This would suggest aerobic exercise as a preventative measure for anthracycline-induced inflammation. Significance: The results of this study could encourage incorporation of aerobic exercise in anthracycline-centred breast cancer treatment. This could provide valuable protection against CVD, increasing long-term breast cancer survival.

Keywords: Cancer, Anthracyclines, Exercise, Cardiotoxicity, Inflammation
Research Area: Kinesiology/Human Movement Science
Research Method: Quantitative

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Abstract

Effects of Handload on Glenohumeral Muscle Coordination During Shoulder Flexion

Abbey Corish [1]
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Abstract

Introduction: Weighted movements of shoulder flexion are important in completing activities of daily living. As people get older and suffer the effects of aging, there is an increased risk of shoulder injury. However, it is important to understand the muscle coordination of healthy shoulders in order to improve assessments of individuals with shoulder injuries. The purpose of this study is to examine how different hand loads affect glenohumeral muscle coordination during shoulder flexion. Purpose: The purpose of this study is to investigate muscle coordination in the shoulder and supporting muscles during shoulder flexion and to determine how it is affected by increasing weight in handloads. Methods: Participants over the age of 50 with no known shoulder injuries will perform maximum flexion without a handload and 90-degree flexion tasks with no handload, 2.5 % body weight handload, and 5% body weight handload. The muscle activation of the anterior, lateral, and posterior deltoids, infraspinatus, supraspinatus, upper and lower trapezius, and the clavicular portion of the pectoralis will be analyzed. Anticipated Results: The expected outcome of this study is that with an increases in handload for the flexion tasks, muscle activation will also increase. It is also predicted that the larger and more dominant muscles will have a larger amplitude of activation. Conclusion: Research analyzing the differences in muscle coordination during shoulder flexion activities with handloads is important as it strongly relates to a person's movements in their Activities of Daily Living. Using participants that have healthy shoulders also helps to provide a baseline for shoulder muscle coordination which can be used when dealing with injured shoulders as there will be a healthy comparison group available.

Keywords: Glenohumeral, Flexion, Handloads, Coordination, Health
Research Area: Kinesiology/Human Movement Science
Research Method: Quantitative

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Abstract

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Abbey Corish [1]
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Abstract

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Keywords: Glenohumeral, Flexion, Handloads, Coordination, Health
Research Area: Kinesiology/Human Movement Science
Research Method: Quantitative

Abstract

3D Validation of DeepLabCut as a Markerless Motion Capture Tool

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Abstract

Introduction: Quantifying human movement is frequently conducted in biomechanics research because, along with applied force data, it is required to estimate joint loads. However, collecting body position data often requires participants to conduct their movements within a controlled laboratory setting, while wearing markers attached to their body. This data collection environment does not have the same ecological validity as collecting the data in the field. Therefore, there remains a need to have a motion capture data collection tool that can quantify human movement outside of the lab. Previous research has shown that machine learning programs such as DeepLabCut (DLC) can collect useful 2D positional data; however, it remains unknown how accurate 3D positions are from DLC. The purpose of this project is to validate the 3D motion-capture capabilities of DLC. Methods: Forty participants will perform six typical human movement patterns that will be recorded by 8 cameras. DLC will then be trained to identify landmarks on the pelvis, thigh, lower leg and foot. Ten additional participants will perform the same movement protocol while wearing passive retroreflective markers and being recorded by both the DLC cameras and a OptiTrack motion capture system. Three-dimensional joint angles of the hip, knee, and ankle will be compared between DLC and the Optitrack system. ICC and Bland-Altman plots will be used to quantify the agreement between the two methods. Anticipated results: Based on previous results, it is hypothesized that the most accurate joint angle estimates will be flexion/extension, followed by ad/abduction and in/external rotations. It is predicted that all DLC 3D joint angles will be within an acceptable error for clinical tools (6º), compared to those measured by Optitrack. Significance: The successful validation of DLC's 3D human movement analysis will expand data collection opportunities within the field of sport biomechanics and ergonomics.

Keywords: AI, Markerless Motion Capture, DeepLabCut
Research Area: Kinesiology/Human Movement Science
Research Method: Quantitative

Abstract

Sudden Accidental Death in a Pediatric Population in Newfoundland and Labrador: An Analysis of Cases of the Office of the Chief Medical Officer

Emily Jane Devereaux [1]
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Abstract

Introduction: Accidental manner of death is known to be a leading cause of death among pediatric populations (Batalis & Collins, 2005; Okoye & Okoye, 2011; Sauvageau & Racette, 2008; Statistics Canada, 2022). Studies dealing with such death are traditionally focused on adult populations with less attention paid to the pediatric population. In the context of Newfoundland and Labrador, no publications have dicussed pediatric accidental death in depth. Methods: A convenience sample of cases of the office of the chief medical examiner of Newfoundland and Labrador (NL) will be utilised. This cohort study will analyse cases of death due to accidental manner of death that occurred in the province between January 1st, 2004 and December 31st, 2013. Those included in the study will be children ages 0 to 21 years of age who died during the study period and whose case was referred to the medical examiner. Results: Analysis of data is ongoing and will describe regional differences and differences among specific causes of death. We hypothesise that the main cause of death in this population will be accidental trauma sustained in a motor vehicle accident with a notable amount of cases occurring among those using recreational vehicles such as snowmobiles or all terrain vehicles. Preliminary results show that the leading cause of death was motor vehicle accidents, accounting for 46% (59/128) of cases. Mean age is 15 years and males made up 71.9% of all cases. In-depth analysis of medical causes of death, cardiac factors and toxicology with significance testing to follow prior to conference presentation. Males represented 74.2% (95/128) of all cases while the mean age of accidental death was 15.8 years and median age of 17.0 years. Incidence rate for males was 16.2 per 100,000 compared to 5.2 per 100,000 in females. Statistical significance was noted between the incidence rates of males and females (X2=27.044, p<0.001). Conclusion/Significance: Results are to be interpreted.

Keywords: Pediatric, Accidental Manner of Death, Emergency Medicine, Forensic Medicine
Research Area: Population Health
Research Method: Quantitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Queering digital connections: Exploring the impacts of technology and the COVID--19 pandemic on older LGBTQ+

Christopher Dietzel [1], Dele Bello [1], Brittany Matchett [1], Jessie Cullum [1], Matthew Numer [1]

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Abstract

Introduction: Many studies that examine how people interact via online platforms, including during the COVID-19 pandemic, have focused on young people. Few studies have examined the experiences of older populations, particularly those who identify as Two-Spirit, lesbian, gay, bisexual, transgender, queer, or other gender and sexual minorities (2SLGBTQ+). Little is known about how older 2SLGBTQ+ adults use technology to make friends, develop relationships, and build community. Older 2SLGBTQ+ adults' socio-sexual interactions have become increasingly important during the pandemic because they report high levels of social isolation and limited in-person interactions because of COVID-related health concerns. The purpose of this study was to analyze available literature on older 2SLGBTQ+ people's use of online platforms during the COVID-19 pandemic. Methods: This scoping review followed Arksey and O'Malley's (2005) framework. The search was conducted in December 2022 across seven databases and yielded 639 studies, which were screened by title, abstract, and a full-text review. All studies that met inclusion criteria were charted, extracted, and synthesized. Thematic analysis was used to identify relevant themes. Results: Seven included articles in this scoping review point to five main themes related to the personal and communal impacts of the pandemic on older LGBTQ+ people's social connections, and the benefits of and barriers to incorporating online technologies into their everyday relationships. Significance: The result of this scoping review provides recommendations on how stakeholders can better serve the socio-sexual needs of older 2SLGBTQ+ adults who use online technologies to connect in the wake of the COVID-19 pandemic and beyond.

Keywords: Older Adults, LGBTQ+, Online Technologies, COVID-19
Research Area: Population Health
Research Method: Qualitative

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Abstract

Identifying and Defining Dimensions for an IBD-Specific PREM

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Abstract

Introduction: Inflammatory bowel disease (IBD) refers to a group of diseases of unknown aetiology that cause inflammation in the gastrointestinal tract. The diagnosis and treatment of IBD requires frequent interactions with the healthcare system. It is therefore critical that healthcare providers who work with IBD patients strive to provide high-quality care. Patient-Reported Experience Measures (PREMs) are standardized questionnaires that are used by healthcare providers and researchers to assess the quality of care a patient has received from their perspective. There are many PREMs that are used in populations of patients with chronic illnesses, but few have been validated for use solely with IBD patients, and most were developed without including patient perspectives in the research process. The current study seeks to explore the lived experiences of IBD patients in the PEI healthcare system through a methodology of one-on-one interviews. The researcher will use thematic analysis to identify the themes that arise from these interviews. It is anticipated that the identified themes can later be used to guide the development of an IBD-specific PREM that considers what is most important to patients from their perspective. Methods: Current patients of the Beck-MacEwen IBD practice (n=6) were recruited to participate in a one-on-one oral interview about their patient journey with IBD. A thematic analysis to identify the themes that arise from these interviews is currently ongoing. Anticipated Results: Based on a review of literature, it is expected that themes related to communication, utilization of healthcare resources, accessibility, coordination of care, treatment plans and dignity will arise from the interviews. Significance: The majority of current PREMs are developed based on healthcare providers' perspectives on high quality care, which may differ from patient perspectives. This indicates that there is a need to develop a PREM that includes patient perspective.

Keywords: Inflammatory Bowel Disease, Patient-Reported Experience Measure, Patient Experience
Research Area: Population Health
Research Method: Qualitative

Experiences of cyberbullying through the presentation of self: Health consequences and needs

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Abstract

Using Goffman's (1959) influential concept of the presentation of self in everyday life, my thesis explores how university students with past cyberbullying experiences define and (re)construct their selves in the virtual world. Cyberbullying is defined as "using information and communication technologies (ICT) to repeatedly and intentionally harm, harass, hurt and/or embarrass a target" (Peter & Petermann, 2018, p. 359). Given that online bullying has become prevalent among adolescents, this project aims to understand how victims of cyberbullying cope with their stress through photo-elicitation and drawing creative visual methods, in addition to traditional interviews. The preliminary results indicate that both victims and bullies represent marginalized communities, including LGBTQ2S members and girls, and are disproportionately at risk of being a target of cyberbullying, which aligns with existing literature (Garaigordobil & Larrain, 2020; Salmon, 2018). Adding to the existing literature, the cyberbullying victims or survivors advocate for the need for formal support in the form of therapy or counseling in middle and high schools in the Canadian prairie regions. Without the needed support, the experiences of online bullying lead to self-harming behaviors or affect them physically and emotionally. Not only does the visual data suggest mental and physical health-related consequences of online bullying, but it also cautions that cyberbullying becoming a 'normal, everyday experience' among youths and that mental health support is as important as physical well-being. It is recommended that cyberbullying prevention/awareness programming as well as mentorship support are needed as early as a middle school for youths' mental and physical well-being.

Keywords: Mental Health Support, Cyberbullying, Youth and Adolescents, Harm
Research Area: Mental Health/Addiction
Research Method: Qualitative

HEALTHY POPULATIONS JOURNAL

Abstract

Child Immigrant Post-Migration Mental Health: A Qualitative Inquiry into Caregivers' Perspectives

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[1] Dalhousie University
[2] Mount Saint Vincent University

Abstract

Introduction: Immigrant families and their children experience isolation and loneliness after migration to Canada. Methods: This study qualitatively explored the perceptions of six Middle Eastern immigrant caregivers about their children's post-migration mental health. This research was situated in the constructivist paradigm, and qualitative descriptive design was used to describe participants' experiences. Six interviews were conducted with three Farsi-speaking and three Arabic-speaking caregivers; and to respond to the research questions, reflexive thematic analysis was performed. Results: Three themes that were developed through the analysis include "parents feel their children are isolated and lonely," "caregivers' limited access to resources contributes to children's mental health," and "connections with other immigrants enhance families' mental health." Results suggest that children's experiences with family separation, exposure to racism at school, and parents' change in marital status contributed to children's loneliness. In addition, children's isolation and loneliness were magnified when caregivers had limited access to resources like income to support their children's transition into Canada. Nonetheless, caregivers identified social support as an asset to their families' mental health. Conclusions: This research highlights the importance of culturally responsive programs and policies in health, employment, and education systems that provide resources for immigrant families to support their children's mental health after migration.

Keywords: Immigrant Children, Immigrant Families, Mental Health, Post-Migration Experiences, Discrimination
Research Area: Health Inequity
Research Method: Qualitative

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JOURNAL

Abstract

A Comparison of Gait Characteristics in Hip OA, Knee OA, and Asymptomatic Individuals

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Abstract

Introduction: Hip and knee osteoarthritis (OA) alter the way people walk, and the influence on walking increases as OA becomes more severe. What is not currently clear is what gait features are altered by hip and/or knee OA, particularly in individuals with mild-moderate OA. The study purpose was to compare spatiotemporal and sagittal plane joint motions between an asymptomatic group of older adults and individuals with hip OA and knee OA to discern differences among the three groups. Methods: Individuals with mild-moderate knee OA (n=83), hip OA (n=35), and asymptomatic older adults (n=64) participated. The OA groups were recruited from orthopaedic clinics and met the American College of Rheumatology criteria for OA diagnosis and functional criterion for moderate OA. All participants provided informed consent. Spatiotemporal characteristics were gathered via the GaitRITE ™ instrumented walkway. Sagittal plane range of motion was calculated using marker trajectories obtained using Qualisys ® motion sensors after participants walked barefoot for 6 minutes on a treadmill. One-way ANOVA models were used to test for significant group differences. Unadjusted alpha Bonferroni adjustments were used for multiple comparisons (alpha=0.05). Results: The knee OA group walked slower with altered spatiotemporal characteristics (decreased single leg support, increased double leg support, decreased swing time, increased stance time) than both hip OA and ASYM groups ($p<0.05$). Both OA groups had reduced knee ROM between peak stance and terminal stance, and reduced hip ROM between initial contact and extension compared to ASYM group ($p<0.05$). Conclusion: People with knee or hip OA walk with similar reductions in motion when compared to asymptomatic older adults; however, people with knee OA have significant changes to their spatiotemporal features.

Keywords: Osteoarthritis, Gait, Velocity
Research Area: Kinesiology/Human Movement Science
Research Method: Quantitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Understanding Family Involvement in Healthcare Provided to Hospitalized Children

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Abstract

Introduction: Once a child is admitted to the hospital it becomes difficult for parents or guardians to care for their child the same way they do at home. This shift in responsibility can make the difficult situation of being in the hospital even more challenging for the children and their families. It may be difficult for these families to also transition back to home life once their child has been discharged from the hospital. Having a better understanding of families' experiences within the hospital will encourage healthcare workers to assist families in their involvement during the child’s hospitalization. Methods: With the assistance of a librarian scientist, a thorough search of the literature will be reviewed by the researcher. The use of CINAHL, PUBMED, and a grey literature search will take place with keywords such as family involvement OR parent involvement OR guardian involvement, pediatric hospitalization, family experiences, and pediatric hospital experiences. The researcher will review appropriate articles and create a systematic review of the information gathered. Anticipated Results: It is expected that the parent’s involvement during hospitalization will improve the stay for the patient and the family. It is anticipated that family involvement will make a transition home easier for the parents, children, and healthcare workers as they assist in the transition. Significance: This research will give healthcare professionals a better understanding of what families experience during hospitalization and will allow them to support the families during this difficult time. The research will also help develop future research as it will identify what aspects of healthcare enhance family involvement and if these aspects can be implemented into practice.

Keywords: Family Involvement, Pediatric Hospitalization, Family Experience, Patient Experience
Research Area: Clinical Research
Research Method: Mixed Methods

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Abstract

Identifying and Addressing the Impacts of the COVID-19 Pandemic on School-based Immunization Programs in the Canada

Allyson Gallant [1]
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Abstract

Introduction: The pandemic has highlighted the importance of keeping up to date on routine vaccinations. School-based immunization programs (SBIP) across Canada, including the Maritimes (Nova Scotia, New Brunswick, and Prince Edward Island), were cancelled in spring 2020, resulting in decreased coverage for many vaccine-preventable diseases. We aim to determine how SBIP in the Maritimes were affected by the pandemic by 1.) describing usual and catch-up SBIP programs; 2.) exploring stakeholders' perceptions of SBIP through interviews; and 3) designing recommendations with stakeholders to address gaps in SBIP and vaccine coverage. Methods: A sequential explanatory study design will be used to address the objectives. First, an environmental scan (ES) will describe changes to SBIP and vaccine coverage between the 2018/2019 and 2022/2023 school years. Findings will inform semi-structured interviews with key stakeholders to explore perceptions of catch-up SBIP and changes in parental vaccine hesitancy during the pandemic. These data will be integrated to design recommendations to support SBIP programs during a stakeholder engagement meeting. Anticipated Results: Analyses will be guided by the behaviour change wheel, a series of complementary tools and frameworks to facilitate behaviour diagnosis and analysis in health research. The ES will highlight variations in SBIP in each province and changes in vaccine coverage. Interviews will highlight how parents/youth, public health and education officials perceive SBIP. Designing recommendations to support SBIP post-COVID-19 with stakeholders will ensure recommendations are applicable to each stakeholder group. Significance: SBIP are essential to equitable childhood health outcomes. Engaging stakeholders in this work can help ensure this work can effectively promote changes in vaccine hesitancy, health services use and health policies, and reduce childhood health inequities in the Maritimes.

