ACCOMPLISHMENT
REPORT

2023/2024

EPID@WORK RESEARCH INSTITUTE (ENHANCING THE PREVENTION OF INJURY AND DISABILITY AT WORK)

EPID at work

Lakehead UNIVERSITY

EPID at work

2023 - 2024

ACCOMPLISHMENT REPORT

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Lakehead
UNIVERSITY

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Introduction

The Enhancing the Prevention of Injury and Disability (EPID) at Work Research Institute at Lakehead University has a mandate to bring people together to reduce work-related injury and disability through collaborative applied research and provision of education to enhance knowledge related to injury and disability prevention. The goals of the Institute are to 1) Conduct, high-quality, community-based, transdisciplinary research in the areas of work-related injury and disability prevention, with a focus on issues relevant to Northwestern Ontario; 2) Participate in, develop, and evaluate integrated knowledge exchange approaches with EPID's community partners and the greater research community participating in all phases of the research process; and 3) Provide an exemplary training and experience opportunity for the next generation of community-based transdisciplinary researchers in Northwestern Ontario and beyond. Information generated from our research informs practice and policies aiming to improve work-related health and social outcomes in Northwestern Ontario and beyond.

The Institute's research focuses on issues important to our local partners in Northwestern Ontario. Our current areas of focus include Workplace Mental Health; Equity, Diversity, and Inclusion (EDI); and Knowledge Mobilization and Implementation (KMI). Our foci areas of mental health and EDI address important challenges for Northwestern Ontario workers and workplaces. Our team of KMI experts build and maintain relationships with our partners to ensure the ongoing reciprocal exchange of information to ensure our research evidence is relevant and timely. The KMI team works with each research project team and individual partners to develop a wide range of products to ensure our research findings are communicated and applied.

MESSAGE FROM THE
DIRECTOR

It is with great pleasure that I present the 2023-24 accomplishments report for the Enhancing the Prevention of Injury & Disability (EPID) @ Work Research Institute.

It was a busy year for the 24 members, 14 staff, 20 part-time research assistants, and 24 student members. This year we launched the largest cohort study on workplace health ever to be conducted in Northwestern Ontario, the "Northwestern Ontario Workplace and Worker Health Study." This study will provide the community and researchers alike detailed local workplace and worker data for priority decision making and answering research questions to guide preventative efforts for the future. You can read more about this study on page 32.

Over the year, EPID researchers held 11 external grants totaling over $10 million and produced 8 peer-reviewed publications, 38 presentations, and 7 knowledge mobilization products. The following pages highlight our accomplishments over the year, and I encourage you to review them.

I'd also like to thank all our partners and collaborators. **Together, we are working to inform workplace health in Northwestern Ontario and beyond.**

Sincerely,

Dr. Vicki Kristman
Director and Senior Scientist
EPID@Work Research Institute
vkristman@lakeheadu.ca

EPID@ WORK YEAR IN NUMBERS

STAFF

12	2	24	24	20
Full-time	Part-time	Trainees	Members	Research Assistants

RESEARCH

38
Research presentations

33
Public engagement opportunities

$10M
Successful external grant funding

8
Peer-reviewed publications

7
Fact sheets, tools, infographics & videos

EPID@ WORK YEAR IN NUMBERS

COMMUNICATIONS

77
Facebook
Followers

716
LinkedIn
Followers

43
Twitter/X
Followers

104
Instagram
Followers

307
Total New
Followers

95,600
Total account reach on Facebook

5,519
Unique website visits to www.workinghealth.ca

280
New email subscribers

48
Instagram posts

15
Social media advertising campaigns

PROJECT
PARTNERSHIPS

Superior Mental Wellness @ Work (Thunder Bay District Health Unit)

Nokiiwin Tribal Council

Thunder Bay Multicultural Association

Institute for Work & Health

Thunder Bay & District Injured Workers Support Group

WSIB

Workplace Safety and Insurance Board of Ontario

JOURNAL
PUBLICATIONS
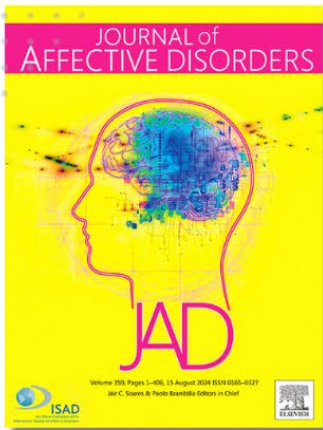
Journal of Affective Disorders Reports

Transportation Research Interdisciplinary Perspectives
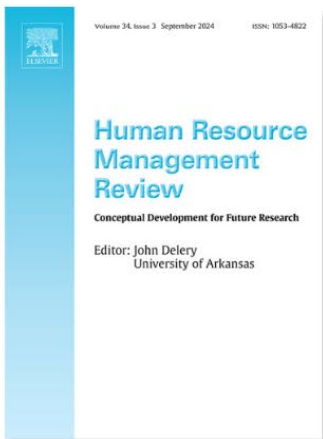
Human Resources Management Review

Journal of Occupational Rehabilitation
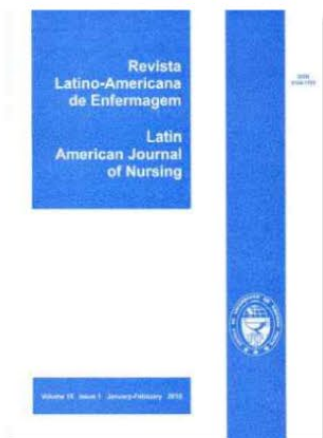
Revista Latino-Americana de Enfermagem
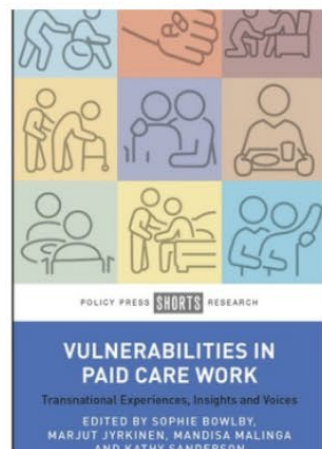
Vulnerabilities in Paid Care Work

AWARDS & HONOURS

Aynsley Klassen

Dean Braun Scholar Award, Lakehead University

Fernanda de Miranda

Best Young Researcher Award WDPI, WDPI Premus

Mannila Sandhu

Research Support Award, Lakehead University

Dr. Deborah Scharf

North2North, Visiting Faculty Scholarship, Norway

Jillian Zitars

Best Learner Poster, St. Joseph's Care Group Showcase of Health Research

Joanne Kao

Best Poster, Research & Innovation Week, Lakehead University

Dr. Vicki Kristman

Merit Award (Research), Lakehead University

Julia Whitney

Best Paper, EDI Division, Administrative Sciences Association of Canada

RESEARCH PROJECTS
BY FOCUS

13
Workplace Mental Health

6
Equity, Diversity, and Inclusion

EPID at work

Lakehead UNIVERSITY

Acronyms

ANOVA – Analysis of Variance
CBI – Copenhagen Burnout Inventory
CERAH – Centre for Education and Research on Aging & Health
CHIRPP – Canadian Hospitals Injury Reporting and Prevention Program
CIHR – Canadian Institutes of Health Research
CIWA – Canadian Injured Workers Alliance
CMHA – Canadian Mental Health Association
CNA – Canadian Nurses Association
CNO – College of Nurses of Ontario
CREIDO – Centre for Research Expertise in Improved Disability Outcomes
CSA – Canadian Standards Association
EMS – Emergency Medical Services
EPID – Enhancing the Prevention of Injury and Disability
HSA – Health and Safety Association
IHSA – Infrastructure Health and Safety Association
IWH – Institute for Work & Health
JASMH – Job Accommodation Scale for Mental Health
KM – Knowledge Mobilization
KMI – Knowledge Mobilization and Implementation
KT – Knowledge Transfer
LGBTI2S – Lesbian, Gay, Bisexual, Transgender, Intersex, and Two Spirit
LISA – Longitudinal and International Survey of Adults
LTC – Long-term Care
LU – Lakehead University
MHD – Mental Health Disorders
MLITSD – Ministry of Labour, Immigration, Training and Skills Development
NOWWHS – Northwestern Ontario Workplace & Worker Health Study
NP – Nurse Practitioner
NTC – National Research Council
NWO – Northwestern Ontario
OFA – Ontario Federation of Agriculture
OHCOW – Occupational Health Clinics for Ontario Workers
OHS – Ontario Health and Safety
OMAFRA – Ontario Ministry of Agriculture, Food and Rural Affairs
OPSEU/SEFPO – Ontario Public Service Employees Union / Syndicat des employés de la fonction publique de l'Ontario
PACE Thunder Bay – People Advocating for Change through Empowerment Thunder Bay
PHAC – Public Health Agency of Canada
PoCA – Poral de Cursos Abertos
PSHSA – Public Services Health and Safety Association
RIA – Research Into Action
RN – Registered Nurse
RNAO – Registered Nurses' Association of Ontario
RPN – Registered Practical Nurse
TBRHSC – Thunder Bay Regional Health Sciences Centre
TwiC – Trial within Cohort

UFSCar – Federal University of São Carlos

WMH – Workplace Mental Health

WRA – Work-related amputation

WSIB – Workplace Safety Insurance Board

WSN – Workplace Safety North

WSPS – Workplace Safety and Prevention Services

Historic Background

The EPID@Work Research Institute was installed as a Research Centre at Lakehead University by the Senate in September 2018. Dr. Vicki Kristman, the founder and Director of the Institute, had been conducting research in the area since she was a student at the Institute for Work & Health in the early 2000s, and then later a post-doctoral fellow at the Centre for Research Expertise in Improved Disability Outcomes (CREIDO) in the late 2000s. In 2011, she worked for a short period as a Scientist at the Workplace Safety & Insurance Board's Occupational Disease, Policy & Research Branch before starting an Assistant Professor position at Lakehead University in August 2011. Much of Dr. Kristman's research at the time was in the areas of musculoskeletal and brain injury and disability. However, within a year of working at Lakehead University, Margaret Cernigoj, who was working with the Workplace Safety and Prevention Services (WSPS), approached Dr. Kristman and emphasized the need for workplace mental health research in Northwestern Ontario. They started a collaboration that led to two successful grant applications on the topic of workplace mental health accommodations. Margaret also connected Dr. Kristman to her professional network, which led to an entirely new research area: Indigenous workplace health and safety. As these programs of research expanded, Dr. Kristman engaged interested faculty at Lakehead University and elsewhere, along with community stakeholders important to these areas to participate in various projects. This led to a core of 18 researchers and 40 partners who worked with Dr. Kristman to apply for formal Research Centre status at Lakehead University in 2018.

Once the Institute received official Research Centre status at Lakehead University, Dr. Kristman initiated conversations with the Ministry of Labour, Training and Skills Development (now named the Ministry of Labour, Immigration, Training and Skills Development (MLITSD)) to seek core funding. The Institute was named a partner in the Province's Occupational Health & Safety System starting Feb 28, 2022.

Research Projects

Workplace Mental Health

Mental health continues to be a strong research focus at the EPID@Work Research Institute. We engage with multiple non-research partners to conduct relevant and timely research to address the challenges of mental health in the workplace. In 2023/24, we completed projects, continued to work on existing projects, and initiated new projects addressing the burden of mental health concerns in various worker populations, identifying associated factors for mental health and resilience, determining the supports available, and evaluating existing interventions.

#1000: Evaluating the Wiiji app to improve Indigenous workplace mental health: A mixed methods approach

Reasons for the project:
Through CIHR's strategic initiative Catalyst Grant – Mental Health Hackathon, we designed an Indigenous e-mental health intervention for the communities of the Nokiiwin Tribal Council to assist Indigenous workers in coping with lateral violence within the workplace – the Wiiji app. In Ojibway, Wiiji means "to help". The app was designed to provide resources regarding mental health, as well as provide a peer-support network for Indigenous workers. Supported workers may be better at coping with negative situations in the workplace. This goal of this project was to implement the app in a strategic fashion to evaluate its effectiveness in improving workplace mental health (WMH) for Indigenous workers.

Objectives of the project:
- Evaluate the effectiveness of the Wiiji app to enhance Indigenous WMH.
- Determine the association between the access to the Wiiji app and WMH in an Indigenous working population.

Methods:
Mixed methods – controlled trial and focus groups

Status: Data collection completed, manuscripts in progress, ongoing KMI
End Date: March 2025

Research Team and roles:
Dr. Vicki Kristman (Principal Investigator)
Dr. Christopher Mushquash (Co-investigator)
Dr. Robyn O'Loughlin (Co-investigator)
Ms. Audrey Gilbeau (Collaborator)
Ms. Mannila Sandhu (Project Coordinator)
Ms. Emily Boyko (Research Assistant)
Ms. Dana Korten (Research Assistant)
Ms. Nadia Makar Abdel Messih (Research Assistant)

Collaborators and Partners:
Nokiiwin Tribal Council

Knowledge Transfer Strategies:

Dissemination through EPID Talks, publications, lay persons reports; further strategies to be developed by the EPID Knowledge Mobilization and Implementation group.

Target Audience:
These results will be most significant to Nokiiwin Tribal Council community members, including workers and employers. The results could be translated to other Indigenous communities or workplace settings potentially.

Linkage to MLITSD's Prevention Works Strategy:
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☐ Objective 2: Improve OHS knowledge and practices
☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Funders: CIHR – Project Scheme
Amount: $367,200
Date: 2020 - 2025

Project findings available in Open Access journals, platforms, or repositories:
In Draft phase

Related Research Summaries:
Infographic - Comic strip: Wiiji PeerConnect App Evaluation
Infographic - Academic poster: Wiiji Peer Support App and Indigenous Workplace Mental Health

Interviews and Articles:
Two community champions of this study were interviewed, and it was presented to the study participants. In addition, the interview videos will be advertised on EPID@Work and the Nokiiwin Tribal Council social media channels for non-participants.

Kristman VL, Sandhu M. In preparation: Wiiji peer support app and Indigenous workplace mental health. To be submitted to the Lancet Global Health.

Messih NMA, Sandhu M, Kristman VL. In preparation: PeerConnect: A process evaluation of a phone app designed to support Indigenous mental health in the workplace. To be submitted to BMC Psychiatry.

Presentations:
Kristman VL, Sandhu M, Gilbeau A. "Wiiji PeerConnect App Evaluation study's conclusion". Internal Virtual Event, Enhancing Prevention of Injury and Disability @ Work (EPID@Work) Research Institute, April 2023. (Oral presentation)

Kristman VL, Sandhu M, Gilbeau A. Wiiji peer support app and Indigenous workplace mental health. 2023 CSEB Conference, Halifax, Nova Scotia, June 2023. (Poster presentation)

Kristman VL, Sandhu M, Gilbeau A. Wiiji peer support app and Indigenous workplace mental health. PREMUS & WDPI, Bengaluru, India, September 2023. (Virtual oral presentation)

Messih NMA, Sandhu M, Gilbeau A, Kristman V. Wiiji PeerConnect: Evaluating an Indigenous workplace mental health app. 2024 Showcase of Health Research, Italian Cultural Centre, Thunder Bay, February 2024. (Poster presentation)

#1003: Emotional Abuse at Work: An International Partnership

Reasons for the project:
This project will formalize a research partnership between Lakehead University and the University of Helsinki.

Objectives of the project:
Formalize partnership with University of Helsinki.

Methods:
Develop a Memorandum of Understanding between Lakehead University and University of Helsinki.

Status: Completed
End Date: September 2023

Research Team and roles:
Dr. Kathy Sanderson (Principal Investigator)
Dr. Marjut Jyrkinen, University of Helsinki, (Co-Investigator),
Dr. Elina Penttinen, University of Helsinki, (Co-Investigator)

Collaborators and Partners:
Partnership with Lakehead University and University of Helsinki

Knowledge Transfer Strategies:
Internal communications to encourage additional partnerships between the two organizations.