Keywords: Vaccine Hesitancy, School Health, Public Health
Research Area: Population Health
Research Method: Mixed Methods

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Changes to School-based Immunization Programs (SBIP) in the Maritimes during COVID-19: An Environmental Scan

Allyson Gallant [1]
[1] Faculty of Health, Dalhousie University, Halifax, NS

Abstract

Introduction: Schools can be an ideal setting for public health initiatives, including SBIP, to support equitable health outcomes in students. SBIP had to adapt as schools switched between in-person and virtual attendance throughout the COVID-19 pandemic. We aimed to identify how SBIP in the Canadian Maritimes were affected by the pandemic, and what catch-up programming were used to reach students who may have missed routine vaccinations. Methods: Data related to SBIP programs and procedures, as well as school closures were collected through grey literature searches and provincial public health stakeholders. Data from 2018/2019 was used to provide baseline details of SBIP programs and vaccine coverage. Data from the 2019/2020- 2021/2022 were used to identify changes to SBIP and catch-up programming offered during school closures and changes to vaccine coverage. Data from 2022/2023 was used to identify any recovering efforts to catch-up remaining students on routine vaccinations. Preliminary Results: Baseline data revealed differences in SBIP procedures in each province, with variations in vaccines administered and the grades offered in. Provinces were meeting meningococcal coverage targets, but fell short for HPV, TDaP and Hepatitis B coverage goals. Preliminary findings identified provincial SBIP catch-up programs relied on summer clinics throughout 2020-2022. Vaccine coverage dropped 2- 10% during this time for most vaccines offered. Significance: SBIP experienced barriers to reaching vaccination targets prior to 2020, which the COVID-19 pandemic exacerbated with school closures and increases in vaccine hesitancy. While some provinces relied on catch-up programs during the summers of 2020-2022, the timing and travel to these programs may have been inaccessible to many students and their parents. SBIP could benefit from updates to service delivery to address pre-existing barriers and new challenges the pandemic has created.

Keywords: Vaccine Public Health, Vaccine Coverage, School Health Programs
Research Area: Population Health
Research Method: Qualitative

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Abstract

Implementation and Evaluation Strategies for the Eat, Sleep, Console Model of Care: A Scoping Review

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Abstract

Introduction: The incidence of infants diagnosed with neonatal abstinence syndrome [NAS] has grown in Canada in the last decade. The complex care needs of this population provide challenges for the already taxed health care system. Currently, an outdated model is used to care for infants with NAS in clinical practice. Challenges exist in using this outdated model and have prompted the shift to a novel approach to care. Although this novel intervention is promising to improve patient and health system outcomes, little is known about how to implement and evaluate this model in practice effectively. Methods: The research question, "How has the Eat, Sleep, Console model been implemented and evaluated in practice?" will guide the completion of a scoping review. We will use the Joanna Briggs Institute Methodology for Scoping Reviews and Arksey and O'Malley's scoping review framework to conduct this review. We will report findings using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for scoping reviews. We will include published and unpublished literature located in systematic searches of diverse databases. Data extraction will be guided by a predetermined data extraction tool. We will conduct a directed content analysis of findings using the COM-B Model of Behaviour and RE-AIM Framework. Anticipated Results: We anticipate findings will provide insight into the successful implementation and evaluation of the ESC model in clinical practice. Significance: Findings from this review will be used to support future implementation and evaluation efforts to improve patient, provider, and health system outcomes.

Keywords: Neonatal Abstinence Syndrome, Implementation Science, Eat, Sleep, Console Model, Evaluation Research, Implementation Strategies
Research Area: Population Health
Research Method: Mixed Methods

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Abstract

Understanding the Perceptions of Caregivers of Racialized Children Living with Disabilities on Community Inclusion

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Abstract

Background: Racialized children living with disabilities may face exclusion from community inclusion. Community inclusion is more than existing within the same geographic area, many families of racialized children with disabilities are physically present in community without being socially included. Purpose: This study will explore the perceptions of caregivers of racialized children living with disabilities on community inclusion. Methods: This study will use a qualitative description approach. We will recruit 6 to 8 caregivers of racialized children (ages 5 to 17 years) living with disabilities in Nova Scotia. We will purposely sample to include diverse perspectives (e.g., age, gender, disability, geographic area). We will conduct in-person semi-structured interviews using pre-prepared questions. The interview questions will aim to understand caregiver's experiences and perceptions of inclusion of their child in their community. Interviews will be analyzed using reflective thematic analysis. Anticipated Results: We anticipate hearing stories of exclusion. We also anticipate that caregivers will describe barriers and enablers to their child's community inclusion. It is expected that the intersectionality of race and disability contributes to lack of community inclusion for racialized children. Significance: There is a lack of race-based data on racialized children living with disabilities in Nova Scotia, particularly as it relates to community inclusion. The findings of this study will illuminate typically underrepresented voices and foster strategies to be developed to promote community inclusion for racialized children with disabilities.

Keywords: Racialized, Children, Disabilities, Community Inclusion, Nova Scotia
Research Area: Health Inequity
Research Method: Qualitative

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Abstract

In home sleep monitoring for diagnosis and management of neurodegenerative diseases

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Abstract

Introduction: Physiological data acquired during sleep (heart rate, movement, etc.) is a valuable metric that can be used towards diagnosis and prevention of neurodegenerative diseases in aging populations, such as Alzheimer's and Dementia. Existing sleep studies involve invasive methods which impair the accuracy of the data obtained. Wearable technologies emerge as a non-invasive method of obtaining long-term physiological data in a manner that is easily integrated into the user's lifestyle. This study employs multiple wearable technologies to obtain a comprehensive dataset on the user's physiological data and movement patterns, which is then implemented in an analysis pipeline. Methods: The wearable technologies are provided to study participants (members of aging populations in the Hamilton and GTA) in the form of a package that can be set up in the user's home. This package is comprised of a smart watch for daily use, and multiple remote sensor beacons that are plugged into each room of the home. Data is collected over approximately four months. Results/Anticipated Results: Anticipated results include the creation of a data analysis model that can identify patterns in sleep and mobility data of users; compare the accuracy of this analysis pipeline to standardized testing methods; and make recommendations for the implementation of this model into neurodegenerative disease management. Conclusions/Significance: The results of this study can support a healthcare team involved in the neurodegenerative disease management of a patient. This assists in the decision-making process and further increases the potential for aging-in-place applications.

Keywords: Neurodegenerative Diseases, Physiological Data, Biomedical Data Analysis, Wearable Technologies, Aging-in-place
Research Area: Applied Science/Engineering
Research Method: Quantitative

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Abstract

PeerOnCall: Exploring how organizational culture shapes implementation of a peer support app for public safety personnel

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Abstract

Introduction: Public safety personnel (PSP) such as firefighters, paramedics, and police are exposed to traumatic situations, which can impact their mental health. Peer support interventions have the potential to decrease mental health stigma and increase treatment-seeking behaviours among PSP. However, little is known regarding how the organizational culture of public safety organizations (PSOs) may deter or encourage the use of a peer-based intervention. This study aims to understand the extent to which organizational culture, including masculinity contest cultures (MCC), within Canadian PSOs affect implementation of PeerOnCall, a new peer support app for PSP. Methods: A multiple case study design was adopted, integrating qualitative and quantitative data from semi-structured interviews and a standardized MCC scale completed with/by organizational champions from three Canadian PSOs. 2-3 champions were selected from each PSO, to reach the targeted sample size of 6-9 participants. Interviews aimed to uncover how champions perceived that organizational culture might shape implementation of PeerOnCall. Interview data was triangulated with MCC scale data to understand the extent to which an MCC exists and is important to consider when implementing. Preliminary Results: Three champions from paramedic (n=1) and police (n=2) organizations have participated thus far. Preliminary analysis of interview data indicates that organizational culture is shaped by workplace pressures, leadership, and current infrastructure for peer support. All champions noted changes over time in openness around mental health, and perceived the MCC norm of "putting work first" as highly reflective of their work environment. Significance: Understanding how organizational culture shapes PSP's interactions with the PeerOnCall app is critical to guide the creation of contextually relevant strategies that optimize implementation and impact of peer support interventions within PSOs.

Keywords: Peer Support, mHealth Apps, Organizational Culture, Public Safety Personnel, Implementation Science
Research Area: Mental Health/Addiction
Research Method: Mixed Methods

Developing a Multilingual Handbook to Address Language Barriers between Healthcare Providers and Indigenous Communities

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Abstract

Introduction: The Northern Ontario School of Medicine (NOSM) focuses on healthcare delivery to northern, remote, and rural Indigenous communities. Language has been identified as a key component of the systemic barriers Indigenous communities face when accessing adequate healthcare. The NOSM first year class has a unique experience, where they spend four weeks building relations within a Northern Ontario Indigenous community. The aim of this study is to take advantage of the wide variety of locations that students are placed, to develop a translational language that has information specific to each community, acknowledging that each community has unique aspects to their own language, dialect, and culture. Methods: With inspiration from the Cree Medical Dictionary, and collaborative input from the wide scope of communities that NOSM students are working with, we hope to develop a translational handbook for all healthcare providers. While on placement, NOSM students will have a worksheet with a list of common healthcare terms that they can inquire about translation into traditional language or use as a general guide to gain information about terms in the local Indigenous languages that are vital to health. Anticipated Results: Development of a working edition of a Northern Ontario Indigenous Multilingual Vocabulary Handbook. As well as feedback from students, healthcare providers and community members to improve the execution of research and the final project. The handbook will have two main subsections: 1.) Directly translated terms from Local Indigenous language to English; 2) Other more abstract terms/concepts relating to health Conclusion: This handbook will work towards improving access to healthcare, preserving Indigenous language, and better preparing healthcare providers entering these communities. The combination of these three attributes will ultimately aim to improve the overall health of these communities from the point of primary care.

Keywords: Indigenous, Language, Healthcare
Research Area: Health Inequity
Research Method: Qualitative

HEALTHY POPULATIONS JOURNAL

Abstract

Hysteria's Descendants in the Diagnostic and Statistical Manual of Mental Disorders

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Abstract

Introduction: Hysteria existed as a medical category from ancient Egypt to the early twentieth century, taking different forms throughout history. Ultimately, hysteria was a wastebasket diagnosis—a catch-all title for poorly understood physical and psychological symptoms experienced by women (Showalter, 1997). Mark S. Micale (1993) has argued that hysteria's disappearance in the 20th century was really a dispersion of hysteria symptoms into new diagnostic titles. Focusing on hysteria's dispersion in the Diagnostic and Statistical Manual of Mental Disorders (DSM), this paper argues that gendered wastebasket diagnoses persist in the DSM and that the DSM approach to diagnostic classification and description continues to perpetuate gender stereotypes. Methods: This study traces diagnoses that are historically, etiologically, and/or symptomatologically descended from hysteria—specifically psychoses, personality disorders, psychosomatic disorders, and neuroses—through each edition of the DSM, from DSM-I (1952) to DSM-5 (2013). The paper highlights sexist perspectives and harmful language in descriptions of these diagnoses, especially language that recalls descriptions of hysteria. Results: The key findings of this study are that gendered wastebasket diagnoses persist in the DSM and that the DSM's current approach to diagnostic classification, which groups mental disorders based on symptoms rather than causes, continues to fail patients who suffer from conditions descended from hysteria. In addition, the language used to describe hysteria's descendants retains sexist stereotypes used to describe hysteria in nineteenth-century medical writing, which indicates that hysteria persists in the DSM yet remains poorly understood. Significance: Conditions that primarily affect women are often understudied, and sexist stereotypes fill gaps in understanding. This study repictures DSM history and offers a new perspective on the shortcomings of diagnostic techniques.

Keywords: Hysteria, DSM, Psychology
Research Area: Mental Health/Addiction
Research Method: Qualitative

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Abstract

Characterizing Cholinergic and Neuropathological Changes in Brain Regions Related to Sleep in Neurodegenerative Disorder

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Abstract

Introduction: Multiple sclerosis (MS), dementia with Lewy bodies (DLB), and Alzheimer's disease (AD) are progressive neurodegenerative diseases (NDDs) often accompanied by sleep disturbance in addition to their cognitive symptoms. The cholinergic system is involved in sleep-wake cycle and and cognition, and it is compromised in these NDDs. Acetylcholine is a cholinergic neurotransmitter that is synthesized by choline acetyltransferase (ChAT) and hydrolyzed by acetylcholinesterase (AChE) and butyrylcholinesterase (BChE). There is significant expression of ChAT, AChE, and BChE in the basal forebrain and brainstem, regions that are involved in the regulation of the sleep-wake cycle. Cholinergic dysregulation is common in NDD brains and appears to play a significant role in cognitive and sleep disturbance, neurodegeneration, and neuroinflammation. The present work is undertaken to investigate contributors to sleep disturbance in MS, DLB, and AD. Methods: Age- and sex-matched formalin-fixed human tissue blocks containing the basal forebrain and brainstem, areas important in sleep regulation, were obtained from MS, DLB, AD, and cognitively normal brains. Tissues were stained using histochemical and immunohistochemical techniques for cholinergic, neuroinflammatory, and neuropathological markers. Stained tissues were analyzed using qualitative and semi-quantitative approaches for regional distribution and relative abundance of cholinergic, inflammatory, and neuropathological biomarkers. Results/Anticipated Results: It is anticipated that significant cholinergic dysfunction, neuroinflammation, and neuropathological aggregates will be observed in the basal forebrain and brainstem of MS, DLB, and AD cases. Conclusions/Significance: This study will add further insight into the contribution of the cholinergic system, neuroinflammation, and neuropathology in sleep/wake disturbances to facilitate better management of this symptom in MS, DLB, AD.

Keywords: Neurodegenerative Disorders, Sleep, Cholinergic System, Neuroinflammation
Research Area: Clinical Research
Research Method: Mixed Methods

Abstract

Tripartite Preparedness and Response During the COVID-19 Pandemic: A First Nations' Perspective

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Abstract

Introduction: First Nations experience a disproportionate burden of illness than is observed in the general Canadian population, especially in the context of viral pandemics (Smallwood et al., 2021). First Nations' health is regulated through a tripartite system that divides responsibility among federal, provincial, and local bodies, often leading to delays in healthcare acquisition and excessive gaps in funding (Smallwood et al., 2021; Craft et al., 2020). This research will attempt to understand what the tripartite response to mitigation and intervention as been for 4 First Nations in Ontario during the COVID-19 pandemic. Methods: Grounded theory and a transformative framework are being used to evaluate the provision of federal, provincial, and local services, supports, and resources during COVID-19. Semi-structured interviews are being used to collect data from 2-3 key informants from each community, and 2-3 pandemic leads from regional pandemic task forces. Interviews will be audio-recorded and transcribed for thematic analysis which will then be collated with results from NVivo software. Anticipated Results: Effective pandemic response will likely be associated with proximity to larger urban centres, a larger population, and road accessibility. Barriers to effective response will likely be associated with access to clean water, food insecurity, overcrowded housing, and a lack of integration of traditional and cultural values. Significance: Supports required for effective pandemic mitigation in First Nations vary dramatically from public health measures in the rest of Ontario, requiring that interdisciplinary approaches incorporating supports across sectors that are centred upon Indigenous prerogatives be implemented. Identified facilitators and barriers to pandemic response that are brought forth from this research will inform government for the advocacy of policy improvement.

Keywords: First Nations, COVID-19, Equity
Research Area: Health Inequity
Research Method: Qualitative

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Abstract

Student Perspectives on Preparation to be Just and Socially-Responsible Providers: A Qualitative Case Study

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Abstract

Introduction: A large focus on social accountability and related concepts within healthcare professions education has been seen over the past approximately 15 years. While many studies currently exist assessing these efforts and objective measures of their effectiveness, a lack of literature has been cited surrounding students' perceptions of their academic preparedness to work on these concepts as future professionals. Methods: Using a qualitative multiple case study design employing semi-structured interviews, students across two institutions were interviewed. Students were from the following programs at three respective institutions (two of which are housed in the same campus and therefore counted as one institution): Bachelor of Science in Nursing, Undergraduate Medicine, Registered Practical Nursing, and Paramedicine. Perspectives are contextualized within the different programs that they are created, paying close attention to variables such as course lengths, practical application of concepts, faculty relations to such topics, hidden curriculum, as well as lived experience and how this contributes to uptake of the curriculum. Preliminary Results: Student perspectives related to how programs, courses, faculty, and experiential learning components all contribute to acquisition of practices that work towards health equity for diverse patient populations has been gleaned. Preliminary analysis has reinforced the findings from the literature and revealed the following interrelated themes: teaching each other, potential to fall through the cracks, a generational divide, hyper-focus on Indigenous exemplars, and more. Significance: Intended outcomes include evaluation of current practices and formulation of guidelines for educating future students in related programs. Ensuring that students are capable and confident in working towards health equity is a major concern for all who encounter the healthcare system and should continuously be improved.