Target Audience:
Academic Researchers

Linkage to MLITSD's *Prevention Works* Strategy:
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Funders: Lakehead University Vice-President of Research and Innovation, International Research Partnership Award
Amount: $9,315

Related Research Summaries:
The authors met during this period in Helsinki, Finland, as well as virtually. A draft memorandum for the project has been drafted but still needs to be approved. However, as the two universities are partners on another project, there is a research agreement for a subsequent project.

#1004: Emotional Abuse at Work: Violations of Workplace Psychological Safety

Reasons for the project:
Emotional abuse is a form of workplace violence and harassment. This project will provide data for future collaborations, including those with other Lakehead University researchers who are scientists with EPID@Work and partners at the University of Helsinki. Areas of exploration include abusive supervision, mental health strain, and workplace stigma.

Objectives of the project:
- Identify factors that enable workplace emotional abuse at work
- Provide recommendations for researchers working with traumatized research participants

Methods:
Qualitative. 70 interviews conducted internationally with employees who identified experiencing emotional abuse. Narrative and thematic analysis.

Status: Ongoing
End Date: March 2025

Research Team and roles:
Dr. Kathy Sanderson (Principal Investigator)
Dr. Marjut Jyrkinen, University of Helsinki, (Co-Investigator)
Dr. Elina Penttinen, University of Helsinki, (Co-Investigator)

Collaborators and Partners:
Partnership with Lakehead University and University of Helsinki

Knowledge Transfer Strategies:
International Conferences, Academic Publications, EPID Talks

Target Audience:
Employees experiencing emotional abuse, researchers working with traumatized individuals. This project is addressing unhealthy organizational responses as well as the stressors and risks to researchers who are exposed to ongoing secondary trauma.

Linkage to MLITSD's *Prevention Works* Strategy:
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective: Improve OHS knowledge and practices
☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Funders: Lakehead University VPRI Strategic Fund
Amount: $7,000

Project findings available in Open Access journals, platforms, or repositories:
Two papers are in development; to be submitted to Human Resources Review Journal and Qualitative Research in Organizations and Management: An International Journal.

Related Research Summaries:
(Un)Caring: This article investigates organizational responses to claims of inappropriate behaviour in the workplace, with a focus on the reactions of Human Resources (HR) professionals and other responsible parties when targets of abuse seek safety and support. Our research addresses the question, "What happened then?" upon HR and leadership becoming aware of abusive behaviour reports. We aim to understand the experiences of emotionally harmed employees and the subsequent actions taken by those with the authority to intervene. Additionally, we examine the applicability and effectiveness of the principles of a "caring organization" in preventing and addressing emotional workplace abuse.

Safeguarding: This paper aims to illuminate the challenges researchers encounter when conducting organizational studies involving trauma. Situated within the broader context of prevalent workplace traumas and abuses—illustrated by movements such as #MeToo, #BLM, and #StopAsianHate—it connects these issues to the current social climate impacting organizations. The significance of this research lies in its focus on sensitive, underexplored topics that are critical for organizational learning. The paper addresses the limitations of reflexivity and discusses the role of research ethics boards in supporting and protecting researchers.

Interviews and Articles:
Sanderson K & Jyrkinen M. In preparation: What Happened Then? (Un)Caring Organizational Responses to Emotional Workplace Abuse. To be submitted to Human Resources Review Journal, July 2024.

Sanderson K & Pentitnen E. In preparation: Safeguarding Researchers of Organizational Trauma. To be submitted to Qualitative Research in Organizations and Management: An International Journal, December 2024.

#1006: Evaluating Burnout and Mental Health Among Nurses in Northwestern Ontario: A 3-Phase Dissertation Proposal

URL: www.workinghealth.ca

Reasons for the project:
The dissertation proposal addresses a long-standing problem regarding nurses working within stressful and demanding environments. Unhealthy work environments subject nurses to stress-related mental health concerns, such as burnout. The prevalence of burnout among nurses in all practice settings is alarming, with an estimated one-tenth of nurses worldwide said to be suffering from severe burnout levels. This is concerning as burnout affects nurses, patients, and the health care system. These high rates of burnout are occurring at a time where there is a serious shortage of nurses, which is expected to continue to grow. Efforts are urgently needed to address the factors associated with burnout among nurses to recruit, retain, and mitigate burnout. Not only will this produce a healthier, more sustainable nursing workforce, but impacts at the patient and organizational levels are also possible. Numerous factors (e.g., work-related, personal, organizational) have been identified as contributing to burnout. However, the use of cross-sectional designs for most studies has limited our knowledge of whether a factor precedes burnout or not (i.e., temporal relationship). Cross-sectional studies have been foundational in identifying the problem exists and what the strength of the relationships are between various factors and burnout. However, it is imperative to move beyond cross-sectional designs to better examine what factors may predict/protect nurses from burnout using a longitudinal design. Thus, the research question for the dissertation is to examine which work-related factors predict or protect nurses from burnout among a sample from Northwestern Ontario? The main objectives of the study are to 1) Calculate the incidence of burnout among nurses from baseline to 6 months, and 2) Determine which factors predict or protect against nurses' burnout from baseline to 6 months.

Objectives of the project:
- To assess the psychometric properties (reliability, validity) of the Copenhagen Burnout Inventory (CBI) among nurses working in Northwestern Ontario.
- Determine the prevalence of burnout, mental health, and mental health conditions that co-occur with burnout.
- Describe the current state of the nursing practice environment.
- Calculate incidence of burnout from baseline to six months.
- Describe the trends of how work-related factors and work-related burnout change from baseline to six months.
- Examine the association between baseline work-related factors and work-related burnout at six months.
- Determine which factors (work-related and/or personal) predict or protect nurses' work-related burnout six months later.

Methods:
A prospective cohort study will be conducted to examine predictors and protectors of burnout among a sample of nurses in Northwestern Ontario. The nursing cohort is part of the cohort study (NOWWHS) conducted by the Enhancing the Prevention of Injury and Disability at Work (EPID@Work) Research Institute. The plan is to recruit 800 eligible nurses to complete a baseline survey and follow-up survey at 6 months. The surveys consist of many variables and validated measurement tools to evaluate burnout, mental health, personal factors (age, years of experience, gender, race/ethnicity, personality), general work-related factors, and nursing work-related factors. The general work-related factors are based on the

National Standard for Psychological Health and Safety in the Workplace by the Mental Health Commission of Canada, and include leadership and expectations, organizational culture, civility and respect, bullying/harassment, psychological and social support, growth and development, recognition and reward, involvement and influence, job engagement, work/life balance, and psychological protection in the workplace. Nursing work-related factors will be more specific to nurses' work environments, and include stress associated with aspects of nursing (e.g., death and dying, conflict with doctors, inadequate emotional preparation, workload, patients, and family demands) and factors that enhance or restrict nurses practice in delivering care (e.g., nurse participation in hospital affairs, staffing and resource adequacy, nursing foundations of quality care). We invited feedback on our survey from local and district nursing leaders in Northwestern Ontario to ensure this study was relevant and applicable to their nurses.

Status: Ongoing
Start Date: February 2024
End Date: December 2025

Research Team and roles:
Ainsley Miller (PhD Student)
Dr. Vicki Kristman (Supervisor)
Dr. Lynn Martin (Committee Member)
Dr. Deborah Scharf (Committee Member)

Collaborators and Partners:
Consultations conducted with Ministry of Health and hospitals in Northwestern Ontario (Thunder Bay Regional Health Sciences Centre, St. Joseph's Care Group, Nipigon District hospital, Geraldton hospital, Atikokan hospital, Dryden hospital)

Knowledge Transfer Strategies:
Dissemination back to nurses and healthcare organizations by generating workplace reports specific to each organization, presentations for healthcare organizations, recommendations for improving mental health in the workplace via infographics, posters, etc. Academic dissemination via publications of manuscripts, conference presentations within the Northwestern region and beyond, and EPID@Work Research Institute's Quarterly "EPID Talks". Lastly, connect with larger nursing organizations (RNAO, CNO, CNA), and hope to be able to disseminate findings through those channels.

Target Audience:
Employees and employers

Linkage to MLITSD's Prevention Works Strategy:
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☒ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Funders: Ontario Graduate Scholarship 2021, 2022, EPID@Work Research Institute
Amount: $35,000

Project findings available in Open Access journals, platforms, or repositories:

Articles will be submitted to a nursing journal, such as: Journal of Advanced Nursing, Nursing Outlook, Nursing Standard, Journal of Research in Nursing.

Related Research Summaries:

We are in the process of recruiting nurses (RN, RPN, and NP) within Northwestern Ontario. Approximately 90 nurses have participated in the study so far. An amendment to the research ethics board is currently pending as we will be offering an incentive to nurses who complete the survey. After the amendment is accepted, recruitment initiatives will be increased through the forms of social media advertising, posters, lunch-and-learns at various hospitals, and dissemination of the survey via e-link. The sample size goal is 700 nurses which we hope to achieve by the end of August.

Interviews and Articles:

Miller A, Kristman VL. In preparation: Validation of the Copenhagen Burnout Inventory (CBI) Among Nurses in Northwestern Ontario.

Miller A, Kristman, VL. In preparation: A Cross-Sectional Analysis of Nurses' Work Environments, Burnout, and Mental Health In Northwestern Ontario.

#1007: Mental Health of Immigrant Workers in Ontario Workplaces: A Mixed-Method Study

Reasons for the project:

Immigrant workers form a significant portion of the Ontario and Canadian workforce. Workers' mental health is associated with increased productivity and optimum service delivery. Immigrants are more prone to developing mental conditions due to economic instability, unemployment, difficulties in coping in a new country, language and cultural barriers, separation with family members, being positioned in the ethnic minority group, and racism. Mental illness among immigrant workers may jeopardize the social and economic purpose of immigration while causing stress on the health system. In this context, we propose a mixed-method study to determine the incidence of mental health problems among immigrant workers in Northwestern Ontario and to identify the workplace psychosocial factors most predictive of positive and negative workplace mental health.

Objectives of the project:

1. To determine the prevalence and incidence of mental health problems among immigrant workers in Northwestern Ontario workplaces.
2. To identify the workplace psychosocial factors predictive of positive and negative mental health of immigrant workers.
3. To acquire an in-depth understanding of the experience of immigrant workers at workplaces in Northwestern Ontario as well as the workplace psychosocial factors related to their mental health.

Methods:

A mixed-method approach will be used to meet our study objectives. This will involve a cohort study to understand the association between workplace psychosocial factors and mental health outcomes. Any immigrant worker aged fourteen or greater and who has worked in paid employment within the last year is eligible to participate. The baseline data collection started on 28th September 2023. The calculated sample size for the study is 370. Participants may sign up individually or through their workplace to take the survey. At the six-month follow-up, the participants will complete the same survey. The Primary Exposure Variables are the workplace factors and the primary outcome variables are work-related burnout, anxiety, and depression. All the statistical analyses will be performed in STATA.

At the end of the survey in Qualtrics, the participants will be asked whether they would be willing to be included in an interview to share their workplace experiences. The qualitative data will be coded and analyzed using Nvivo software. We assume that at least twenty participants need to be interviewed to reach data saturation.

Status: Ongoing
Start Date: September 2023
End Date: December 2025

Research Team and roles:
Umme Saika Kabir (PhD student)
Dr. Vicki Kristman (Supervisor)

Collaborators and Partners:
Thunder Bay Multicultural Association

Knowledge Transfer Strategies:
Findings will be made available to both stakeholder groups and individual participants through the publicly available EPID Talks seminar series, our website, and various social media channels. Research papers will be submitted for publication in open-access academic journals, and we intend to present findings at local, provincial, and national conferences through poster presentations, infographics, and other means.

Target Audience:
Ministry of Labor, Training and Skills Development, employers and HR professionals, immigrant advocacy organizations, and immigrant workers.

Linkage to MLITSD's *Prevention Works* Strategy**:**
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☒ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Funders: EPID@Work Research Institute
Amount: $5,000

Project findings available in Open Access journals, platforms, or repositories: Yes

Related Research Summaries:
The data collection for the project started on 28th September. We applied for a CIHR project grant in March to support the study over the next two years. For recruiting the participants, the KMI team has prepared some materials dedicated to the immigrant workers only. We consulted with the Thunder Bay Multicultural Association, Newcomer Legal Clinic, Thunder Bay Injured Workers' Association, and LUSU to accelerate the participation of immigrant workers. A community event was held at the Thunder Bay Public Library on 6th March 2024 to increase the enrollment of immigrant workers. As per the data linkage on 10th June 2024, ninety-four immigrant workers completed the survey and among them, twenty-one respondents consented to a qualitative interview.

#1009: The Relationship Between Sex, Gender, and Workplace Accommodations Among Workers with Mental Health Disorders

URL: https://knowledgecommons.lakeheadu.ca/handle/2453/5274

Reasons for the project:
Among the Canadian working population, 21.4% experience mental health problems, which accounts for around 30% of both short and long-term disability claims with a total cost to the Canadian economy of at least 50 billion per year. Employers can contribute either positively or negatively to a worker's mental health. Positive contributions by employers could include promoting work-life balance, implementing job modifications to enable workers to keep working, and providing support to workers with mental health problems. When workers with mental health disorders are presented with their desired accommodations, it is likely that they will feel better understood by their employers and feel better equipped to continue working in situations where those without accommodations may have needed to quit.

Objectives of the project:
- Determine the association between worker sex and the perceived helpfulness of workplace accommodations for workers with mental health disorders.
- Explore the association between gender roles and the perceived helpfulness of workplace accommodations.

Methods:
We examined the results of a cross-sectional survey of employees from 31 workplaces across Manitoba and Northwestern Ontario. Perceived accommodation helpfulness was determined from the responses on a 4-point scale of various accommodations found in the Job Accommodation Scale for Mental Health (JASMH). Sex was the main exposure of interest for our first objective, with other demographic variables examined for confounding. Our secondary objective examined if the association from objective one was modified by the gendered composition of a worker's occupation. Analyses were performed using multilevel mixed effects regression.

Status: Completed
Start Date: September 2018
End Date: January 2024

Research Team and roles:
Helen Otterman (MSc student)
Dr. Vicki Kristman, (Supervisor)

Collaborators and Partners:
None

Knowledge Transfer Strategies:
Dissemination via EPID@Work Research Institute's Quarterly "EPID Talks", further strategies to be determined by KMI group.

Target Audience:
Employers and employees.

Linkage to MLITSD's *Prevention Works* Strategy**:**
☐ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
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☒ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Project findings available in Open Access journals, platforms, or repositories:
In preparation, to be submitted to Annals of Work Exposures and Health.

Related Research Summaries:
Background: Mental health disorders (MHDs) are characterized by disturbances in cognition, emotion regulation, or behaviour resulting from various factors. MHDs have significant economic and personal costs and are responsible for the highest non-communicable disability adjusted life years lost. Workers with MHDs are often able to continue working though a MHD or return to work after an absence from a MHD with the provision of workplace accommodations. In female dominated jobs workers may be more willing to request accommodations related to work scheduling, where part-time work schedules are more common. Conversely, the occupational culture in male dominated workplaces may discourage both men and women from requesting workplace accommodations, especially for mental health disorders which can be particularly stigmatizing to disclose. Occupational disparities rooted in societal gender roles, lead to inequalities in working conditions between men and women. Understanding factors relating to accommodation preference and providing necessary workplace accommodations are crucial in promoting mental health and ensuring equitable employment opportunities. The aim of this stud is to determine if the association between sex and accommodation helpfulness is modified by the gendered composition of a worker's job.

Methods: We analyzed data from a cross-sectional survey distributed among employees in 31 workplaces spanning Manitoba and Northwestern Ontario. The outcome, perceived helpfulness of accommodations, was assessed for workers with mental health disorders, using a 4-point scale based on responses to the Job Accommodation Scale for Mental Health (JASMH). Specific subsets of this scale, including work schedule, physical environment, on-job duties, and psychosocial factors, were compared. Our primary focus was on examining the differences in perceived helpfulness of workplace accommodations by sex, while examining if this relationship was modified by the gendered composition of a worker's occupation. Analytical procedures involved stratified multilevel mixed-effects regression using Stata.