Keywords: Professional Education, Social Responsibility, Health Equity, Nursing, Paramedicine
Research Area: Health Policy/Health Law
Research Method: Qualitative

Inclusion of Naturopaths in Primary Care: A Proposed Solution for the Northern Ontario Health Human Resources Shortage

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Abstract

Introduction: Despite attempts to address health inequities in the predominantly rural region of northern Ontario, the health human resource (HHR) shortage continues to antagonize progress in this area. While often seen as an alternative and entirely complementary approach to healthcare, Naturopathy and its scope in Ontario lends itself well to providing primary health care services– in some areas already proving successful in this endeavour. Given the number of graduates and limited opportunities for practice outside of privately-run clinics that rely heavily on advertising and entrepreneurial initiatives, Naturopathic Doctors (NDs) may prove to be a pool of eager and highly-qualified, educated primary care providers (PCPs) well positioned to fill the current HHR shortage. Methods: Initial findings were gleaned via literature review. Various databases were searched and environmental scans for policy implications were conducted. Policy documents and literature on the current HHR shortage, and previous initiatives to address it were analyzed. Results: Findings indicate that previous attempts to address the shortage fall short in meeting the current need generally, and specifically as it relates to meeting the needs of Indigenous populations. However, the ND scope within Ontario aligns well with other PCP scopes within the province, and given its basis in holistic healing practices that integrate mind, body and spirit, may be well positioned to fill the ever-growing need for PCPs in rural healthcare settings. Conclusion: A comprehensive integration of NDs into primary care within Ontario and possibly other areas of Canada has the potential to address the current need for expanded primary care capacity. Additionally, given the holistic approach of the profession, NDs working in primary care have the potential to increase health equity for all clients, including Indigenous clients given the alignment of epistemologies regarding wellness.

Keywords: Health Policy, Naturopathy, Rural Health, Scope of Practice
Research Area: Health Policy/Health Law
Research Method: Qualitative

Writing Ethical and Rigorous Field Notes in Research with Vulnerable Populations

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Abstract

Introduction: When implemented effectively, field notes capture contextual data in ways that deepen audio/visual documentation of field research. However, emerging researchers often have limited guidance on how to take field notes, leading to missed opportunities for enriching data collection. Drawing from an ongoing qualitative health study, this presentation demonstrates strategies and resources for improving the quality of field notes, recognizing complex standards of ethical conduct and rigour. Methods: Primary Health Care for People with Dementia: Exploring Care Provided by Collaborative Family Practice Teams, is a phenomenological case study involving three separate interviews. Each interview is conducted by the primary investigator (PI) with a research assistant (RA) taking field notes. In order to write field notes effectively, it is vital to understand the role of field notes in research, and potential challenges that may come up in field work. To facilitate this learning, a four-step approach was taken. 1 – Review of theory and tools; 2 – Structured observations; 3 – Practice interviews and 4 – Post-interview reflections. Results: By providing thorough preparation and mentorship, both RAs involved in the project developed the necessary skills to complete field notes with sensitivity and enough breadth and depth to adequately relay contextual interview data. This was demonstrated by comparing field note quality between initial note-taking exercises and final in-person practice interviews. Significance: This discussion provides an account of various strategies used to develop ethical and rigorous field notes with an emphasis on their strengths and weaknesses as well as recommendations for how other qualitative health researchers can implement these strategies to improve data collection skills.

Keywords: Qualitative Field Notes, Research Training, Research with Vulnerable Populations
Research Area: Population Health
Research Method: Qualitative

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Abstract

Unmet healthcare needs and barriers to continuity of care for people experiencing homelessness: A mixed-methods study

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Abstract

Introduction: Homelessness is a complex and rapidly growing issue in the Halifax Regional Municipality and across Canada. People experiencing homelessness (PEH) are less likely to have continuity of care after an ED visit resulting in unmet healthcare needs and these place a significant burden on the emergency department (ED). Methods: This mixed-methods research will examine ED use patterns of PEH (identified as no fixed address in ED records) to age, gender and triage acuity scale propensity score matching non-PEH (with a fixed address) to investigate ED use patterns. Informed by these patterns of prominent chief complaints, having a primary care provider and repeat visits within 12 months, qualitative interviews with PEH will be conducted, to explore unmet healthcare needs and barriers to continuity of care for these health complaints and conditions requiring repeat visits using a patient-oriented research framework. We plan to disseminate findings in a stakeholder focus group setting that includes PEH as partners in the research process. Results: Initial PEH stakeholder engagement identified barriers to (a) shelter-based primary needs, (b) making and presenting to appointments and (c) experiencing stigma in accessing healthcare. PEH was noted to have co-morbidities due to an interplay of mental health, addiction, and other serious injuries. Preliminary analysis showed that PEH in ED compared to non-PEH are more likely to have repeat visits within 12 months (81.6% vs. 49.9%), and not to have a family physician (2.2% vs. 3.8%). The three most common chief complaints for PEH are mental health (15.4%), injury (10.4%) and chest pain (3.4%). Conclusions/Significance: The findings of this patient-oriented research with PEH engagement will contribute to the understanding of unmet healthcare needs, barriers, and incentives for high-priority health conditions requiring ED visits. The recommendations will aim at program development and policymaking.

Keywords: Ill-Housed Persons, Vulnerable Populations, Health Services, Population Health, Health Inequities
Research Area: Health Inequity
Research Method: Mixed Methods

Abstract

Creating an Evaluation for a Self-Management Transition of Care Program at IWK Health

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Abstract

Background: Transition of care is the process in which youth transfer their health care from pediatric to adult health care systems. Currently, there is very little done to standardize transition of care, which can result in poor health outcomes for youth. Families transitioning from pediatric to adult care require support to encourage independence and confidence in their youth to take control of their own care. The You're in Charge (YIC) program at IWK Health builds self-management capacity among youth and their families through goal setting, education, and peer-led activities. However, there is a need to develop an ongoing evaluation toolkit for the YIC program to evaluate its utility and impact. Methods: The objective of the study was to co-design an evaluation toolkit for the IWK Health's YIC Program. We used the RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance) Framework as an overarching evaluation framework. A co-design workshop was held with the YIC coordinator, Transition of Care (TOC) coordinator and members of the TOC Committee (youth, parents, and health care providers) to co-design components of the evaluation toolkit. This was followed by a think-aloud exercise with four YIC participants (2 youth, 2 parents/caregivers) to test the usability of the evaluation. Results: A toolkit was delivered for the YIC program to use for on-going evaluation, an evaluation was created for youth and caregiver participants, facilitators, and administration. Areas of focus for the evaluation were self-management goals, skills, and trust in the resources provided to them. Conclusion: This study provided a valuable resource for continued use beyond the project end date. By working in a collaborative research approach with the YIC Program Coordinator and TOC Committee, the evaluation tool was more relevant and useful to meet the needs of the IWK Health team to use for ongoing evaluation and sustainability of the program.

Keywords: Transitions of Care, Self Management Program, Evaluation
Research Area: Population Health
Research Method: Quantitative

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Abstract

Spot the difference: Recognizing risks for cancer in the experiences of normal aging

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Abstract

Introduction: Endometrial cancer (EC) is the most commonly diagnosed gynecologic cancer in the developed world. When detected early, while the cancer is confined to the uterus, EC can be cured by hysterectomy. On the other hand, patients diagnosed at an advanced stage can expect a 20% 5-year survival rate, emphasizing the need for early detection. There are also known racial and socio-demographic disparities in EC research. Women of South Asian and Black ethnicity, as well as older women, make up a substantial proportion of women diagnosed with EC, yet they remain underrepresented in research. We adopted a community-based approach to capture the experiences of diverse women in British Columbia (BC) experiencing reproductive aging or who have faced an EC diagnosis, to identify gaps in knowledge in EC-associated risk factors and the recognition of early symptoms of EC. Methods: We used a systematic review, qualitative interviews, and a workshop to investigate the gaps in knowledge of EC symptoms and risk factors. Findings from the systematic review informed the semi-structured interviews, in which we learned about experiences of perimenopause and EC diagnosis of diverse women in BC, and some of the gaps in knowledge around menstruation, early signs of cancer, and delays in accessing care. In the workshop, knowledge of EC risk factors and symptoms was further discussed, and participants were asked to prioritize the suggested solutions. Preliminary Results: Preliminary results from the interviews revealed similar themes to those found in the systematic review, including a lack of knowledge regarding EC symptoms and risk factors and delays in reporting symptoms of EC. Workshop participants ranked information resources for EC symptoms and risk factors as a top priority initiative. Significance: Raising awareness about risk factors and symptoms of EC and engaging with women approaching menopause can increase vigilance and prompt lifestyle changes to attenuate EC risk.

Keywords: Endometrial Neoplasms, Perimenopause, Symptom and Risk Factor Recognition
Research Area: Population Health
Research Method: Qualitative

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Abstract

Machine learning to build a prediction model for lung cancer in never smokers using population-based databases

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Abstract

Introduction: Worldwide, lung cancer (LC) is a commonly diagnosed and deadly cancer. While smoking causes LC, LC is also frequently diagnosed in never smokers. The proportion of never smokers among LC cases is increasing. Currently, never smokers are ineligible for LC screening, as no successful prediction model for LC in never smokers (LCNS) has been developed. Machine learning (ML) opens new opportunities and might be advantageous to conventional (investigator-based) approaches in predicting LCNS. Our aim is to develop and validate an investigator-based model and an ML-based model using two population-based cohort databases from Canada and the UK and compare their prognostic characteristics (discrimination and calibration) in identifying high-risk individuals for LCNS. Methods: We will utilize two databases – the Canadian Partnership for Tomorrow's Health for internal validation and the UK Biobank for external validation – totalling over 800,000 participants. In the investigator-based method, predictors will be pre-specified through a literature review, including sociodemographic, behavioural, environmental, geospatial, and genetic characteristics. In the ML-based model, we will use the super learner ensemble algorithm, due to its ability to simultaneously perform and combine results from multiple ML algorithms (e.g., decision trees, artificial neural network, random forest, extreme gradient boosting) to predict the outcome. Anticipated Results: We hypothesize that a supervised machine learning-based model will outperform an investigator-driven model in predicting the outcome and identifying important predictors for LCNS. Significance: The model findings will contribute to a better understanding of risk factors for LCNS and generate new knowledge to improve early detection of LCNS eventually to reduce morbidity and mortality of LCNS.

Keywords: Lung Cancer, Non Smokers, Prediction Modeling, CanPath, UK Biobank
Research Area: Population Health
Research Method: Quantitative

An examination of the risk factors that lead to cardiovascular disease development in the global South Asian diaspora

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Abstract

Introduction: South Asian populations experience high rates of cardiovascular disease estimated at 5 to 10%, in contrast to 1.2% for White populations (Tharmaratnam et al., 2018). South Asians use high temperature cooking in preparation of cultural foods—such as butter chicken, naan, Balochi aloo—which release neo-formed contaminants that increase one's risk for coronary heart disease (Kakde et al., 2017). As well, these individuals have a higher percent body fat, greater visceral abdominal fat, increased insulin resistance, despite having body mass indices within a conventionally "normal" range (Rana et al., 2014). Methods: We conducted a systematic review of the literature to identify both non-modifiable contextual factors, such as colonization, and modifiable factors, such as the role of diet, food preparatory methods, and lifestyle, in the development of cardiovascular disease in the global South Asian diaspora. Results/Anticipated Results: We found that colonization-induced famines experienced by South Asians in the 18th and 19th centuries has resulted in lasting effects on the cardiovascular health of the global South Asian diaspora. As well, modifiable risk factors such as the use of high heat food preparatory methods and inadequate physical activity contribute to the development of cardiovascular disease in this population. Conclusions/Significance: Overall, South Asians represent a vast proportion of the global population—at an estimate of 2 billion people—and they experience cardiovascular disease at a significantly higher rate than the general population (Volgman et al., 2018). Taken together, cardiovascular disease in this population creates a tremendous burden on global healthcare systems. Thus, recommendations towards decreasing the impacts of modifiable risk factors should be implemented (e.g., physician prescribed physical activity).

Keywords: Cardiovascular Disease, South Asian Populations, Diet, Colonialism, Exercise
Research Area: Health Inequity
Research Method: Qualitative

Abstract

Preliminary reflections on Indigenous men and boys' wellbeing and sexual health from land-based learning

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Abstract

Introduction: Gender plays a role in the wellbeing of Indigenous people. Much research has focused on Indigenous women, whereas the interaction between masculinity and Indigenous wellbeing has been less explored. In partnership with two Indigenous organisations, Healing our Nations and the Mi'kmaw Native Friendship Centre, this community-based research project uses the Two-Eyed-Seeing approach and Land-Based Learning to identify facilitators and barriers to the wellbeing of Indigenous men and boys. Methods: Participants who self-identify as Indigenous men and/or Two-Spirit were recruited through our partner organisations to participate in cultural events. Qualitative data—including participant observation, semi-structured interviews, journal entries, and group discussions—was gathered at these events and transcribed. Transcripts were coded by two researchers using NVivo and subjected to thematic analysis. Results: Data collection is ongoing. To date, one multi-day gathering and two single-day events have been held, with 12 participants. Cultivating a healthy Indigenous male identity—with qualities such as being a caring provider and emotionally literate—gives Indigenous boys and men direction to lead good lives and build quality relationships. Connection to ancestral languages, participation in positive Indigenous communities, and engaging with nature were all identified as facilitators to wellbeing within the context of colonisation. Significance: The next steps in this project are to further explore the relationships between masculinity, romantic relationships, sexual health, and overall wellbeing. The results will inform the development of health and community services.

Keywords: Indigenous Health, Masculinity, Land-Based Learning
Research Area: Health Inequity
Research Method: Qualitative

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Abstract

Certifying Deaths Due to COVID-19: Understanding the Canadian Context

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Abstract

Introduction: Death certificates are important medico-legal documents that are significant not only to the families of the deceased, but to public health. Death certificates generate important data which helps us to understand the impact of a given disease and guides public health action. Historically the error rate in death certification is significant and clinicians are not adequately trained in death certification. Errors can lead to misguided public health action and can mask health inequities. In the COVID-19 pandemic the importance of accurate death certification is crucial to our understanding of the disease and to informing public health policy. To date there is very limited research globally on death certification practices in COVID-19, and very little research on the Canadian context. Methods: 14 participants from across Canada, including key stakeholders in their field of death certification and clinicians, participated in semi structured interviews. Interviews explored their experiences and perceptions of certifying deaths in the context of the COVID-19 pandemic. Data collected in these interviews will be analyzed using Grounded Theory to identify key themes. Anticipated Results: Preliminary findings from interviews show there is a perceived lack of clear guidelines and policies for certifying deaths due to COVID-19 in Canada and a wide variance in practice. Significance: This study aims to contribute to our understanding of the practice of certifying deaths due to COVID-19, and to inform policy makers and clinicians for the purpose of improving death certification practices and our understanding of the impact of COVID-19.

Keywords: COVID-19, Death Certification, Vital Statistics
Research Area: Population Health
Research Method: Qualitative

Abstract

How does a loose parts intervention in the outdoor play space, afford movement and physical activity behaviours?

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Abstract

Introduction: Unstructured, self-directed play is essential to children's health as it contributes to their physical, cognitive, and social-emotional development. One way to enhance outdoor play is through the integration of loose parts (LP) in outdoor play space (OPS). LP are materials that can be manipulated and combined in various ways. The open-endedness of LP play allows children to move their body in different ways encouraging gross motor development, balance, and coordination, all which affords children the opportunity to be more physically active.
Purpose: The purpose of this project is to explore how the introduction of LP materials into OPS affords movement and physical activity behaviours in children attending after-school programs in Nova Scotia. Methods: Using a quasi-experimental, case study design, LP materials were integrated in the OPS of two after-school programs. Behavioural mapping, a method used to observe and record behaviours occurring in a particular setting at a particular time, was used to collect data across diverse OPS environments. Children's movement behaviours and physical activity intensities were observed and recorded, comparing the observations pre and post implementation of the intervention. Anticipated results: Preliminary findings from our previous work (PLEY project) demonstrates that children can extend their play through LP materials allowing them to master and diversity their movements skills by using a combination of movements together. Similar findings are expected for this project. Conclusions: This project will be a critical step to understanding how we can support quality outdoor play experiences for children while optimizing their overall health and wellness.

Keywords: Physical Activity, Movement, Outdoor Play, Loose parts
Research Area: Kinesiology/Human Movement Science
Research Method: Quantitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Social prescription in dentistry: The perspective of community partners

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Abstract

Background: Social prescription is an inventive collaborative approach by which dentists connect patients to local community organizations to provide them with non-medical services that would contribute to their well-being. As social prescription would involve partnerships between dentists and community organizations, for this scheme to succeed, it is essential to understand the perspectives of community organizations. Objective: To understand how community organizations perceive social prescription and its implementation in partnership with dentists. Methodology: Following a purposeful, maximum variation sampling, 12 Montreal-based community organizations were selected. Semi-structured interviews with key informants of these organizations were conducted. Data from interviews were analyzed using thematic analysis. Results: Participants perceived social prescription as an innovative approach to improve patients' health by tackling their social determinants of health. It would empower patients to take control of their health and promote equity. Discussion, accompaniment, and follow-up were three important pillars of social prescription. Participants expressed the desire to work with dentists following principles of mutual dialogue, consensus building, democratic decision-making, and a bilateral referral process. Unfortunately, they also perceived several barriers to its implementation. They believed that dentists do not explore patients' social problems due to lack of time, lack of sensitivity to people's social needs, and social distance. Participants shared challenges experienced by community organizations: insufficient budgets, employees overworked and underpaid, resulting in a high staff turnover, and thus difficulty in providing quality services to people referred by dentists. Conclusion: The perspectives of community organizations on social prescription should be heard before implementing this approach in dental clinics.