Results: There were 227 workers with mental health disorders in our sample; 102 males in male dominated occupations, 15 males in female dominated occupations, 17 females in male dominated occupations, and 93 females in female dominated occupations. Overall, when stratified by gendered composition of an employee's job, females rated the helpfulness of workplace accommodations higher than males, and higher in male dominated jobs. The significance of the relationship between sex and helpfulness of accommodation changed for various accommodation types, indicating that effect modification was a factor in the association between sex and perceived helpfulness of accommodations. When examining specific types of accommodations, significant differences were observed between males and females; females in male dominated jobs found accommodations related to flexible work

schedules to be significantly more helpful, rating them 0.54 points higher than males, while females in female dominated jobs rated them 0.50 points higher than males. Accommodations related to changing the physical workplace environment, on-job duties, or psychosocial adjustments were not significantly different after stratification.

Conclusion: The results from this study indicate that females with MHDs find workplace accommodations related to work scheduling more helpful than males in both male and female dominated jobs. In addition, it appears that the gendered composition of a worker's job may modify the relationship between sex and perceived helpfulness of accommodations. This further clarifies the importance of considering the intersection between occupational and sociodemographic characteristics in accommodation and mental health research.

Interviews and Articles:
Otterman H, Kristman VL. In preparation: The relationship between sex, gender, and workplace accommodations among workers with mental health disorders. To be submitted to: Annals of Work Exposures and Health.

#1010 Needs Assessment of Workplace Mental Health in Thunder Bay and District: Impact of the COVID-19 Pandemic

Reasons for the project:

The COVID-19 pandemic has had an impact on population mental health. In 2018, we distributed a survey to determine the impact of a community-based intervention. That survey provided us with measures of employers regarding the current state of workplace mental health and stigma. We wished to compare workplace mental health and stigma now to that before Covid-19 and understand the current needs within occupational mental health locally. The goal of this initiative was to create workplace environments that reduce psychological hazards and maintain positive mental health for employees in Thunder Bay and the District.

Objectives of the project:

To gain deeper insights into employers' perceptions of the alterations in the workplace mental health (WMH) and stigma during the pandemic. To better understand the current needs of local workplaces regarding WMH.

Methods:

Two cross-sectional studies were conducted through online surveys in the City of Thunder Bay and District located in Northwestern Ontario, Canada. The online pre-pandemic survey was available between September 2016 and November 2016. A different set of employer respondents completed the post-pandemic survey between November 2022 and March 2023. The results of these two cross-sectional surveys were compared to understand changes in WMH and stigma, and changes in need for interventions, from the perspective of employers.

Status: Completed
Start Date: August 2022
End Date: October 2023

Research Team and roles:
Dr. Vicki Kristman (Principal Investigator)
Mrs. Lynda Fraser (co-investigator)
Ms. Heather Poulter (co-investigator)
Ms. Emily Boyko (Research Staff)
Umme Saika Kabir (Research Assistant)
Claudia Czechowski (Research Assistant)

Collaborators and Partners:

Superior Mental Wellness @ Work group led by the Thunder Bay District Health Unit (Current members include Canadian Mental Health Association, City of Thunder Bay, Creighton Youth Services, DST Engineering Group, Lakehead University, PACE Thunder Bay, TBT Engineering, Thunder Bay Counselling Centre, Thunder Bay District Health Unit, St. Joseph's Care Group, Unifor Union 229, Workplace Safety and Prevention Services).

Knowledge Transfer Strategies:

Dissemination through EPID Talks, publications, lay persons reports. A manuscript is drafted and about to be submitted.

Target Audience:
Audience includes local workplaces, Thunder Bay District Health Unit, Superior Mental Wellness @ Work group.

Linkage to MLITSD's *Prevention Works* Strategy**:**
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☒ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☒ Objective 4: Make OHS easier for small businesses

Funders: 36.4% Lakehead University Graduate Assistantship & 63.6% MLITSD
Amount: $20,000

Project findings available in Open Access journals, platforms, or repositories:
Manuscript drafted; to be submitted to BMC Public Health.

Related Research Summaries:
Background: Mental health conditions are a leading cause of workplace disability. The recent COVID-19 pandemic impacted organizations and the working population globally and resulted in widespread organizational changes. In this context, the primary objectives of this study were 1) to gain deeper insights into employers' perceptions of the alterations in workplace mental health (WMH) and stigma during the pandemic, and 2) to better understand the current needs of local workplaces regarding WMH.
Methods: Two cross-sectional studies were conducted through online surveys of employer representatives in the City of Thunder Bay and District located in Northwestern Ontario, Canada. The online pre-pandemic survey was available between April 2018 and July 2018. A different set of employer respondents completed the post-pandemic survey between November 2022 and March 2023. The results of these two cross-sectional surveys were compared to understand employer perspectives on WMH and stigma at the community level, and changes in need for interventions.
Results: There were 83 participants in both pre-and post-pandemic surveys. Most were female, employed in upper and middle management, and were working for more than 10 years in their current workplace. Overall, post-pandemic survey respondents mentioned poorer mental health compared to the pre-pandemic sample. WMH was a higher priority in organizations who participated after the pandemic than before. WMH was the top priority in 25% of workplaces in the post-pandemic sample. Most of the participants (61%) in the pre-pandemic survey were interested in strategies for promoting and preventing mental health concerns, whereas 62% of the post-pandemic respondents exhibited an interest in knowing about strategies for managing chronic stress and burnout. In the post-pandemic group, online resources became a more popular means of acquiring knowledge on WMH. However, both the pre-and post-pandemic samples exhibited a lack of knowledge on the legal aspects of WMH.
Conclusions: The study provides insight into the WMH needs of employers pre- and post-pandemic. As we move forward, it is imperative that organizations continue to prioritize WMH, provide ongoing efforts to destigmatize mental health issues, foster a culture of open communication, and invest in employee support systems.

Interviews and Articles:
Kabir US, Czechowski CJ, Fraser L, & Kristman VL. To be submitted to BMC Public Health: Needs Assessment of Workplace Mental Health: Impact of the COVID-19 Pandemic. 2024.

Presentations:
Fraser L, Kristman VL. Superior Mental Wellness@Work – Working Together to Promote Workplace Mental Health. C2U (Community-College-University) Expo 2023, Lakehead University, Thunder Bay, Ontario, June 5-8, 2023. (Podium presentation)

#1011: Mental Health Stigma in the Workplace: The Role of Organizational Culture and Climate

Reasons for the project:
Our study will provide new insights into the lived experiences of those who are off work due to mental health issues, considering mental health disclosure, and those who have successfully returned to work following a mental health leave.

Objectives of the project:
The overarching objective of our study is to deepen the understanding of the perceived stigma that is associated with mental health in the workplace in Northwestern Ontario This project will provide a deeper understanding of the lived experience of those who experience mental health stigma at work and the factors that encourage or inhibit protection, support, and disclosure.

Methods:
In-depth interviews will be conducted with 60 adults in Northwestern Ontario.

Status: Ongoing
End Date: March 2025

Research Team and roles:
Dr. Kathy Sanderson (Principal Investigator)
Dr. Abigaile Sprakes (Co-Principal Investigator)
Research Assistants and Interviewers

Collaborators and Partners:
Superior Mental Wellness at Work Steering Committee

Knowledge Transfer Strategies:
The project will use a multi-platform dissemination strategy that includes academic, and practitioner-based outlets. In addition to publications, we will share the knowledge through workshops, webinars, online platforms, and conference presentations.

Target Audience:
Workplaces, academics, health and safety practitioners, employees

Linkage to MLITSD's *Prevention Works* Strategy:
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Funders: MLITSD via EPID@Work
Amount: $87,900

Project findings available in Open Access journals, platforms, or repositories:
An academic article is in progress.

Related Research Summaries:
This study was the basis for a video, poster, and management information sheet to be developed with the Superior Mental Wellness at Work group. To be launched in 2024.

The coding of all the interviews (55) has been completed. The process of analyzing the specific themes has begun but a focus or a journal has not been identified yet. A meeting is scheduled in June 2024 to move this article forward. The majority of the work so far has been for the video development; the comments related to coworker and supervisor support/lack of support has been extracted and that formed the content for the video.

#1023: Mental Health of Working Seniors in Canada: Prevalence and Determinants of Anxiety and Depression

URL: https://rp.tandfonline.com/dashboard/

Reasons for the project:
Given the lack of Canadian research in this area, this study aims to examine the mental health effects of working past the traditional retirement age, particularly its impact on depression and anxiety. Understanding this relationship is crucial for policy development and future research into the social dynamics of work, aging, and mental health.

Objectives of the project:
Specifically, the study has three objectives: (1) determine the prevalence of self-reported depression and anxiety in Canadians 65+, (2) explore the association between age, socioeconomic position, work, work stress, and these mental disorders, and (3) examine whether self-identified sex modifies the relationship between the predictor variables and mental disorders.

Methods:
This is a quantitative study of Canadian seniors over the age of 65 years. A subsample of (N= 65,033) seniors was drawn from repeated national Canadian Community Health Surveys from 2013 to 2018. A logistic regression model was applied to identify factors associated with depression and anxiety. Prevalence estimates and adjusted odds ratios are reported.

Status: Completed
Start Date: March 2023
End Date: March 2024

Research Team and roles:
Dr. Batholomew Chireh (Principal Investigator)
Dr. Samuel Kwaku Essien (Co-Investigator)

Collaborators and Partners:
CIHR, Ontario Workplace Safety Insurance Board, Ontario Centre for Learning Research, Ontario Ministry of Labour, Immigration, Training, and Skills Development, labour unions and the various workplaces (both public and private).

Knowledge Transfer Strategies:
Dissemination through EPID Talks, publications, and lay persons' reports; further strategies to be developed by the EPID Knowledge Mobilization and Implementation group.

Target Audience:
These results will be most significant to all senior worker organizations, including workers and employers. The results could be beneficial to all workers across Canada. The significance would be the recommendation for workplace mental health screening and prevention strategies to be incorporated into senior staff well-being in Canada.

Linkage to MLITSD's *Prevention Works* Strategy**:**

☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight

☒ Objective 2: Improve OHS knowledge and practices

☒ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence

☐ Objective 4: Make OHS easier for small businesses

Project findings available in Open Access journals, platforms, or repositories:
Findings from this research have been submitted to Aging and Mental Health Journal.

Related Research Summaries:

Objectives: This study examines the mental health of Canadian seniors (65+ years) identifying the factors influencing depression and anxiety. **Methods***:* A subsample of (N= 65,033) seniors was drawn from repeated national Canadian Community Health Surveys from 2013 to 2018. A logistic regression model was applied to identify factors associated with depression and anxiety. Prevalence estimates and adjusted odds ratios are reported. **Results***:* The prevalence of depression and anxiety were 6.9% and 5.3% respectively. We found that paid work is protective against both mental disorders. Full-time work was protective for depression (OR=0.59, 95% CI: 0.50–0.69) and anxiety (OR=0.58, 95% CI: 0.48–0.71). Older age (75+) was protective for depression (OR=0.52, 95% CI: 0.48–0.56) and anxiety (OR=0.54, 95% CI: 0.49–0.59). High work stress was a significant risk factor for both mental disorders [(OR=1.36, 95% CI: 1.13–1.64), and (OR=1.33, 95% CI: 1.07–1.65, respectively)]. Being female, single, a current smoker, and multimorbidity were statistically significant risk factors for both depression and anxiety while higher income status and being non-white were protective factors. **Conclusion:** Our findings emphasize the positive mental health benefits of paid work past age 65+ and its obvious financial benefit.

Interviews and Articles:
Chireh B, Essien SK, Afful A, and D'Arcy C. Under review: The positive impact of paid work on the mental health of Canadians 65+ years, 2013-2018. Aging and Mental Health Journal. 2024.

Presentations:
Chireh B. Canadian Society for Epidemiology and Biostatistics (CSEB) Biennial Conference. Determinants of Mental Disorders among working seniors: insights from the Canadian community health surveys. Halifax, Nova Scotia, June 2023.

Chireh B. The Mental Health of Working Seniors: Prevalence and determinants of depression and anxiety disorders. 55+ Centre, Thunder Bay, March 2024.

#2001: Northwestern Ontario Workplace and Worker Health Study (NOWWHS)

URL: https://www.workinghealth.ca/

Reasons for the project:
Post-pandemic mental health issues are on the rise. How much of these are related to work? What workplace factors are longitudinally associated with reduced workplace mental wellness and mental health disorders? What can workplaces do to improve the mental wellbeing of their workers post-pandemic? These are some of the questions this long-term regional study hopes to investigate.

Objectives of the project:
- Investigate the prevalence and incidence of mental wellbeing and mental illness in Northwestern Ontario workplaces over time
- Determine the workplace (i.e., OHS and organizational culture) and worker (i.e., personal lifestyle factors) risk factors associated with mental wellbeing and mental illness in Northwestern Ontario workplaces
- Develop and evaluate interventions addressing workplace and worker risk factors for mental wellbeing and mental illness in Northwestern Ontario workplaces

Methods:
Cohort study designed to accommodate trials (Trial within Cohort (TwiC) study design). Participating employers must have at least one employee and be in Northwestern Ontario. Participating workers must have worked in the past year for a salary or would like to have worked in the past year but were unable to due to a workplace injury or illness. There are three methods of recruitment for this study:
1) Random selection of employers through two methods: 1) business database; and 2) Schedule I employers (random selection conducted by the WSIB); if they agree to participate, all their employees will be invited to participate
2) Employers may volunteer for the study meaning all their employees will be invited to participate
3) Individual workers may volunteer to participate in the study

Exposure factors, mental health and overall health variables will be collected at baseline and every six months thereafter.

Status: Ongoing
Start Date: October 2023
End Date: September 2029

Research Team and roles:
Dr. Vicki Kristman (Principal Investigator)
Dr. Deb Scharff (Co-investigator)
Dr. Monique Gignac (Co-investigator)
Dr. Peter Smith (Co-investigator)
Dr. Batholomew Chireh (Co-investigator)
Dr. Sam Essien (Co-investigator)
Vanessa Nichols (Project Coordinator/Research Assistant)
Claudia Czechowski (Project Coordinator/Research Assistant)
Nolan Maenpaa (Project Coordinator/Research Assistant)
Mannila Sandhu (Research Assistant)
Foruzan Bahrami (Research Assistant)

Maryam Einshouka (Research Assistant)
Thanusan Sooriyakumar (Research Assistant)
Kristen McConnell (Research Assistant)
Chantee Steinberg (Research Assistant)
Kayla Kubinec (Research Assistant)
Umme Saika Kabir (PhD Student)
Kara Polson (PhD Student)
Ainsley Miller (PhD Student)
Anika Tahsin (MSc student; Graduate Assistant)
Jazanne Bunting (MSc Student; Graduate Assistant)
Shanuga Rajkumar (Graduate Assistant)

Collaborators and Partners:
- Health and Safety Partners (WSN, IHSA, PSHSA, WSPS, OHCOW, WSIB)
- Mining Sector (Ontario Mining Association, Impala Canada, Evolution Mining, Newmont, New Gold Inc., Treasury Metals, Ring of Fire Metals)
- Paramedics (Superior North EMS, Ornge Air Ambulance, SkyCare, Rainy River District Social Services Administration Board, Kenora District Social Board)
- Thunder Bay Injured Workers Support Group
- Government (MLITSD, Ministry of Health)
- Healthcare (Chief Nursing Officer of Ontario, Thunder Bay Regional Health Sciences Centre, Lake of the Woods District Hospital, Nipigon District Memorial Hospital, Dryden Regional Health Centre, St. Joseph's Care Group)
- Construction (NWO Labour Management, Construction Association of Thunder Bay, Plumbers, Pipefitters)
- Skilled Trades Ontario
- Indigenous Communities (Nokiiwin Tribal Council, G'Minoomaadozimin Steering Committee)
- Superior Mental Wellness@Work Steering Committee

Knowledge Transfer Strategies:
Integrated Knowledge Transfer has been used to design and build the study. This continues through Community/Partner Consultations and Presentations; will work with KMI team for further ongoing strategies.