Keywords: Social prescription, Dentists, Community organizations
Research Area: Population Health
Research Method: Qualitative

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Abstract

Psychotropic prescription drug use during the COVID-19 pandemic: A scoping review

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Abstract

Introduction: There has been a negative impact on mental health due to the COVID-19 pandemic. This scoping review aims to assess and synthesize research-based evidence on psychotropic drug dispensing/prescription patterns before and during the COVID-19 pandemic, as well as to identify knowledge gaps in the field. Methods: PUBMED, EMBASE, PsycInfo, and SCOPUS were searched for publications that reported psychotropic medication prescribing patterns that were published in 2019 and after. The first phase of data extraction is ongoing and includes organizing papers by country, demographics, psychotropic medication type, and study design for preliminary analysis. This abstract includes a summary of the evidence related to Canada. Results: Of the 61 studies that met the inclusion criteria, there were 8 Canadian studies. Females and those aged > 40 showed an increase in antidepressant and antipsychotic usage. There was a decline in anxiolytic and hypnotic-sedative prescribing for both sexes and children, but an increase in those aged > 80. Nursing home residents in Ontario saw an increase in antipsychotic, antidepressant, and benzodiazepine prescriptions. Conclusions: The pandemic disproportionally affected females and seniors. For seniors, long periods of social isolation due to infection prevention measures may have resulted in decreased mental health status. For women, increase in childcare duties, work and home-schooling as well as pregnancy during the pandemic may have resulted in decreased mental health status. Future public health policy should therefore acknowledge age and sex disparities during pandemics and aim to create interventions that address issues specific to demographic categories.

Keywords: Psychotropic drugs, Prescriptions, Dispensing, COVID-19, Pandemic
Research Area: Health Policy/Health Law
Research Method: Qualitative

Abstract

The process of student engagement in school health promotion: A scoping review

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Abstract

Introduction: Schools are an essential setting to influence the health and well-being of students. Health Promoting Schools (HPS) is a whole-school approach that strengthens and builds a safe and healthy school environment for students to learn and develop. A core component of HPS is the engagement of students. Despite promising outcomes arising from student participation in school health promotion, there is less known on the process of how they are involved. This scoping review aimed to map and characterize the different components of the student engagement process in school health promotion. Methods: We followed scoping review guidelines employed by the Joanna Briggs Institute and the Arksey and O'Malley's framework. The Participant, Concept and Context (PCC) mnemonic was used to develop eligibility criteria. Databases searched included: CINAHL, ERIC, MEDLINE, Scopus, ProQuest Dissertations & Theses Global databases, and Google Scholar. Organizational websites and sources identified by experts were also reviewed. Two reviewers screened the title, abstract and full text of the sourced articles. Results/Anticipated Results: We included 46 primary sources that described the process of youth engagement in school health promotion. Most sources were primary studies (n = 32) with qualitative methods applied (n = 26), and the majority being from European countries (n = 25). We are in the process of charting and conducting thematic analysis to understand different forms of HPS programs, initiatives and activities youth are involved in, as well as the initiators and barriers for engagement. Conclusions/Significance: This scoping review maps the evidence on the process of student engagement in school health promotion. This review will help to further understand what strategies, and form of participation are used to engage students in school health promotion.

Keywords: School Health Promotion, Youth Engagement, Population Health
Research Area: Population Health
Research Method: Qualitative

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Abstract

Assessing Support for Healthy Eating Policies for Chronic Disease Prevention in Rural Newfoundland and Labrador

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Abstract

Introduction: A large proportion of Newfoundland and Labrador's (NL) population resides in rural areas, and is unfairly impacted by socioeconomic limitations relating to healthy eating, consequently increasing their risk of diet-related chronic diseases. Healthy policies are foundational for creating healthy food environments, and general public support is significant for effective policy action. Therefore, this study aims to evaluate and compare rural vs. urban public support for healthy eating policies in NL. Methods: This cross-sectional study was conducted using the Chronic Disease Prevention Survey, and recruited members of the NL general public who were 19 years or older via paid social media advertisements. Participants ranked their support for each healthy eating policy option on a Likert scale measuring support vs. opposition. Analysis for rural vs. urban support will be completed using Pearson's $\chi 2$ test at the $\alpha=0\cdot05$ level of significance. The Nuffield Council on Bioethics' Intervention Ladder Framework will be used to interpret the results. Anticipated Results: Of the 1200 participants who completed the survey, demographic data demonstrates almost equal rural vs. urban population distribution (49.8% vs. 50.2%). Rural vs. urban support is yet to be analyzed. Significance: Healthy eating policy support research is crucial to improve the rural food environment in NL. This project will produce foundational knowledge of healthy eating policy support from the rural vs. urban public perspective in NL, which may be used as evidence to implement nutrition-related policy action to improve rural health or to advance the knowledge about healthy eating policy support within the province.

Keywords: Rural health, Healthy eating policies, Policy support, Chronic disease prevention, Nuffield intervention ladder
Research Area: Health Policy/Health Law
Research Method: Quantitative

Abstract

Using Twitter to Understand the Effects of the Cameroon Anglophone Crisis on Social Determinants of Health

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Abstract

Introduction: In recent years, increased social media use has allowed for the collection of public health data in regions of war where it is normally difficult to obtain information. The Cameroon Anglophone Crisis is an ongoing conflict that is rooted in profound political, social, and cultural tensions between the Anglophone and Francophone regions. Amidst the conflict, Twitter has emerged as a platform for communicating updates and catastrophic effects of the crisis in Cameroon. Using Twitter data, we aimed to explore the impact of the Anglophone Crisis on the social determinants of health in Cameroon. Methods: In this study, we used Twitter, a public social media platform, as a source of data to identify and analyze the functions of tweets related to social determinants of health and the crisis. Following, a content analysis was performed on relevant tweets to elucidate salient patterns and emerging themes on Twitter. Results: Our findings revealed that Twitter was being used to share information and to call for action. Analysis of tweets revealed eight distinct themes that illustrated the impact of the crisis on the social determinants of health including neglect from the government, education, job loss, increased poverty, housing and homelessness, social exclusion and oppression, women and gender inequality, and health services. Conclusions/Significance: This study provides insight into the profound impact of the Anglophone Crisis on public health in Cameroon and demonstrates the potential benefits of using social media for gathering information about public health in crisis situations.

Keywords: Public health systems research, Twitter and crisis, social media and health, violence and impacts on health,
Research Area: Population Health
Research Method: Qualitative

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JOURNAL

Abstract

Investigating Myofascial Release Technique in Reducing Post-Concussion Syndrome Symptoms

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Abstract

Introduction: Concussion is the most common acute neurological condition induced by biomechanical forces to the head, neck, or body (1). Emerging evidence suggests some individuals who have experienced a concussion can have long-term health consequences such as cognitive impairments and mental health illness (3), often referred to as post-concussion syndrome (PCS) (4). If PCS is not managed properly or if a person experiences multiple concussions, severe health consequences can arise, such as suicide risks, neurodegenerative disease, and death (5). Currently, no standardized protocols for diagnosing and treating concussion or PCS exists (6). However, an underlying factor in rehab is to mitigate symptoms. A common clinical application of the Myofascial release technique (MRT) is used to treat musculoskeletal injuries and improve circulation (7); although it is unknown if MRT can relieve PCS symptoms. Purpose: This study aims to investigate the use of MRT in alleviating PCS symptoms, specifically anxiety and depression. Methods: This is a retrospective cohort study of 100 participants from the Myoworx Physiotherapy clinic in Ontario, Canada. Anticipated Results: The first hypothesis is that individuals with PCS will improve using MRT rehabilitation. The second hypothesis states that individuals with multiple concussion histories may recover slower than those with single concussion history. Conclusions: This study will benefit sports science rehabilitation and public health care regardless of the outcome. Furthermore, this finding may shed light on clinicians to bring insights into effective rehabilitation approaches.

Keywords: Concussion, Post-concussion syndrome, Myofascial release technique, Musculoskeletal injury
Research Area: Clinical Research
Research Method: Quantitative

The response to unexpected walking surface translations during gait in individuals with knee OA: Support moment analysis

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Abstract

Introduction: Walking can be a challenge for older adults, especially those with knee osteoarthritis. Surface translations (perturbations) while walking can be used to simulate an unpredictable environment, and challenge individuals to maintain joint function. The study's purpose is to determine how individuals respond to a 3cm medial perturbation (3MP), characterized by the response of the lower limb. Methods: Thirty-five individuals with moderate knee OA (MKOA) and 35 asymptomatic older adults (ASYM) were recruited and provided informed consent. Individuals walked barefoot on a dual belt instrumented treadmill and underwent 24 unexpected medial and lateral perturbations during gait. Skin surface marker trajectories obtained using Qualisys ® motion sensors, ground reaction forces and anthropometrics were used to calculate sagittal plane moments using inverse dynamics. The peak support moment (SM) and percent hip, knee, and ankle contributions were calculated and averaged for the three strides pre-3MP (T0) and for the first stride post-3MP (T1). Independent and dependent t-tests determined between and within group differences respectively in the SM and contributions, using a Bonferroni corrected alpha ($\alpha=0.017$).
Results: For both groups the SM increased at T1 compared to T0 ($p<0.017$). Percent contributions to total SM increased for the ankle and decreased for the knee at T1 compared to T0 in ASYM ($p<0.017$) with no change in hip contribution ($p>0.017$). No change in any percent contributions were found in MKOA ($p>0.017$). No group differences were found in SM or percent contributions. Conclusions/Significance: Findings support that both groups require more support to maintain walking immediately after experiencing a 3MP. The ASYM reorganized their SM contributions in response to the 3MP whereas the MKOA maintained their strategy regardless of the walking challenge suggesting an adopted strategy to increase support may be used under normal walking conditions in MKOA.

Keywords: Osteoarthritis, Perturbation, Gait analysis
Research Area: Population Health
Research Method: Quantitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Role of Medical Students as Interpreters in Bridging the Language Barrier in Healthcare Centres: A Scoping Review

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Abstract

Introduction: Linguistic concordance between the healthcare provider and the patient is critical to provide quality healthcare. Professional interpretation can be expensive and challenging to access. This scoping review aimed to explore the evidence on the role and education of medical students as interpreters in caring for patients with limited language proficiency (LLP), and to determine the benefits and risks associated with this practice. Methods: A scoping review was conducted with articles obtained from a systematic search of six databases in 01/2022. All publications discussing the use of medical students as interpreters in healthcare settings were included. Thirteen documents were selected and analyzed using Covidence, with coding by two raters and regular team discussions. A thematic analysis framework was used. Results: Multilingual medical students are frequently asked to interpret in healthcare settings. This was found to be advantageous in reducing communication barriers, improving quality of care, and contributing to students' clinical experience. Concerns were raised regarding the lack of knowledge on the professional obligations of the interpreter role. Interpretation training programs for medical students have now been implemented at select academic healthcare centres and demonstrated successful results in providing care to LLP patients. Conclusions: Medical students play an important role in addressing language barriers in healthcare institutions when serving LLP patients, by combining their unique role in the healthcare team with their medical, linguistic, and cultural competency skills. This review opens a discussion on the opportunities in medical education to promote the delivery of language-concordant care, including the exploration of interpretation training for multilingual students.

Keywords: Medical Education, Communication Barriers, Health Policy
Research Area: Health Policy/Health Law
Research Method: Qualitative

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Abstract

Risky Play for Children with Physical Disabilities within Atlantic Canada from the Perspective of their Caregivers

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Abstract

Background: Engaging in risk during play allows children to accumulate physical activity, enhance movement skills, build confidence, and develop resiliency. All children have the right to play, however children with physical disabilities (CWPD) have fewer opportunities and experience more barriers to risky play. Caregivers are gatekeepers to children's risky play; however, little is known about caregivers of CWPDs perspectives on risky play. Using a socioecological framework, this study explores caregiver's perspectives on risky play, their definitions and characterizations of risky play, and factors they believe influence their child's risky play behaviours. Methods: This study will use a qualitative description approach. We will recruit caregivers (n=8-10) of CWPD (ages 8-13 years) whose child attends IWK Kids Rehab, which serves children from across Atlantic Canada. We will conduct semi-structured, one-on-one interviews. Data will be analyzed using reflexive thematic analysis, adapted by Braun and Clarke. Anticipated Results: Findings from this study will extend previous literature by identifying that caregivers of CWPD value risky play opportunities for their child, yet face significant barriers (e.g., fear around their child's safety, stigma associated with CWPD engaging in risk, physical environments not conducive to play, policies not encouraging risky play for CWPD). It is expected that caregivers will provide unique perspectives on what risky play entails for CWPD. Caregivers may also provide examples of how their child could be better supported to engage in risky play. Significance: By identifying unique caregiver perspectives, definitions, and factors influencing risky play of CWPD through a socioecological model lens, findings will support opportunities for CWPD to engage in risky play. Our team plans to craft new definitions and characteristics of risky play that can be utilized to make risky play more inclusive for CWPD.

Keywords: Risky Play, Disability, Child, Caregiver
Research Area: Kinesiology/Human Movement Science
Research Method: Qualitative

A Review of Current Barriers to the Implementation & Expansion of Opioid Agonist Treatment Policies in Canada

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Abstract

Introduction: Opioid agonist treatment (OAT) is an evidence-based approach to treating individuals with opioid use disorders (OUDs) and effectively reduces the risk of multiple forms of opioid-use-related harm in patients (Irvine et al., 2019; Socias et al., 2020). Evidence shows that the patients suffering from OUDs who are participating in OAT are far less likely to experience opioid overdose and death from opioid overdose than those who are not participating in OAT (Irvine et al., 2019; Pearce et al., 2020; Santo et al., 2021). Methods: The proposed study is a qualitative systematic review of literature regarding barriers to implementation and expansion of OAT programs in Canadian provinces and communities. The review aims to contextualize the factors influencing OAT policy so they may be addressed in future initiatives to support OAT. Anticipated Results: Current literature identifies numerous barriers to implementing and expanding OAT programs in Canada (Eibl et al., 2017; Pijl et al., 2022). These include geographical rurality, stigma towards people who use drugs (PWUD), shortages of physicians who are certified and comfortable with providing OAT, as well as a lack of funding and political motivation towards these initiatives (Eibl et al., 2017; Pijl et al., 2022). Conclusions: As a result of numerous barriers to implementing and expanding OAT options, many patients with OUDs may not be able to access this necessary and life-saving treatment (Eibl et al., 2017; Pijl et al., 2022). The current review aims to compile information that can be used to inform the development, improvement, and expansion of OAT programs and policies in the context of these barriers.

Keywords: Health Services Accessibility, Opiate Substitution Treatment, Policy, Opioid-Related Disorders, Social Stigma
Research Area: Mental Health/Addiction
Research Method: Qualitative

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Abstract

“We talk teeth”: Exploring Faculty EDIA (Equity, Diversity, Inclusivity and Access) Capacity in Dental Education

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Abstract

Introduction: There are increasing concerns regarding inequitable educational access and experiences for underrepresented populations in health education, prompting dental faculties to recognize EDIA (Equity, Diversity, Inclusivity and Access) capacity as a strategic priority. Faculty members contribute to the establishment and reinforcement of institutionally engrained norms within learning settings with significant influence on the experience of students. Currently, there is limited literature on faculty EDIA capacity within dental education and minimal evidence to inform barriers to development. This study sought to explore how dental faculty members perceive their personal and institutional EDIA capacity and to identify current strengths and weaknesses of EDIA development within the institution of study and dental education. Methods: Using a hermeneutic study design, semi-structured interviews were conducted on a convenience sampling of dental faculty members (n=10) and a thematic, interpretative analysis was applied. Results: Findings revealed six dominant themes impacting EDIA capacity. Knowledge of EDIA language, interfaculty communication and institutional messaging are identified as weaknesses, while informal, community building events for EDIA development are identified as novel strengths meriting prioritization. Motivation to engage in EDIA by faculty members overall is illuminated in relation to emotionally provocative experiences. Conclusion: Current institutional communication of EDIA is unconsciously restricting capacity building based on hierarchical and prescribed parameters. Developing capacity in dental education requires a redirection of resources to initiatives valuing social bonding over prescribed box-checking. This study reveals a new narrative of EDIA capacity within dental education and sustainable pathways for development with high transferability to other health programs.