Target Audience:
Northwestern Ontario workplaces, workers, unions, healthcare providers, health and safety associations, workers' compensation, Ministry officials

Linkage to MLITSD's *Prevention Works* Strategy**:**
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☒ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☒ Objective 4: Make OHS easier for small businesses

Funders: MLITSD; application to CIHR submitted March 2024 (requested $2,810,000)
Amount: $302,525
Date: September 2023

Project findings available in Open Access journals, platforms, or repositories: Yes

Related Research Summaries:
The Canadian workforce is facing a profound workforce crisis, with many workers opting to leave, reduce their work hours, or retire prematurely due to workload and unfavourable working conditions leading to reduced health. Our research recently found that 62% of employers rate their employee health as fair or poor. In Canada, the National Standard for psychological health and safety in the workplace was developed to identify and address psychosocial workplace factors; however, we recently found that 34% of employers are not at all familiar with it, and of those that are, only 8% have a plan developed. There is significant overlap among the 13 factors identified in the Standard. Additionally, Smith & Oudyk (2022) demonstrated how the Guarding Minds @ Work measurement tool recommended with the Standard fails to identify the dimensions of the work environment that require attention from employers. Further, the Standard was developed from primarily cross-sectional evidence. Therefore, we proposed a novel longitudinal cohort study partnering with workplace participants to 1) determine the prevalence and incidence of mental health outcomes within workplaces; 2) determine the workplace risk factors associated with mental health outcomes; and 3) explore the effectiveness of existing interventions. We will establish a cohort of workplaces and workers for surveillance, prognostication, and intervention assessment in Northwestern Ontario workplaces. This research will produce an in-depth understanding of 1) the burden of mental disorder within workers and workplaces; 2) identify a core set of independent prognostic indicators for workplace well-being; and 3) evaluate existing interventions offered by Ontario's occupational health and safety system partners. By identifying and addressing workplace psychosocial challenges within workplaces, this research will ultimately strengthen the occupational health system's capacity to improve workplace well-being for Canadian workers.

For the latest progress on data collection, please visit www.workinghealth.ca.

Interviews and Articles:
Thoms, Randy. (2023, September 18). Mental health study seeks participants. CFOB 93.1 The Border. https://www.931theborder.ca/2023/09/18/47703/

Mercer, Shane. (2023, September 7). Ambitious long-term study into worker health and well-being gets underway. Canadian Occupational Safety. https://www.thesafetymag.com/ca/topics/safety-and-ppe/ambitious-long-term-study-into-worker-health-and-well-being-gets-underway/458833

Nicholls, Katie. (2023, September 5). Lakehead University researchers launch mental health workplace study. Northern Ontario Business. https://www.northernontariobusiness.com/industry-news/training-education/lakehead-university-researchers-launch-mental-health-workplace-study-7494218

Nicholls, Katie. (2023, September 2). LU research institute set to launch mental health workplace study. TBNewswatch. https://www.tbnewswatch.com/local-news/lu-research-institute-set-to-launch-mental-health-workplace-study-7476622.

Lakehead University. (2023, August 30). EPID at Work launches groundbreaking new study on workplace mental health. Education News Canada. https://educationnewscanada.com/article/education/level/university/1/1037275/epid-at-work-launches-groundbreaking-new-study-on-workplace-mental-health.html

Lakehead University. (2023, August 29). EPID at Work launches groundbreaking new study on workplace mental health [Press release]. https://www.lakeheadu.ca/about/news-and-events/news/archive/2023/node/107260

Presentations:
Kristman V. The Northwestern Ontario Workplace and Worker Health Study. 2024 Showcase of Health Research, Italian Cultural Centre, Thunder Bay, Ontario, February 9, 2024. (Podium presentation)

Kristman VL. The Northwestern Ontario Workplace & Worker Health Study. Institute for Work & Health Speaker's Series. Toronto, March 5, 2024.

Kristman VL. EPID@Work and the Northwestern Ontario Workplace & Worker Health Study. University of Toronto Occupational Medicine Rounds. Virtual, hosted in Toronto, Ontario. November 22, 2023.

Kristman VL. The Northwestern Ontario Workplace & Worker Health Study. Forum North, Thunder Bay, Ontario. November 7, 2023.

Kristman VL. Northwestern Ontario Workplace & Worker Health Study. Sapawe "A Positive Rippling Effect" Conference. Toronto, Ontario. March 21-23, 2023.

Kristman VL. (2023, November 21) Northwestern Ontario Workplace & Worker Health Study. Kinross Industry Researcher Presentation Day. Lakehead University, Thunder Bay, Ontario.

Kristman VL. (2023, October 27) Northwestern Ontario Workplace & Worker Health Study. Presentation to St. Joseph's Care Group. Virtual, Thunder Bay, Ontario.

Kristman VL. (2023, October 26) Northwestern Ontario Workplace & Worker Health Study. Presentation to Synergy North. Synergy North, Thunder Bay, Ontario.

Kristman VL. (October 17, 2023) The Northwestern Ontario Workplace & Worker Health Study: A Community Research Tool. EPID@Work Research Institute. Research Into Action Conference 2023. Italian Cultural Centre, Thunder Bay, Ontario. October 17, 2023.

#2002: Technology-based Behavioural Health Supports: What Are Employers Offering and How Are They Affecting Wellness and Work?

Reasons for the project:

In the wake of the COVID-19 pandemic and increased public discourse about the dearth of public behavioural health (i.e., mental health and addiction) services, employers are likely recognizing the need to provide behavioural health supports to their employees. Concurrently, employers, who likely shifted aspects of their work on-line during the pandemic, may also be recognizing the benefits of technology-based behavioural health employee supports which can be provided flexibly, at a distance, and at a reduced cost compared to traditional behavioural health supports. To date, however, very little research has described the characteristics (e.g., platforms, such as apps, format, such as self-serve vs. life meetings or chats, duration, theoretical framework, evidence-base, etc.), employee uptake, and impact of technology-based, employer-provided behavioural health supports on Canadian outcomes including employee wellness and work. Even less is known about the impact of employer-provided, technology-based behavioural health supports in northern, rural, and remote settings where access to other services is extremely limited and the potential impact for such interventions is high. **The overall purpose of this project is to create information that employers, policymakers, and worker advocates can use to identify and implement the best quality, highest-value, best fit technology-based behavioural health supports in Northern Ontario workplaces and beyond.**

Objectives of the project:

- **Characterize** the range of existing and emerging employer-provided, technology-based behavioural health supports described in academic and grey literatures, including the evidence-base (e.g., wellness, work outcomes, cost-effectiveness) for popular and emerging products.
- **Describe** the frequency and breadth of technology-based, employer-provided behavioural health supports offered by employers in Northern Ontario and compare and contrast current practices with emerging best practices identified through this work.
- **Examine** innovations in employer-provided, technology-based behavioural health supports through a series of short case studies including information about the behavioural health support delivery platform, employer selection of the support (or support package), implementation strategy, information about employee uptake and feedback on the support, and any evaluation/quality improvement data available to accompany employer and employee experiences with the support.
- **Evaluate** a small set of the most innovative practices in technology-based employer-provided behavioural health supports, including implementation, uptake, and impact on wellness and work, and value.
- **Create** a series of knowledge translation products that can help guide employers, employees and policymakers to high quality, high value technology-based behavioural health supports that fit well with their needs.