Keywords: Institutional development, Faculty members, Cultural diversity, Dental education, Inclusive environments
Research Area: Health Inequity
Research Method: Qualitative

Abstract

Measuring Baseline Physical Activity in Junior High School Students

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Abstract

Introduction: Physical activity has countless benefits for children and youth. However, children and youth spend much of their school day sitting. Most Canadian students do not meet the 24-hour movement guidelines set out by the Canadian Society for Exercise Physiology. Locally, in rural Nova Scotia, the students at a Junior High have few opportunities for physical activity during the school day, as they do not have any outdoor play equipment. The purpose of this study was to collect baseline data on student physical activity at a local Junior High by supporting students to be peer researchers. Method: This study used a youth engaged approach to carry out the assessment of student physical activity levels. With the help of adult supporters, the peer research team recruited 39 student participants. Data collection included the completion of a physical activity questionnaire, and wearing a pedometer for 5 days during school hours. A focus group was conducted with the peer researchers to learn about their experience and thoughts about physical activity at school. Results: The student participants at the Junior High took an average of 3235 (SD ± 1636) steps per day, indicating they are not meeting the moderate-to-vigorous physical activity portion of the 24-hour movement guidelines. Self-reported physical activity levels during the school day were also low, except for during physical education (PE) class, when they were quite active. Peer researchers reported participation and teamwork as the successes of the project, and public speaking and pedometer use as the challenges. Conclusion: It was determined that the grade 7 students at rhe local Junior High were taking a low number of steps per day. According to students, the lack of infrastructure to be active at school outside of PE classes is a major reason for their inactivity. Based on this, it is crucial that schools provide adequate time and resources for their students to be active. Future studies should continue to engage youth for their valuable insight.

Keywords: Schools, Youth, Physical Activity
Research Area: Kinesiology/Human Movement Science
Research Method: Mixed Methods

Healthcare Providers' Perspectives on Social Admission Patient Care in One Nova Scotia Hospital

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Abstract

Introduction: There are considerable challenges when delivering quality care in hospitals to patients who arrive at the emergency department with non-acute medical issues. Colloquially known as social admissions (SA), these vulnerable patients are often older adults who have minimal informal supports, poor health preventing social participation, and rely heavily on healthcare and social services. As part of an ongoing larger project examining SA in Nova Scotia, this study explores healthcare providers' perspectives on how care is (and is not) delivered to SA patients in hospital. Methods: Semi-structured interviews were conducted with 18 healthcare providers (physicians, nurses, social workers, allied healthcare, bed flow managers, administrators) that oversee SA in a tertiary care centre in Nova Scotia. Guided by grounded theory methodology, transcribed interview data were inductively coded and categorized. Constant comparative analysis processes and intermediate coding were used to develop categories and subcategories reflective of the participants' perspectives. Results: Participants described the stigma and myths associated with SA. They also recognized key markers of vulnerability and commonalities among SA patient profiles. Participants reflected on both challenges and benefits of the current SA patient policy and the personal impacts of providing care. Recommendations on hospital and community care needs, healthcare provider training and education, and hospital policy will be discussed. Significance: SA patients are highly stigmatized often resulting in poor health outcomes for the patient and distress for healthcare providers. The number of SA are expected to rise as more adults reach older ages and face increased risks for social vulnerability. Healthcare providers recognize the need for more robust social, community, and primary health services to ensure vulnerable patients (and their caregivers) are supported to age with dignity at home for longer.

Keywords: Social Vulnerability, Frail Older Adults, Health Services
Research Area: Clinical Research
Research Method: Qualitative

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Abstract

Conducting Respectful Community-Engaged Research with Newcomer Women

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Abstract

Introduction: Newcomer women deal with many resettlement challenges that can lead to overall poor health status; physical activity (PA) participation can be a tool to enhance health and community belonging. Before developing relevant PA programs, it is critical to understand the needs and wants of newcomer women in a way that honours their voices. Community-engaged research is a collaborative approach that equitably involves researchers and community members in the research process. This presentation will examine the research engagement process and how it applies to working with newcomer women. Methods: Drawing on my experience within a community-engaged partnership between Immigrant Services Kingston and Area (ISKA) and Kingston Gets Active (KGA), a not-for-profit organization that promotes PA in Kingston, Ontario, I conducted a reflexive exploration of my research activities characterized by scrutinizing my positionality and actions. Starting in August 2019 our team developed relationships; delivered three virtual PA and physical literacy workshops to newcomer women; and recruited 10 newcomer women to participate in semi-structured interviews about PA participation and community belonging. Results: I had both insider and outsider positionality. As an Arabic-speaking newcomer woman, I had insider status that afforded me credibility, trust, and rapport which secured my acceptance by this community. As a researcher affiliated with an academic institution I could be perceived as an outsider. To mitigate any power imbalances, I shared relevant aspects of my own identity, conversed in Arabic, practiced humility, and encouraged the women to lead the conversations about their experiences. Conclusions: Researchers working with vulnerable communities should explore their positionality and engage in respectful research practices that mitigate power imbalances and provide mutual benefits for community members, researchers, and organizational representatives.

Keywords: Community engaged research, Newcomers, Positionality
Research Area: Population Health
Research Method: Qualitative

Abstract

Problem technology use and psychological distress among adolescents in Ontario, Canada

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Abstract

Background: With the increase in technology use by youth in recent decades, there is a need to examine how the overuse of technology influences youth mental health and wellbeing. The purpose of this study was to examine the association between problem technology use and psychological distress in a representative sample of adolescents residing in Ontario, Canada. Methods: Self-reported data were obtained from a cross-sectional and representative sample of 4,846 students in grades 9 to 12 (mean age: 15.9 ± 1.3 years) who participated in the 2019 Ontario Student Drug Use and Health Survey. Problem technology use was measured using the 6-item Short Problem Internet Use Test and psychological distress was assessed using the Kessler 6-item Psychological Distress Scale. Ordered logistic regression models were adjusted for age, ethnoracial background, subjective socioeconomic status, tobacco cigarette smoking, alcohol consumption, and cannabis use. Results: We found that nearly 36% of students used technology for more than 5 hours per day and 18.7% of students were identified as having symptoms in line with moderate-to-serious problem technology use, although symptoms were more common in females than males. Symptoms of moderate-to-serious problem technology use were associated with higher psychological distress among both males (OR=4.57, 95% CI=3.27-6.38) and females (OR=2.89, 95% CI=2.23-3.75). Conclusion: Findings from this study show that excessive and problem technology use are strongly associated with psychological distress in adolescents, with stronger associations in males than females.

Keywords: Screen, Smartphone, Anxiety, Depression, Youth
Research Area: Mental Health/Addiction
Research Method: Quantitative

Abstract

Significant Case Reviews: An Imperative of Adult Protection in BC

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Abstract

Introduction: Adult protection is the responsibility of each individual province and territory in Canada. In BC, adult guardianship investigations are the responsibility of seven designated agencies. Adult protection cases are complex, requiring significant time and effort. With a growing population of older adults and the increased awareness of ways to report concerns of abuse, neglect, and self-neglect, adult protection cases are rising. The result of adult guardianship investigations can result in an adult being offered supports and services, their financial affairs being managed by alternative parties, or the adult being removed to a safe place. As adult protection cases increase, it is imperative that BC continue the work to understand how adult protection cases are currently carried out, and ways to improve responses to reports of abuse, neglect, and self-neglect. Methods: Comparative analysis of adult protection legislation and processes in Scotland and BC in order to understand processes of adult protection case reviews. Results: Significant case reviews provide the opportunity for an interdisciplinary, interagency review of serious cases related to adult protection in order to determine areas of learning and improvement in order to better support vulnerable adults. There is no equivalent to significant case reviews within the BC adult protection framework. There is currently no formal method of adult protection case reviews in BC. Conclusions/Significance: Within the BC adult protection framework, complex adult protection cases do not receive any form of analysis or review unless the case is presented to the courts. The process of significant case reviews provides a structured approach to case reviews in order to improve responses and supports to vulnerable populations.

Keywords: Adult Protection, Case Review, Health Care, Elder Law
Research Area: Health Policy/Health Law
Research Method: Qualitative

Positives and shortcomings of attachment incentives from the perspective of primary care providers and policymakers

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Abstract

Introduction: Approximately 15% of Canadians do not have a regular primary care provider (PCP); they are referred to as unattached patients. To address unattachment, several provinces have introduced a financial incentive for family physicians (FPs) who accept new patients. From April 2018 to March 2020, Nova Scotian FPs were offered a $150 incentive for each patient they accepted. Methods: As part of a larger, mixed-methods study, semi-structured qualitative interviews were conducted with Nova Scotian PCPs and policymakers to explore their perspectives on patient access and attachment to primary care. Thematic analysis was performed to identify themes related to attachment incentives. Results: Twenty FPs, seven nurse practitioners (NPs), nine policymakers, and one dual-role FP/policymaker participated. Three overarching themes were identified: 1) positive impacts of the incentive, 2) shortcomings of the incentive, and 3) alternate strategies to strengthen primary healthcare. Participants shared that the incentive compensated FPs for administrative work and encouraged patient attachment, to some extent, but felt it failed to overcome systemic challenges such as a shortage of PCPs. Concerns were raised about the impact of the incentive on access to timely and quality care, and the potential for misuse of the incentive. NPs were unable to benefit from the incentive, and some PCPs perceived the incentive as a political maneuver. Participants identified several alternative strategies to promote patient attachment and strengthen primary care. Conclusion: Attachment incentives may offer short-term solutions for patient unattachment; however, they may not overcome systemic challenges or contribute to equitable access to healthcare. Instead, resources should be allocated to alternative approaches that consider priority patient populations, provider capacity, and renumeration and practice models that support collaborative practice and patient attachment.

Keywords: Primary Care, Unattached Patients, Financial Incentives, Family Physicians, Health Policy
Research Area: Health Policy/Health Law
Research Method: Qualitative

Abstract

Seeing the sacred in public health

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Abstract

Introduction: The impacts of religion on public health are complex, contradictory, and largely unexamined. Despite the widespread adoption of the Social Determinants of Health (SDOH) framework which pushes us to look to the "causes of the causes", there is a conspicuous, ongoing silence within the field of public health around the ways in which religion shapes the behaviors, social norms, institutions, and laws surrounding core public health issues. This poster seeks to initiate conversations on religion as a social determinant of health and the implications of this framing. Methods: This poster presents a literature synthesis assessing a) the current state of academic research on religion and public health, b) ethical and methodological challenges to integrating religion into public health research and practice, and c) potential future directions. Results/Anticipated Results: Preliminary analysis shows that research on religion and public health is fragmented across specific issues with little overarching synthesis on religion as a SDOH. Research on navigating religion-based barriers and facilitators to health is needed. Collaboration with faith groups holds broad applications for public health goals ranging from addressing the widespread mental health crisis to mitigating the health impacts of climate change. Significance: Religion permeates all levels of public health, from international health policies down to individual decision-making. Failing to acknowledge the health impacts of religion leaves public health officials trying to predict the weather while ignoring the wind. In a time of both rising religious extremism and innovative religious social justice activism, factoring religion out of public health work leaves systemic harms unchallenged, and transformative collaborations unrealized.

Keywords: Social determinants of health, Religion, Public health
Research Area: Population Health
Research Method: Qualitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Victim or Survivor: Do Labels Matter? Exploring Undergraduate Students Beliefs on Sexual Violence Labels

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Abstract

Introduction: Sexual violence is a public health and human rights crisis that continues to be ignored by society. University students experience sexual violence at implacable rates, causing rape culture and rape myths to engulf university campuses. Few studies have explored the role of how language contributes to and normalizes rape culture and rape myths. The purpose of this study was to examine undergraduate students' beliefs on the labels "victim" and "survivor" to explore if sexual violence labels reproduce greater social and institutional discourses on sexual violence. Methods: Data was collected from undergraduate students from two mid-sized universities, one located in Canada, and one located in the United States. Students were enrolled in two similar sexuality courses that used the same online course textbook. Students responded to an open-response prompt on their beliefs and attitudes on sexual violence labels. Data were analyzed using Critical Feminist Poststructuralism (CFP), A framework developed by the researcher adopting from Critical Discourse Analysis and Feminist Poststructuralism. Results: A total of 218 undergraduate students' responses comprise the study data (117 Canadian students; 101 American students). Using CFP, six threads of discourse were theorized, each with its own sub-threads: Identity, Resiliency, Self-exclusion, Blame, Control, and Severity. Direct quotes and linguistic patterns are displayed to reveal how discourse is created from the re-production of language. Significance: This research could bring forth important implications such as the need to shift how sexual violence labels are used and how we think about how beliefs on sexual violence are formed. The findings of this study could advance additional research in this area through the recognition that sexual violence labels may play a role in improving outcomes and dismantling inequities.

Keywords: Sexual violence, Rape culture, Rape myths, Discourse analysis, Undergraduate students
Research Area: Population Health
Research Method: Qualitative

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POPULATIONS
JOURNAL

Abstract

Transitions in Transplant

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Abstract

Introduction: Renal transplantation is often the preferred treatment for chronic kidney disease due to its association with increased survival and quality of life. The number of patients receiving treatment for chronic kidney disease, including renal transplantation, is rising. The transition from hospital to home is critical for renal transplant recipients, as the patients face new challenges with lifestyle changes. They are at heightened risk for complications, increasing the possibility of graft failure and mortality. Despite poor outcomes discussed in the literature, there is a scarcity of qualitative research focusing on the hospital-to-home transition, especially in a Canadian context. This study intends to explore the barriers and facilitators to a smooth transition from hospital to home of renal transplant recipients, aiming to answer the question: How do Atlantic Canadian renal transplant recipients experience the transition in care post-operatively to three months after? Methods: An integrated knowledge translation approach will inform each step in the research process, creating a working group comprised of key stakeholders. Interpretative phenomenological analysis will allow renal transplant recipients to share their unique perspectives on transitioning from hospital to home post-transplant through semi-structured interviews. Interpretative phenomenology will also guide the data analysis process. Anticipated Results: The results will be used to design evidence-based interventions which address the barriers and facilitators to an easier transition from hospital to home. Significance: The study findings will provide a holistic understanding of renal transplant recipients' experiences with transition and enable healthcare providers to better support this population.

Keywords: Transplantation, Patient experiences, Translational Science, Biomedical, Nursing
Research Area: Population Health
Research Method: Qualitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Exploring Leisure Coping among Undergraduate Students in Preparation for Internship

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Abstract

Introduction: Students in their postsecondary studies have been struggling with their mental health, especially during stressful processes, like internships. Leisure stress coping is understood to be coping behaviours available through leisure during stressful situations. Students should have a powerful coping mechanism when they are faced with these challenges. The purpose of this review is to identify the use of leisure stress coping for students in their undergraduate studies in hopes of improvement for their mental health. Methods: The methods for this review includes collecting information within the students of health and human performance via survey using open ended and scaling questions, along with the potential opportunity for focus groups for both recreation studies (therapeutic recreation and recreation management) and potentially health promotion. Results: Students are struggling heavily with their mental health and not being successful in finding coping strategies to help them manage their stress. Students reported worse mental wellbeing and higher academic stress during their studies. It was found that no studies have explored the impact of recreation programs for students during these difficult times. Significance: This review will aim to identify leisure stress coping strategies to benefit students' mental health. The identified gaps from this review can inform future researchers and recreation therapists with strategies to adapt leisure stress coping programs for undergraduate students during the internship preparation process.

Keywords: Therapeutic Recreation, Leisure Stress Coping, Postsecondary
Research Area: Recreation and Leisure
Research Method: Qualitative

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Abstract

Relationship Between Self-Reported Mood Symptoms of Parkinson’s Disease and Their Underlying Cognitive Mechanisms

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Abstract

Introduction: Mood symptoms of Parkinson’s disease greatly impact patients' lives, yet their underlying cognitive and neural mechanisms are not well understood. The research project aims to examine the relationship between self-reported mood symptoms of Parkinson’s Disease and their presumed underlying cognitive mechanisms. For instance, research has shown that neurodegeneration in the prefrontal cortex in Parkinson’s patients may affect decision making, rendering them vulnerable to risky behaviour. As such, one relationship to be examined in the project is between self-reported impulsivity and response inhibition. Another relationship to be explored is between self-reported anhedonia and reward sensitivity. Methods: Parkinson’s patients (PD, n=200) and healthy controls (n=200) are being recruited online and in-person to complete questionnaires that provide information about their self-reported anhedonia (measured by the Barratt Impulsiveness Scale) and impulsivity (measured by the Geriatric Depression Scale and the Snaith-Hamilton Pleasure Scale). Participants then perform corresponding computer-based tasks as measures of the cognitive mechanisms. Specifically, response inhibition is measured with the visual Oddball task and reward sensitivity is measured using the Biased Signal Detection Task. Statistical analyses will be carried to examine the relationships between performance on the cognitive tasks and severity of self-reported mood symptoms. Anticipated Results: Participants with PD are expected to show poorer response inhibition and reward sensitivity, which should in turn correlate with higher impulsivity and anhedonia scores, respectively. Significance: Identifying cognitive mechanisms underlying the mood symptoms in Parkinson’s disease would allow us to follow-up with neuroimaging to identify the neural substrates of these cognitive mechanisms. This could eventually provide new therapeutic targets to support the development of new therapies.

Keywords: Parkinson's Disease, Cognitive Function, Impulsivity, Anhedonia
Research Area: Clinical Research
Research Method: Quantitative

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Abstract

Health inequities among older adults in Canada: Implications for policymakers

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Abstract

Introduction: There is longstanding evidence of health inequities among older adults in accessing Primary Health Care in the Canadian healthcare system by geographic location, ethnicity and/or race, and socioeconomic status. Methods: I will use a four-phased design and multiple methods. First, I will identify the individuals, including older immigrants, who experience health inequity through secondary analysis of data obtained from the longitudinal database of the Canadian Longitudinal Study of Health and Aging (CLSA); second, I will interview older people who are at the risk of health inequity to learn about their experiences and challenges in accessing Primary Health Care; third, I will interview stakeholders about the primary reasons for disparities in health and identify practical recommendations to address health inequity for older people; fourth, through a Delphi method with stakeholders, I will explore the feasibility, cost-effectiveness, and applicability of the recommendations. While the quantitative portion of the study will focus on older adults across Canada, the qualitative methods in phases 2-4 will be implemented in Nova Scotia. The data will be integrated to develop a policy brief for public health decision-makers in Nova Scotia. Anticipated results: The result of this study helps us in understanding the health of older people and how health care systems can be tailored to better support their health needs. Conclusion/significance: This proposal is very timely as it will contribute to the creation of new health system knowledge, a strengthened health system and improved access for older adults across Canada.

Keywords: Health inequity, Primary Health Care, Older adults
Research Area: Health Inequity
Research Method: Mixed Methods

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Abstract

Comparative Analysis of a Perturbed Drop Jump Landing Task in Healthy Participants

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Abstract

Introduction: Biomechanical research has improved understanding of jump landing mechanics and has identified key characteristics of assessment in the avoidance of injury. However; to date little is known if knee mechanics change in perturbed environments, like those found in sport. The purpose of this study is to determine whether differences exist in knee joint kinematics and muscle activation patterns in the perturbed vs non-perturbed setting. Methods: Sixteen subjects between 18-28 years old were recruited to perform drop jump landings from a 30cm high platform in both an unpredictable perturbed (1cm medial surface translation) and non-perturbed setting. Informed consent was obtained. Sagittal and frontal plane joint angles were calculated using 3D motion capture technology and muscle activation patterns of lower extremity muscles were derived using surface electromyography using standard laboratory procedures. T-test and ANOVA models were used to determine biomechanical and muscle activation differences in discrete waveform features. Significance was set to $p=0.05$. Results: Greater peak knee flexion angle and lower mean hamstring activation ($p<0.05$) were found during the perturbed landing. No differences in peak frontal plane angle or range of motion for sagittal or frontal plane, quadriceps, gluteus medius, or gastrocnemius were found in the perturbed versus non-perturbed landing ($p<0.05$). Lower rectus femoris activity was found regardless of jump condition ($p<0.05$). Conclusion: The presence of perturbation upon landing resulted in greater peak flexion but no changes in overall sagittal or frontal plane knee motion. In conjunction with absence of change in agonistic muscle and a reduction in antagonistic muscle activity between jump scenarios, this suggests a controlled landing strategy is maintained despite a challenged environment in an active, healthy population.

Keywords: Drop Jump, Knee, Biomechanics
Research Area: Kinesiology/Human Movement Science
Research Method: Quantitative

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Abstract

Objective Behavioural Comparison of Youth and Adult Anxiety: A Mobile Sensing Approach

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Abstract

Introduction: Clinicians and researchers assess youth and adult anxiety with subjective measurements (e.g., standardized questionnaires), which are useful for treatment choice and assessing clinical response, but limited by patient insight and recall. Therefore, anxiety must also be objectively measured. Smartphone mobile sensors (e.g., GPS; light/noise sensors) have proven useful in adults to measure anxious behaviours. We will use the PROSIT smartphone app to assess and compare youth and adult anxiety. Methods: Two hundred sixty youth (aged 12-21) and adults (26-40) with anxiety problems will be recruited from the Strongest Families Institute and via social media in Canada, respectively. First, they will complete questionnaires assessing demographics, anxiety, depression, and substance use. Second, they will use the PROSIT app for two weeks. It will passively record sleep, sociability, and exercise, via the following smartphone sensors: GPS, gyroscope, magnetometer, accelerometer, light/noise sensors, call logs, message logs, and app logs. The app will also prompt them for daily anxiety ratings and weekly behavioural assessments. Anticipated Results: We will use structural equation modeling to predict daily anxiety with standardized questionnaires and mobile sensing data. We anticipate that mobile sensing will enhance predictions of daily anxiety differently in youth than adults (e.g., a stronger exercise-anxiety relation in youth). Further, we anticipate age-demographic interactions (e.g., the sociability-anxiety relation will be stronger in youth females than adult females). Significance: Validation of mobile sensing could speed up the pathway to care via rapid clinical monitoring to identify early signs of anxious episodes. Research in adults has already shown promise on this front, so it is therefore ethically necessary (and pragmatically useful) to extend this research to youth.

Keywords: Anxiety, Mobile sensing, Adolescent psychiatry, Psychiatry, Social interaction
Research Area: Mental Health/Addiction
Research Method: Quantitative

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Abstract

Trends in Socioeconomic Inequalities in Breast Cancer Mortality in Canada: 1992-2019

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Abstract

Background: Breast cancer is the second leading cause of death from cancer among Canadian females. There is evidence of socioeconomic inequalities in cancer mortality in Canada and other countries globally; however, there is no study investigating trends in socioeconomic inequalities in breast cancer mortality in Canada. Objective: This study aimed to quantify and assess trends in education and income inequalities in the mortality rate of breast cancer in Canada from 1992 to 2019. Methods: We constructed a census division level dataset pooled from the Canadian Vital Death Statistics Database (CVSD), the Canadian Census of the Population (CCP), and the National Household Survey (NHS) to examine trends in education and income inequalities in the mortality rate of breast cancer in Canada over the study period. The age-standardized Concentration index (C) was used to quantify income and education inequalities in breast cancer mortality over time. Results: The national crude mortality rate of breast cancer has decreased in Canada from 1992 to 2019 with Alberta, British Columbia, Manitoba, Ontario, Prince Edward Island, and Quebec having the greatest decreases in mortality rate. The age-standardized C for education and income inequalities were always negative for all the study years, meaning that the mortality rate of breast cancer was higher among less-educated and poorer females. Moreover, the results indicate a growing trend in the concentration of breast cancer mortality among females with lower income and education from 1992 to 2019. Conclusion: The increasing concentration of breast cancer mortality among low socioeconomic status females remains a challenge in Canada. Continuous efforts are needed to improve the prevention and treatment of breast cancer among low socioeconomic status Canadians.

Keywords: Socioeconomic Status, Inequalities, Breast Cancer, Mortality, Canada
Research Area: Health Inequity
Research Method: Quantitative

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Abstract

The Impact of Recombinant Factor VII on Morbi-mortality in Adult Cardiac Surgery: A Propensity-Score Matching Analysis

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Abstract

Background: Our objective was to retrospectively compare morbidity, mortality and transfusion outcomes between cases who received recombinant Factor VII activated (rFVIIa) in cardiac surgery with a propensity-score-matched group at a single center. Methods: From 9,033 cardiac surgeries, the blood bank identified 103 patients that received rFVIIa from January 2009 to December 2019 (1.14%). Preoperative and intraoperative baseline covariates were used in the logistic regression to generate propensity matched rFVIIa and control cases. 81 (90%) FVIIa cases were successfully matched with controls at a 1:1 ratio using the cardiac surgery database. Median dose of rFVIIa was 55.56 µg/Kg, interquartile range was 37.38-80.00 µg/Kg. Data was collected from medical records, the blood bank, and the cardiac surgery databases. Primary outcomes: in-hospital mortality, stroke, and renal failure were analyzed using univariate logistic regression models. Secondary outcomes: perioperative blood products transfused were analyzed using negative binomial distribution. Results: Primary outcomes: Mortality was higher in RFVIIa 30.1% (n=25) vs 12.3% (n=10) compared to the control group; Odds Ratio (OR), 3.17; (95% Confidence Interval (CI), (1.41-7.14); p=0.0054). Stroke and renal failure were not statistically different between groups. Secondary outcomes: Factor VII group received 4.4 (95% CI, 3.282-5.91; p=0.0001) times more blood products than controls during the surgery. Conclusion: Results suggest that the rFVIIa group was associated with increased mortality and transfusion requirements compared to the control group. The use of rFVIIa was not significantly associated with increased risk of stroke or renal failure. Institutional use of rFVIIa is infrequent, as a last resource, and at higher dose compared with contemporary literature.

Keywords: Factor VII, Cardiac Surgical Procedures, Hemorrhage, Stroke
Research Area: Clinical Research
Research Method: Quantitative

HEALTHY
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JOURNAL

Abstract

Autism and Employment: Youth YouTube Vloggers' Perspective

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Abstract

Introduction: This research focused on young autistic people who share their first voice perspectives in relation to employment as described on their YouTube channels. Previous research shows that autists experience unemployment or underemployment, including a paucity of workplace accommodations. Therefore, there is a requirement to explore employment outcomes for this marginalized group in order to increase their quality of life, economic independence, and social integration and ultimately benefit both employers and employees. Methods: This thesis examines YouTube videos of youth vloggers (15-24 years old) who identify as autists and whose content is in English. The thesis uses a media content analysis to collect data from the YouTube social media platform and examines youth vloggers' experiences with employment using an inductive approach by coding and categorizing the data. The popularization of the Internet allows autistic people to be heard and it is a valuable source to listen to their lived experiences. Findings: The findings show that the youth in this study experience workplace barriers, such as: standardized interview process, lack of workplace accommodations and societal discrimination. These challenges led to various mental health problems, job termination and decreased quality of life in total. However, the youth vloggers also discuss different coping techniques for positive employment outcomes, including the option of self-employment. Significance: While contributing to the existing literature, this study also demonstrates the importance of accessing the first voice perspectives of autist youth to ensure equitable access to their employment.

Keywords: Autism, Employment, Disability, Job
Research Area: Health Policy/Health Law
Research Method: Qualitative

Abstract

The Discrepancy Between Polysomnography and Automatic PAP Device Scoring of Apnea Indices

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Abstract

Introduction: Positive airway pressure (PAP) therapy is the most common and efficacious treatment for obstructive sleep apnea (OSA), and the apnea-hypopnea index (AHI) is often used to assess sleep apnea severity, with a reduction of AHI being a primary indicator of PAP therapy success. The scoring algorithms used by PAP devices to tag these events are outdated and it is our observation that they tend to over-account for obstructive apneas and under account for hypopneas. Unfortunately, research to date has not focused on evaluating the accuracy of PAP device scoring and whether the algorithms should be updated to more accurately reflect the patient's sleep apnea severity. We hypothesized that respiratory event scoring by PAP devices would significantly differ from scoring of polysomnography (PSG) signals by sleep technologists. Methods: Participants with OSA underwent two sleep studies each at the Sleep Disorders Laboratory, and data on respiratory events during each study night was collected from PAP devices and from PSG scoring by registered sleep technologists. Sleep study scoring was based on scoring rules outlined by the AASM Manual for the Scoring of Sleep and Associated Events. Results: Over the 22 sleep studies, the total number of events tagged was 478 by PAP devices and 627 by PSG. Analysis of 11 participants demonstrated significant differences ($p < 0.001$) in AHI, obstructive apnea index (OAI), and hypopnea index (HYI) between PAP device and sleep technologist scoring. Scoring of respiratory events revealed mean AHIs of 2.93 and 5.27, OAIs of 1.65 and 0.6, and HYIs of 0.59 and 3.86 by PAP devices and sleep technologists, respectively. Conclusion: Our findings indicate a discordance between PAP device data with algorithms that have not be updated and PSG data scored by sleep technologists following up-to-date AASM scoring rules and, therefore, signify a need for improvements in the PAP device algorithm used to detect respiratory events.

Keywords: Sleep Apnea Syndromes, Obstructive Sleep Apnea, Continuous Positive Airway Pressure, Polysomnography, Apnea
Research Area: Clinical Research
Research Method: Quantitative

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Abstract

Can IPAQ+ Scores Predict Blood Lactate Levels Following Steady State Aerobic Activity?

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Abstract

Introduction: Aerobic exercise (AE) can increase the brain's excitability, facilitating neuroplasticity and indicating its use in applications such as rehabilitation stroke. The brain's response to AE, however, is variable. Lactate, an exercise-induced metabolite which accumulates during exercise, may influence brain excitability as altered blood lactate concentration is believed to facilitate brain excitation. Here we sought to explore the utility of a self-reported physical activity questionnaire, the IPAQ+, in predicting which people produce lactate following steady-state AE. Establishing the utility of the IPAQ+ for this purpose would improve feasibility of using AE, as current measures for assessing lactate concentration are resource intensive. Methods: Thirty participants will attend two sessions: in session 1, participants perform a maximal exercise test to determine their maximal power output (POmax), and in session 2, blood lactate concentration is obtained before, during and after 20 min of moderate intensity (60% POmax) AE. Participants will complete the IPAQ+ and metabolic equivalents (METS) determined. METS will be used to predict lactate concentration. Anticipated results: We hypothesize participants with higher MET scores to be more aerobically active and, therefore, have a lower blood lactate level following AE. To date,12 participants have been recruited, and data collection has been completed. Conclusion: We anticipate the IPAQ+ to have utility in predicting blood lactate concentration, providing a feasible approach to its assessment during AE. Having the means to predict who responds best to AE from a neural perspective can help clinicians design rehabilitation programs for patients who have experienced brain injuries such as stroke.

Keywords: Aerobic Exercise, Lactate, Brain Excitation
Research Area: Kinesiology/Human Movement Science
Research Method: Quantitative

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Abstract

Physical Activity and Health Behaviours of African Nova Scotian Adolescent Girls

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Abstract

Background: Adolescence is considered a critical period of development when lifelong health behaviours are established. While there are several benefits to physical activity (PA), there are global trends indicating that adolescents are not accumulating adequate PA. There are numerous factors that influence PA during adolescence, and some adolescents see more disparity in PA than others. Insufficient engagement in PA among adolescents is higher among girls and the Black population. This study will assess the determinants of PA and other health behaviours of African Nova Scotian adolescent girls, and the role of their mother. Methods: Using qualitative methods, I will conduct 6-8 semi-structured interviews with African Nova Scotian mother-daughter dyads. Each dyad will be required to participate in separate interviews. Data collection will be focused on the PA and health behaviours of African Nova Scotian adolescent girls aged 13 to 18 years. Data will be analyzed using reflexive thematic analysis. Anticipated Results: This study will build upon the dearth of research available on African Nova Scotians' family health. It is expected that African Nova Scotian adolescent girls are faced with both gender-based and race-based barriers to PA and health behaviours, and that their mother has a role in these behaviours. Significance: By exploring the PA and health behaviours of African Nova Scotian adolescent girls, health-promoting programs in Nova Scotia may be adapted to meet the needs of our people. Furthermore, this study may inform the development of culturally safe PA interventions that improve the health of the African Nova Scotian community.

Keywords: African Nova Scotian, Physical Activity, Family Health
Research Area: Health Inequity
Research Method: Qualitative

Midwives Working in Nova Scotia: An exploratory qualitative study of their experiences and perceptions of work

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Abstract

Introduction: Midwifery has existed as a regulated profession in many places globally since the early twentieth century but in Nova Scotia, it only became regulated in 2009. Currently, there are a small number of midwives practicing in Nova Scotia and although there has been some research conducted in the province, we know relatively little about their working conditions. This research therefore sought to understand, from the perspective of midwives working in Nova Scotia, their experiences of their work. The key goals of this qualitative exploratory study were to gain an in-depth understanding of how midwives working in Nova Scotia experience their work and perceive their profession, and to understand the impacts of their work on their health (physical, social, emotional and mental health). Methods: One-on-one semi-structured interviews were conducted with six midwives working in Nova Scotia. A modified grounded theory methodology was used to develop a conceptual understanding of the participants' experiences of work. Results: The findings of this study were organized around well-developed themes and sub-themes that were related through an explanatory conceptual framework. Four key themes were developed regarding the midwives' experiences and perceptions of work in Nova Scotia: 1) Positive day-to-day working conditions; 2) The challenges of midwives' working conditions and health implications; 3) Working as a midwife in the healthcare system; and 4) Midwives' recommendations to improve their working conditions in Nova Scotia. Significance: The study findings will contribute to literature and may inform policies and programs to ensure healthy working conditions for the midwives working in Nova Scotia.

Keywords: Midwives, Working conditions, Working experiences
Research Area: Population Health
Research Method: Qualitative

Abstract

Determining the mechanism of 3-phosphorylated phosphoinositides production by Salmonella effector SopB

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Abstract

Salmonella is a common bacterium responsible for life-threatening diarrheal diseases and the development of gallbladder cancer, an aggressive carcinoma. The bacterium can infect human cells by manipulating the plasma membrane to overproduce PtdIns(3,4,5)P3 and PtdIns(3,4)P2 phospholipid species. Specifically, Salmonella is able to produce PtdIns(3,4)P2 by secreting outer protein B (SopB) into human cells. SopB has been thought to work by removing phosphates from the PtdIns lipid species (phosphatase activity). Recently, the Fairn lab has demonstrated that SopB can also transfer phosphate groups from one PtdIns species to another (phosphotransferase activity). Thus, it has been found that SopB works by utilizing its phosphatase and phosphotransferase activity to synthesize PtdIns(3,4)P2. I predict that by mutating SopB to solely retain phosphatase activity, Salmonella invasion and the development of cancer can be stopped using a sub-optimal version of the enzyme. This project will involve mutating SopB at specific sites on the protein sequence to exclusively retain phosphatase activity. Then, to assess the impact of the mutant SopB enzyme, the production of PtdIns(3,4)P2 will be evaluated and the ability of the mutant enzyme to reduce bacterial invasion in human cells will be determined. Salmonella has worldwide implications for those living in countries with poor sanitation and drinking water. Although antibiotics can treat the progression of the disease, Salmonella has become resistant to these methods, causing this area of research to be ranked as “High” on the World Health Organization's global research priority list. Results from this project will provide a better understanding of how SopB functions and determine if targeting SopB can be used to develop novel inhibitors to treat severe and chronic infections.

Keywords: Phosphatidylinositol Phosphates, Phosphotransferases, Salmonella, Phosphatidylinositols, Signal Transduction
Research Area: Applied Science/Engineering
Research Method: Quantitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

The Validity of Sprint Canoe and Kayak Key Performance Indicators and Their Relation to Race Performance

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Abstract

Introduction: Canoe sprint is an Olympic sport where participants race on a straight flatwater course in either kayaks or canoes. Canoe sprint athletes engage in rigorous on-water and off-water weight training programs because greater upper body strength is associated with superior race performance. Improvements in gym technology for quantifying weight training performance have increased the number of key performance indicators (KPIs) available to coaches; however, it is not understood which KPIs are most relevant to canoe sprint performance. The objectives of this research are: 1) To test the validity and reliability of bench press and bench pull KPIs quantified by a linear position transducer (LPT). 2) Explore the relationship these KPIs have with on-water performance metrics. Methods: 1) 40 elite canoe sprint athletes will complete bench press and bench pull force-velocity (f-v) profiling and a 30-repetition repeat power test on bench pull, on two occasions, 48 hours apart. The bar movements during the first testing session will be quantified using the LPT and compared to simultaneously collected Optitrack motion capture data to assess the LPT's criterion validity. The second session will only use the LPT to determine the device's reliability. 2) Athletes will complete the same weight testing protocols and compare the weight training KPIs to performance metrics from an on-water 500m time control, quantified using an inertial measurement unit. Anticipated results: The LPT is expected to be valid tool for quantifying weight training KPIs, except at the lower weights of the f-v profiles. Furthermore, maximum power and power drop percentage recorded during the repeat power test are expected to be the best predictors of on-water performance. Significance: The study's results will guide Canoe Kayak Canada's weight training programs and refine their testing protocols which will improve athlete development, team selection criteria and international race results.

Keywords: Athlete, Weight Training, Validity, Reliability
Research Area: Kinesiology/Human Movement Science
Research Method: Quantitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Lower Extremity Muscle Patterns and Biomechanics are Altered in the Contra-lateral Knee of Adults with Osteoarthritis

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Abstract

Introduction: The knee is the most prevalent joint affected by osteoarthritis (OA), a disease that significantly impacts walking ability. Gait analyses have traditionally focused on the affected, symptomatic knee with limited attention for the uninvolved (contra-lateral) limb despite the heightened potential for OA to develop in the contra-lateral knee over time. The study purpose was to compare knee joint muscle activation and biomechanics in the contra-lateral limb of individuals with knee OA (CONTRA) to an asymptomatic group (ASYM). Methods: All individuals provided informed consent. The CONTRA (n=84) and ASYM (n=45) groups were instrumented with lower limb electromyography (EMG) for measuring muscular activity and reflective markers for 3-dimensional motion tracking (kinematics). All participants walked on a dual-belt instrumented treadmill for 8 minutes where a 20-second trial was recorded (EMG, kinematics, and ground reaction forces) at the end of the 6th minute. EMG, kinematics, and kinetics of each consecutive stride were processed, and ensemble averaged using standard procedures. Principal component analysis was used to determine muscle activation patterns. Discrete outcomes from sagittal and frontal biomechanics were calculated. T-tests and Analysis of Variance models were used to test for statistical significance between groups and muscles. Alpha = 0.05. Results: CONTRA demonstrated a greater knee adduction moment and prolonged lateral hamstring activation during the stance phase compared to ASYM ($p<0.05$). No significant differences were found in sagittal plane biomechanics, quadriceps, or gastrocnemius activation patterns ($p>0.05$). Conclusions: Biomechanical and muscle activation findings suggest altered loading distribution between medial and lateral tibiofemoral compartments during gait that may have implications for greater tissue damage over time. Null findings support the role of symptoms in altering gait mechanics and muscle activation.

Keywords: Knee Osteoarthritis, Gait, Electromyography, Biomechanics
Research Area: Clinical Research
Research Method: Quantitative

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Abstract

Modeling a dual drug delivery system using a biodegradable core-sheath fiber

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Abstract

Introduction: The design of novel biomaterials has led to innovative methods of locally delivering drugs to tissues with broad medical applications such as in wound healing, infection control, and tissue regeneration. Our group is developing a core-sheath fiber system from biodegradable polymers for tunable drug delivery. In the present work we present a computational model that demonstrates how this system can be used for controlled release of two drugs simultaneously. We use a model system of two antimicrobials with prospective real-world application in the treatment of diabetic wound infections. Methods: A system of drug release from a degrading two-layered fiber is modeled using diffusion equations and model parameters in the computer software Mathematica. Metronidazole and doxycycline are used as model antimicrobials. The core and sheath of the fiber are loaded with separate drugs. The two layers of the fiber degrade at different rates. The effects of variation in fiber thickness, degradation speed and drug hydrophilicity on drug release profiles and concentrations are analyzed. Anticipated Results: As the fiber degrades, the two drugs are released at different rates. Modification of fiber thickness and degradation speed result in unique variations of the release profiles of the two drugs, with the sheath-loaded drug typically displaying burst release and the core-loaded drug displaying sustained release. Hydrophilic drugs are released more rapidly. Significance: This work applies physics towards innovative biomedical applications. The findings are being used to help inform concurrent real-world development of a core-sheath fiber drug delivery system. The results will highlight how rational choice of fiber and drug constituents result in distinct drug release profiles that can be tuned to specific applications.

Keywords: Drug Delivery Systems, Biodegradable Implants, Biomedical Engineering, Local Anti-Infective Agents, Computational Modeling
Research Area: Applied Science/Engineering
Research Method: Quantitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Oral Health Care Providers' Perspectives on Refugeed Children's Oral Health

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Abstract

Introduction: According to the World Health Organization, oral diseases are one of the leading health problems refugeed children experience. Previous studies have suggested that refugeed children experience higher caries prevalence, poorer oral hygiene, and greater unmet dental needs compared to children born in their host countries. Poor oral health can lead to pain and discomfort and impact a child's overall well-being. This project aims to gain an understanding of the role oral health care providers play regarding the oral health of refugeed children, including how these providers think these children can impact their own oral health care. Methodology: This qualitative descriptive study uses in-depth, semi-structured interviews for data generation. We are recruiting a purposeful sample of clinical staff at the dental clinic. We are employing Childhood Ethics as our theoretical framework to ensure a focus on what matters to children and families. Results: Participants have expressed concerns regarding the shortcomings of the Interim Federal Health Program (IFHP), the main form of health insurance these families have, especially its lack of child-specific coverage. Participants suggest that limited time, language barriers, and financial constraints are among the main barriers faced by refugeed families. Our preliminary analysis also suggests that due to financial limitations, the dental treatments offered to refugeed children can differ from those offered to Canadian children. Refugeed children's own experiences and concerns do not seem to be explicitly solicited by the dental health care providers. Significance and knowledge translation: We anticipate future work with stakeholders, which may include oral health education sessions and referral pathways.

Keywords: Refugees, Children, Oral Health
Research Area: Health Inequity
Research Method: Qualitative

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JOURNAL

Abstract

Exploring Mental Health Literacy in Canada: A Mixed-Method Cross Sectional Survey

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Abstract

Introduction: Mental health literacy (i.e., mental health-related knowledge, attitudes, and behavior; MHL) may be a key to reducing the burden of mental illness on the health system and to improving the overall population's mental health through facilitating upstream mental health promotion. The purpose of this mixed-method study is to explore the correlates of MHL in Atlantic Canada and assess the ability of residents to correctly diagnose a disorder, identify potential causes, and propose suitable treatments. Methods: A sample of Atlantic Canadians (N = 254) participated in this cross-sectional study which included vignettes and measures of overall MHL, level of contact, and social distance. Results: We found that a) social prescribing was disproportionately recommended for generalized anxiety, b) panic disorder was least likely to be correctly identified, c) general anxiety was disproportionately thought to be caused by external factors, d) only social distance predicts MHL beyond demographics and level of contact, and e) household (not individual) conservative orientation negatively predicts MHL. Conclusions: Efforts to improve MHL and thus reduce the burden of mental illness on the Atlantic Canada health system could be informed by increasing knowledge of the evidence-based causes and treatments of generalized anxiety disorder, increasing residents' ability to recognize disorders beyond depression (e.g., panic disorder), and reduce stigma by fostering comfort for those living near individuals with mental illness.

Keywords: Mental health literacy, Generalized anxiety, Depression
Research Area: Population Health
Research Method: Mixed Methods

Abstract

Sleep quality and changes in clinical outcomes after physical therapy care in older adults with chronic low back pain

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Abstract

Introduction: Low back pain (LBP) prevalence can reach 68% in the elderly population. Poor sleep quality has been associated with impaired pain control pathways and may affect the prognosis of older adults with LBP. However, it is unclear whether sleep quality is related to recovery for patients receiving physical therapy care. We aimed to investigate the association of sleep quality with improvements in pain and functional limitations in older adults with chronic LBP after physical therapy care. Methods: This was a pre-post intervention study. Eligible participants were ≥60 years old, reported non-specific LBP for ≥3 months, and were initiating physical therapy care. Individuals were excluded if they presented with cognitive decline, specific LBP, or radiculopathy. Before starting the treatment, participants answered the following questionnaires: Leganés Cognitive Scale, Pittsburg Sleep Quality Index (PSQI), Numeric Pain Rating Scale (NPR), Roland-Morris Questionnaire (RMQ), and Geriatric Depression Scale (GDS-15). Physical therapy care consisted of a 2-month exercise program, twice a week, with 1-hour sessions. The NRS and RMQ were answered again after 2 months. We ran multiple linear regression models with change in pain or functional limitations as dependent variables, sleep quality as the independent variable, and adjustment for age, BMI, and GDS-15 score. Results: We included 114 participants (73.7% women; mean age 69.7±5.9 years; mean baseline NRS score of 7.0±2.1; mean baseline RMQ score of 12.2±5.2). We found no association between sleep quality and changes in pain intensity (β, -0.086; 95% CI: -0.314, 0.143) or functional limitations (β, -0.008; 95% CI: -0.232, 0.216). Conclusion: Sleep quality was not associated with improvements in chronic LBP after physical therapy care. Our results contradict previous studies that found sleep quality to be associated with clinical improvement in older adults with chronic LBP not receiving physical therapy care.

Keywords: Chronic pain, Low back pain, Aged, Sleep wake disorders
Research Area: Clinical Research
Research Method: Qualitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

After-school providers' perceptions of outdoor loose parts play in relation to children's fundamental movement skills

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Abstract

Introduction: Play is central to children's development, health and wellness. Outdoor play provides opportunities for children to gain fundamental movement skills (FMS), which are a component of physical literacy. Qualitative data from early childhood educators demonstrate that the incorporation of loose parts (materials with no fixed purpose) into childcare centre outdoor spaces encourage diverse movements that contribute to FMS development. While the benefits of outdoor loose parts play (OLPP) for FMS development in early childhood have been examined, little is known about the movement capacities that school-aged children can develop through OLPP. Methods: Extending upon its work in Nova Scotia childcare settings, the Physical Literacy in the Early Years School project integrated OLPP into three NS after-school settings. Over the course of six weeks, after-school providers took photos of children engaging in OLPP, and described how they were engaging with loose parts and the FMS in which they noticed children engaging. Photos and corresponding documentation were explored in follow-up interviews. Data from one site (rural) were explored due to its unique physical environment, encouragement of OLPP, and rich photo documentation. Anticipated Results: Based on similar findings in preschool-aged children, after-school providers may perceive OLPP as contributing to diverse FMS in elementary school-aged children. Significance: Understanding after-school providers' perceptions of OLPP in relation to school-aged children's FMS can provide further support for this type of play in promoting children's physical literacy.

Keywords: Loose parts play, Outdoor play, Fundamental movement skills, Physical literacy
Research Area: Kinesiology/Human Movement Science
Research Method: Qualitative

HEALTHY
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JOURNAL

Abstract

The Best We Have To Offer

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Abstract

Introduction: The Child, Youth and Senior Advocate completed a Review of Youth Suicide Prevention and Mental Health Services in the Province of New Brunswick following the death of Lexi Daken at the Dr. Everett Chalmers Hospital in Fredericton on February 24th, 2021. Methods: The Final report and recommendations were informed by review of the document disclosure by government, augmented by internal literature review and research, as well as extensive public consultation, via over 4000 online survey responses, over 10 community online consultations, key informant interviews, expert dialogue sessions, individual citizen feedback and formal submissions. Results: The Report's key recommendations began with a call for a Minister for Children and Youth. Another key recommendation calls for a Provincial Action Plan for child and youth mental health and suicide prevention aimed at reinvesting in community-based care and services that are earlier, more preventative and responsive solutions than hospital-based crisis care. They also recommended the much-needed improvements and reform of Integrated Services Delivery as a central mechanism for improved community-based care. The reported closed with two recommendations related to the prevention and public education measures including a call for a separate study into the Quality of Family Life in New Brunswick and the adoption of a Provincial Youth Suicide Prevention Strategy; and improved data collection and research as supports to quality assurance and continuous improvement. Conclusions: The title of the report "The Best We Have to Offer" is a nod to the 1924 Declaration on the Rights of the Child. The Review found that many shortfalls in the current system could have been addressed if better governance and accountability mechanisms had been in place to track and implement earlier recommendations. These recommendations will be continually followed up on every six months to ensure accountability.

Keywords: Mental Health, Youth, Engagement
Research Area: Mental Health/Addiction
Research Method: Qualitative

Abstract

Playing and Learning Together: Caregiver Perspectives of a Play-Based Program for Children and Youth with ASD

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Abstract

Introduction: Play-based programs provide a therapeutic intervention and social support system for children and youth with various disabilities and their caregivers. Playing and Learning Together (PLT) is one such program in Halifax, Nova Scotia. There are gaps in the literature regarding the effects of play-based programs on physical and social outcomes for children with autism spectrum disorder (ASD). Purpose: This evaluation study seeks to understand the perspectives of caregivers of youth people ages 5-18 with ASD on PLT's programs by understanding the experiences in the program and their recommendations. Methods: A total of 10 semi-structured interviews were conducted. Data were collected via Microsoft Teams and recorded, transcribed, and analyzed using Braun and Clarke's (2016) Thematic Analysis guidelines. Results: Four themes were generated from the data: Benefits of the Program, Respite for Families, Challenges of Finding Inclusive Programming, and Barriers to Participation. Results of the interviews illustrated that parents thought PLT's programs were beneficial for the physical and social skills of their children. They also stated that PLT provided important respite for families. Parents also described barriers to accessing PLT, such as lack of transportation and the high cost of the PLT program. Conclusion: Overall, the results of this study inform PLT's programming and provide a holistic understanding of the effects that play-based programs have on children and youth with ASD and their families. This study contributes to the growing body of literature examining the impact of play-based programs for this population.

Keywords: Child, Youth, Play, Inclusion
Research Area: Population Health
Research Method: Qualitative

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Abstract

"Seeking Paradise" as a Social Determinant of Health: Defining Political Mental from the Stories of Kanaka Maoli

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Abstract

Introduction: Hawai'i is assumed as being the "50th state." This assumption deflects the political agenda of the united states as an occupying nation, its harmful military industrial complex, and settler colonialism by entitled tourists, from accountability for the displacement of Kanaka Maoli (Native Hawaiians). As a result, the mental health of Kanaka Maoli globally are compromised. This proves to be challenging for diasporic Kanaka Maoli due to the lack of cultural and/or therapeutic practitioners who are culturally competent to care for Kanaka Maoli. Methods: To examine how mental health of Kanaka Maoli is affected by these political processes, an Indigenous approach is used to define the term political mental health. The primary method of data collection for this study utilizes semi-structured interviews of Kanaka Maoli women over the age of 30. The interviews will take on the form of storytelling to produce understanding through phenomenological methodology. Results/Anticipated Results: Results from this study will be used to develop a working definition of political mental health that is relevant to the unique experiences of Kanaka Maoli. Conclusions/Significance: This study will shape therapeutic modalities that invites medical and mental health practitioners to become more aware of how historical politics is entrenched in the positionality of Kanaka Maoli and our mental health challenges.

I do not capitalize the term united states or america(n) due to the illegal occupation of this imperial entity on my Island Nation.

Keywords: Political Mental Health, Kanaka Maoli (Native Hawaiian), Therapeutic Modalities
Research Area: Mental Health/Addiction
Research Method: Qualitative

HEALTHY POPULATIONS JOURNAL

Abstract

Validation of an inertial measurement unit system for ice hockey goaltender exercise volume and intensity quantification

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Abstract

Introduction: Ice hockey goaltenders repeatedly perform various save movements that expose them to significant impact forces while in extreme hip postures, making them susceptible to hip injuries. A potential solution for decreasing the prevalence of overuse injuries in this population is to track and manage exercise volume and intensity (EVI). An ideal method for quantifying EVI in goaltenders is to use a multiple inertial measurement unit (IMU) system. However, the cost of these systems makes them inaccessible to many goaltenders, leaving a need for an alternative tracking tool. The purpose of this research is to determine the accuracy and reliability of a singular IMU tracking system that quantifies ice hockey goaltender movements and stances, and to determine if the position of the device on the goaltender's back affects the tracking accuracy. Methods: 20 goaltenders will complete 2 identical but separate testing sessions, where they will perform a standardized pattern of common goaltending movements while wearing an XSENS motion capture system, and 2 singular IMUs attached to the thorax and low back of the goaltender. Accuracy of the singular IMUs will be determined by comparing the number of recorded movement bouts and total time spent in standing and save stances to those determined by the XSENS system. Reliability will be determined by comparing the same movement outcomes recorded by the singular IMU between testing sessions. Anticipated results: It is expected that both placements of the singular IMU tracking system will be valid for quantifying EVI in ice hockey goaltenders, and that the low back placement will improve the tracking accuracy due to decreased data noise caused by trunk movement. Significance: Successful validation of this system will have implications for improving performance and safety for the approximate 50,000 ice hockey goaltenders across Canada, by reducing the cost to obtain a reliable and accurate method of quantifying EVI.

Keywords: Inertial measurement unit, Hockey, Goaltender
Research Area: Kinesiology/Human Movement Science
Research Method: Quantitative

Abstract

What are the Experiences of New Nurses in the Charge Nurse Role: A Narrative Inquiry

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Abstract

Introduction: New graduate nurses typically begin their careers in the acute care setting. Due to high turnover of staff in this care area, and recent staff shortages due to the COVID-19 pandemic, new nurses are assuming leadership roles, such as the charge nurse position, at earlier stages in their careers. The charge nurse role is a complex leadership position that is found on most acute care units. Historically, senior nurses were assigned to the charge nurse role due to their clinical knowledge and work experience. New nurses are now being assigned to this role within their first year of practice. New nurses are particularly vulnerable to burnout and turnover; therefore, it is important to understand their experiences to help promote retention and ensure that they are supported in this position. Methods: A narrative inquiry research design will be used to guide this study. Semi-structured interviews will be conducted with 10 participants. Anticipated Results: This research study will help to gain an in-depth understanding of the experiences, challenges and learning needs of new nurses assigned to the charge nurse role. In addition, this study will address a gap in the literature and draw attention to the need for greater research exploring this practice issue. Conclusion/Significance: There is an urgent need to understand how to best support new nurses to assume this critical leadership role. This study hopes to lead to the development of resources and practice changes that help to create a supportive culture for new nurses in the charge nurse role.

Keywords: Nursing, Leadership, New Graduate Nurse, Charge Nurse Role
Research Area: Health Administration/Business
Research Method: Qualitative

Abstract

Beading Cultural Safety: Medical students' experiences with Indigenous-led cultural safety training and beadwork

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Abstract

Introduction: Increased attention to the discrimination Indigenous peoples face in health care has resulted in a surge of cultural training programs for healthcare professionals. Although significant variation exists, the Canadian medical schools' cultural curricula is predominantly didactic, led by non-Indigenous instructors, and inadequately prepares students to work as clinicians in Indigenous contexts. As medical students' attitudes have been identified as an important means of improving care for marginalized patient groups, understanding and addressing the inefficacy of current cultural competency pedagogies and moving towards centring cultural safety is paramount in improving the state of Indigenous health in Canada. Methods: A cohort of 25 medical students from the Northern Ontario School of Medicine University participated in a one-day workshop on cultural safety led by Indigenous health professionals and were subsequently gifted a Métis beadwork pin prior to attending rural clinical placements. A post-workshop evaluation survey assessed participants' reflections and knowledge of cultural safety concepts. Qualitative semi-structured interviews will be conducted with willing participants in spring 2023 for thematic analysis of their clinical experiences. Anticipated Results: An Indigenous-led cultural safety pedagogy alongside the experience of displaying beadwork will empower medical students' preparedness for Indigenous cultural clinical encounters further than through a didactic curricular model. Significance: The issue of Indigenous discrimination in healthcare requires medical students and systems to move beyond classroom curriculum and engage in active confrontation of privilege, biases, attitudes and knowledge. The responsibility associated with displaying Indigenous beadwork can be shown to encourage continuous accountability to culturally safe practice in clinical environments.

Keywords: Cultural Safety, Indigenous Health, Medical Education
Research Area: Health Inequity
Research Method: Qualitative

Exploring the development of a physical literacy program for youth accessing mental health services: A needs assessment

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Abstract

Introduction: Young people with mental health disorders are at an increased risk of developing chronic conditions such as obesity and type 2 diabetes. This population may have lower levels of physical activity (PA) and physical literacy (PL) than peers, which may be attributed to reduced confidence in their physical abilities, low motivation to be physically active, and compromised fundamental movement skills. Therefore, additional resources are required to improve PL for young people with mental health concerns. The purpose of this study is to explore the perspectives of young people accessing mental health services and their parents/guardians about PA and recreation barriers, facilitators, and ideas to inform the development of a PL program for this population. Methods: This study was guided by a constructivist worldview and centered on participant perspectives. Participants included nine children and youth ages 10-17 accessing mental health services, specifically for anxiety and depression at IWK Health or within the community, and 11 parents/guardians. Four semi-structured focus groups were conducted, two for each participant group. Focus groups were related to past experiences with PA and recreation programs, as well as participants' interests. Further, focus groups were recorded and transcribed verbatim. Data were analyzed using reflexive thematic analysis. Findings: Three main themes were generated to represent participants' perspectives related to PA programs: (1) Past experiences related to PA, sport, and recreation programs, (2) Participation barriers when accessing PA, sport, and recreation programs, and (3) PL and recreation program design and development. Implications: This study is part of a larger project, Move2Improve, which aims to pilot a PL program for youth accessing mental health services. This needs assessment will be used to inform the development and implementation of this program.

Keywords: Physical literacy, Physical activity, Youth, Mental health, Recreation
Research Area: Population Health
Research Method: Qualitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

An Exploration of the Barriers and Facilitators to Access of Oral Health Care of Ukrainian Newcomers to Nova Scotia

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Abstract

Introduction: The war in Ukraine has resulted in a mass exodus of Ukrainians fleeing their country and seeking resettlement in many countries, including Canada. New immigrants to Canada have been identified as a vulnerable population, experiencing poorer health and oral health outcomes than the general population. There is a lack of literature, particularly qualitative, that explores past experiences with oral health care in the country of origin for newcomers to Canada. The increase in Ukrainian newcomers to Canada requires an exploration of barriers and facilitators to accessing oral health care to inform policy. Methods: Utilizing a narrative qualitative methodology, in-depth, semi-structured, audiotaped interviews will be conducted. The study population will consist of a convenience sample of Ukrainian newcomers to Nova Scotia who is at least 18 years of age, fled Ukraine because of the war in February 2022 and have been living in Canada for at least 12 weeks. The goal will be to recruit 18-25 participants, distributed across genders and ages. Sample size will be evaluated on an ongoing basis to identify when sufficient density of data is achieved. Audio recordings will be transcribed verbatim. Transcribed data will be read, reread, and coded line-by-line and analyzed using the thematic analyses method. Anticipated Results: Qualitative data related to barriers and facilitators to access and utilization of oral health care for new Ukrainian immigrants in Canada and in Ukraine will be obtained. Additionally, the knowledge and understanding of oral health of new Ukrainian immigrants to Nova Scotia will be explored. Significance: As Ukrainian newcomers are considered a vulnerable population, it is necessary to explore the facilitators and barriers to access and utilization of oral health care services in Canada, to inform oral health policy and practice and to address structural and social determinants of health impacting oral health care access and utilization.

Keywords: Oral health, Newcomers, Barrier, Facilitator
Research Area: Population Health
Research Method: Qualitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

One Step at a Time: Role of Physical Activity in Type 2 Diabetes Prevention Among Middle Aged Canadians

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Abstract

Introduction: Type 2 diabetes is a chronic health condition that impedes the body's ability to modulate sugar concentration gradients. Individuals aged 40 to 65 are the most susceptible to type 2 diabetes. Current literature emphasizes the impact of physical activity (PA) and diet alterations simultaneously. Knowledge about the efficacy of PA as an independent influence on disease onset is limited. PA has been identified as a modifiable factor in the effort to reduce the risk of type 2 diabetes. Methods: A between-subject experimental study will be used to analyse the efficacy of physical activity as well as physical inactivity in 6000 participants. Insulin resistance and blood sugar concentration will be recorded annually using an oral glucose tolerance test over 10 years. PA will be measured using a 7-day Physical Activity Recall weekly for the duration of the study. Participants aged 40-65 with no history of diabetes or prediabetes will be included. Anticipated Results: It is anticipated this research will identify the efficacy of PA as an independent factor in the prevention of type 2 diabetes. Additionally, long-term follow up and data collection will be influential in future research into harm reduction measures, policy formation, and evidence-based type 2 diabetes intervention. Significance: Type 2 diabetes is a rising issue for Canadians. Understanding the efficacy of PA as a preventative measure will be beneficial in flattening the curve of disease. Determining the independent influence of PA alongside the current research of type 2 diabetes prevention will strengthen prioritization in treatment and intervention.

Keywords: Physical Activity, Type 2 Diabetes, Insulin Resistance, Prevention
Research Area: Population Health
Research Method: Quantitative

HPJ HEALTHY POPULATIONS JOURNAL

Abstract

Walking Balance in Acromegaly

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Abstract

Introduction: Acromegaly, a chronic disease caused by growth hormone (GH) excess, affects the patients' musculoskeletal and neural systems, causing joint space widening and peripheral nerve hypertrophy. Despite its considerable impact on physical function, research on walking balance of acromegaly patients is scarce. This abstract aims to explore whether patients with acromegaly (PWA) exhibit specific deficits in walking balance compared to patients with non-GH-secreting pituitary adenoma (PNA) when adapting to the obstacle condition. It is hypothesized that PWA will exhibit distinct outcomes in walking balance compared to PNA. Methods: Two age-, sex-, BMI-matched groups, PWA and PNA (n=8 for each group) underwent kinetic data collection using the OptiTrack MoCap system and AMTI Forceplate system. Paired sample t-tests were used to compare scores from functional tests (TUG:Timed Up and Go and DGI:Dynamic Gait Index). A 2-way repeated ANOVA was used to examine the interaction between the effects of acromegaly and obstructed walking on lower limb joint power. Results: Longer completion time of TUG in PWA was observed but no significant difference was observed in DGI scores and walking speed between the two groups. Regarding joint power, PWA's supporting limb generated less hip abductor energy(H2F) whereas PNA generated more H2F in the obstacle condition(PWA:Walk:5.94J/kg vs. Obstacle:5.24; PNA:W:5.20 vs. O:6.42); PWA's crossing limb exhibited less reduction of knee extensor energy absorption(K3) compared to PNA in the obstacle condition(PWA:W:-18.13 vs. O:-12.69; PNA:W:-21.19 vs. O:-12.31).However, these differences did not reach statistical significance(p=0.32, 0.27), likely due to the small sample size. Conclusion: Our study revealed a trend of PWA adopting a different adaptation strategy during obstructed walking, potentially aimed at minimizing joint pain. This innovative study provides the first objective gait analysis documenting the walking balance of PWA.

Keywords: Acromegaly, Walking balance, Physical function, Joint power, Kinetic deviation
Research Area: Kinesiology/Human Movement Science
Research Method: Quantitative

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Abstract

Assessing Screening and Risk Reducing Strategies for Endometrial Cancer in Postmenopausal Individuals

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Abstract

Introduction: Endometrial cancer is the most common gynaecological cancer in Canada. There have been no improvements seen in survival rates for this disease in the past thirty years. The current method of diagnosis for endometrial cancer is through an invasive endometrial biopsy and no screening for this cancer is currently recommended. However, there are established health and lifestyle risk factors that can be used to predict endometrial cancer disease outcomes and known precursors early on. This study will investigate approaches for targeted early detection and prevention in asymptomatic postmenopausal individuals at risk for endometrial cancer. Methods: We will use known risk factors to identify postmenopausal individuals who are at the highest risk of developing endometrial cancer. Those at high risk will undergo a non-invasive hormonal screening test to help further identify individuals who also have endometrial proliferation, which could indicate the presence of endometrial disease. Those with endometrial proliferation will receive a biopsy and undergo a diet and exercise program to assess proposed methods of reversing known lifestyle risk factors associated with disease progression. In addition, we will ask participants to self-collect samples by wearing tampons and using vaginal swabs that can be mailed in from the participants homes to further advance molecular techniques that will allow for more non-invasive screening options in the future. Anticipated Results: If the proposed screening, intervention, and self-collection method is found to be acceptable by participants, high-risk individuals may be identified earlier for endometrial sampling. Significance: Early detection would allow for earlier access to interventions which allows for improvements in endometrial cancer disease outcomes.

Keywords: Endometrial Neoplasms, Early Detection of Cancer, Clinical Trial, Preventive Medicine
Research Area: Clinical Research
Research Method: Quantitative

HEALTHY
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Abstract

Unmet Healthcare Needs Confronted by People with a Disability in Canada

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Abstract

Introduction: People with disabilities are among society's most marginalized citizens. Disabled persons, according to studies, have considerably more healthcare concerns than non-disabled people. According to a Canadian disability survey, 22% of the population (nearly 6.2 million Canadians) had at least one disability in 2017. In the present study, researchers attempt to explore the unmet healthcare needs of persons with a disability and the difficulties faced by them in accessing various healthcare services. Methods: This study uses data from the Canadian Community Health Survey conducted in 2017-2018 with a sample of 113,258 persons above 15 years of age. The current study focuses on four types of disabilities – hearing, seeing, walking, and self-care. It compares the prevalence of disability among various socio-economic groups based on gender, race, immigration status, and household income. Researchers use logistic regression to examine the probability of experiencing unmet healthcare needs of people with disabilities controlling for several social and economic characteristics. Results: The findings reveal that 15.5% of Canadians had difficulty seeing, 14.9% in hearing, 17.8% in walking/climbing steps, and 3.8% in self-care. More than half of the persons with a disability had unmet healthcare needs, varying from 55.1% for seeing disability to 58.8% for self-care. Results of the logistic regression showed that disabled persons who had lower household incomes (< $80,000) were more likely to have unmet healthcare needs compared to those with a higher household income ($80,000+). These differences were statistically significant. Conclusions/Significance: Persons with a disability are more likely to have unmet healthcare needs compared to persons without any disability. Persons with a disability who depend on others for self-care have the highest level of unmet healthcare needs.

Keywords: Person with disability, Unmet healthcare needs, Marginalized Canadian citizens
Research Area: Health Inequity
Research Method: Quantitative

Abstract

Exploring the dual-use of the Socioecological model and intersectional theory in health research: A scoping review

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Abstract

Introduction: People with disabilities are among society's most marginalized citizens. Disabled Introduction: The dual use of socio-ecological model and intersectionality theory in health research can embrace the complexity and enhance the predictive value of health behaviors that transcend individual-level behaviors and single social identities. The purpose of the study is to explore the ways in which social-ecological model and intersectional theory have been used together in health research. The specific research question is: "What is the scope of the literature on the dual-use of the socio-ecological model (and it's modified versions) and intersectionality?" Method: The existing literature on health research using social-ecological model and intersectional theory was explored through a scoping review based on Arksey and O' Malley's (2005) scoping framework. The main databases used are PubMed, Embase, CINAHL, Academic Search Premier, etc. The main inclusion criterion is health research that simultaneously uses a form of the socio-ecological model, which is based on Bronfenbrenner's original experimental ecological model, alongside intersectionality theory as a guiding framework. Anticipated Results: The combined use of these theoretical frameworks is more effective in addressing complex health issues than either framework alone. Conclusion: Combining social-ecological model and intersectionality theory enables considering health issues from the perspective of multiple levels and multiple identities to reduce disparities in health risks and to identify the mechanisms of a factor at different levels. This complex perspective assists researchers and related practitioners in gaining a deeper understanding of the health barriers faced by populations with multiple identities at different levels, rather than limiting factors that impede health outcomes to a single level.

Keywords: Social-Ecological Model, Intersectionality, Health Promotion
Research Area: Population Health
Research Method: Qualitative

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