Methods:

- **Scoping review** of academic and grey literatures describing current and emerging technology-based workplace behavioural health supports, including (but not limited to) apps, wearables, online chat and talk therapies, using COVIDENCE software (provided through EPID@Work). If there is sufficient evidence, we will use a systematic review approach instead. – COMPLETE
- **Environmental scan** of products already in use among range of employers of various sizes, across industries, in Northern Ontario, including employers in rural and remote locations, leveraging EPID@Work connections to employer organizations, as required. ONGOING

- **Case studies** of Northern Ontario workplaces implementing emerging and/or innovative technology-based behavioural supports. Data for case studies will come from document review, interviews with employer (e.g., product champion, HR) and employee representatives (e.g., union representative) familiar with the support. Potential cases will be identified through academic and grey literatures, searches of abstracts from relevant conferences, product websites or other promotional materials, solicitations from worker groups (e.g., large unions), and suggestions from experts in the field. "Innovative" use cases will be determined by the project team within the context of the results of the scoping review and environmental scan and in consultation with EPID@Work and Ministry project stakeholders. ONGOING
- **Program evaluations** of three of the most promising or innovative approaches to employer-provided, technology-based workplace behavioral health support. We will prioritize cases that represent a range of technologies, supports, and workplace environments, and accessibility to data for outcome and cost-related assessments. (**Spring 2024**)

Status: Ongoing
End Date: 2024

Research Team and roles:
Deborah Scharf, PhD CPsych (Principal Investigator)
Joanne Kao, MA (Graduate Student Researcher)
Chelsea Noël, MA (Graduate Student Researcher)
Jillian Zitars, MA (Graduate Student Researcher)
Chris Armiento, BSc (Research Assistant)
Shayla Stanovik (Research Assistant)
Lynn Martin, PhD (Co-Investigator) (evaluation and KTM project lead)

Collaborators and Partners:
Lakehead University Department of Psychology

Knowledge Transfer Strategies:
- **Academic channels:** At least two abstracts at professional conferences such as Canadian Psychological Association (CPA) and International Conference on Workplace Health and Safety, and two academic papers for submission to peer-reviewed journals.
- **Research brief and infographics:** Lay summary of research findings (3-4 pages), including bottom-line, up-front points of interest to employers considering investing in new or expanded employee behavioural health supports, plus visual depiction of key findings for employers.
- **Media release:** One paragraph summary of findings for distribution to commercial/business-oriented media outlets and worker advocacy groups
- **And more!** In partnership w/ EPID@Work KMI team

Target Audience:
- Employers can benefit from learning about the breadth of options available to promote workplace mental health, that may be a particular fit with their workplace culture and setting
- Employers can benefit from identifying evidence-based tools that have potential to maximize returns on investments through choosing high-uptake, high-impact supports
- Employees can benefit from expanded access to evidence-based behavioural health support

- Community behavioural health programs may benefit from reduced demand for services where workplace services are helping to address high rates of need.
- Ministry of Labour can create policies that facilitate/promote improvement of behavioural health supports for workers
- Researchers can develop work/evaluation in this area, including grant applications to TriCouncil or other funders that builds upon this work
- There was a lot of interest from community employers and organizations including unions in this project at the EPID@Work first annual conference in October, 2023. We are in ongoing conversations with employers and representatives from this meeting for data collection and dissemination opportunities. This meeting also helped us identify potential case studies for part III of the project

Linkage to MLITSD's *Prevention Works* Strategy:
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
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☐ Objective 4: Make OHS easier for small businesses

Project findings available in Open Access journals, platforms, or repositories:
Article being drafted; to be submitted to Canadian Psychologist.

Related Research Summaries:
We have completed two major parts of the project: (1) We completed a literature review examining the evidence of technology-based behavioural health support used in workplaces. The results were presented at the 2024 Lakehead University Research and Innovation Week as a poster, which won first place in the CIHR category. (2) We completed an environmental scan looking into employee benefits packages provided by employers in Northwestern Ontario. We examined benefit coverage for behavioural health in workers' group health benefits. We also examined types of technology-based behavioural health support currently provided to workers through their group health benefits and employee and family assistance programs (EFAP). The results were presented at the 2024 Northern Health Research Conference. We are currently working on a journal manual script, which will be submitted in the summer of 2024.

Interviews and Articles:
Kao CJ, Zitars J, Armiento C, Stankovic S, & Scharf D. In preparation: Technology-Based Behavioural Health Supports: What are Employers Offering and How are they Affecting Wellness at Work. To be submitted to: Canadian Psychologist. 2024

Presentations:
Kao CJ. Technology-based Behavioural Health Supports for Employees in Northwestern Ontario. EPID@Work Research Into Action Conference 2023, Thunder Bay, Canada, October 17, 2023. (Oral presentation)

Kao CJ, Zitars J, & Scharf D. Using the VOSviewer to Facilitate Literature Review: An Example Looking at Technology-Based Behavioural Health Support Used in Workplaces. 2024 Lakehead University Research and Innovation Week, Thunder Bay, Canada, February 27, 2024. (Poster presentation)

Kao CJ, Zitars J, Armiento C, Stankovic S, & Scharf D. Technology-Based Behavioural Health Supports for Employees in Northwestern Ontario: An Environmental Scan of Employer-Provided Benefit Packages. 2024 Northern Health Research Conference, Sudbury, Canada, June 10-11, 2024. (Oral presentation)

#2015: Association between Job Satisfaction and Mental Health in Canadian Working Population

Reasons for the project:

Mental health conditions are becoming a worldwide concern. Among the working Canadian population, one in every twelve persons experiences a mental health problem. Literature suggests that job insecurity, characterized by high unemployment rates and temporary and contract work, can impact the mental health of individuals. Workplace conditions, including the fairness of employment, working environment, stressful work, and injustice at the workplace, have been implicated as risk factors for developing mental health conditions. Among the other factors, gender, education, and immigration status are related to coping strategies at workplaces and may influence the impact of job-related factors on the mental health of individuals. In this context, the proposed study aims to explore the impact of employment conditions on the mental health of the Canadian adult population, considering the role of gender and immigration.

Objectives of the project:
- To identify the incidence of mental disorders among the adult population in Canada
- To describe the association between job satisfaction and mental health of adult Canadian working population
- To examine whether gender and immigration status has an impact on the relationship between job satisfaction and mental health

Methods:

We conducted a prospective population-based cohort study using the Longitudinal and International Survey of Adults (LISA) data. We used wave three (2016) and four (2018) data to assess the longitudinal association between job satisfaction and the onset of mental health problems. The primary independent variable in the study, i.e., job satisfaction and other covariates, were measured at the baseline. All the data were weighted to ensure that the sample was representative of the population. A multivariate regression model was fitted to assess the prospective association between job satisfaction (wave 3) and the incidence of self-reported mental health problems over a two-year follow-up period (wave 4), controlling for baseline characteristics. We constructed an interaction model with gender and immigrant status and performed stratified analyses.

Status: Completed
Start Date: March 2023
End Date: August 2023

Research Team and roles:
Umme Saika Kabir (Ph.D. student)
Dr. Basak Yanar (Field Supervisor)

Collaborators and Partners:
Internship project at Institute for Work and Health (IWH)

Knowledge Transfer Strategies:
Dissemination via EPID@Work Research Institute's Quarterly "EPID Talks", journal publication, report was submitted to the Department of Health Science.

Target Audience:
Employers, HR professionals, employees particularly immigrant workers, and policymakers.

Linkage to MLITSD's *Prevention Works* Strategy**:**
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☒ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Funders: PhD Internship project, unfunded.

Project findings available in Open Access journals, platforms, or repositories:
Manuscript preparation ongoing

Related Research Summaries:
Background: Mental health conditions are becoming an increasing concern among the working population. Job dissatisfaction is a well-recognized workplace stressor that significantly impacts employee well-being. In this study, we examined the impact of a global measure of job satisfaction on the self-reported mental health of the Canadian working population, considering the differential role of gender and immigration.

Methods: We conducted a prospective population-based cohort study using the Longitudinal and International Survey of Adults (LISA) data. LISA is a longitudinal survey with multi-stage multiphase sampling conducted bi-yearly from 2012 to 2018. We used wave three (2016) and four (2018) data to assess the longitudinal association between job satisfaction and the onset of mental health problems. The participants without mental health problems at wave three were included in the study and followed till wave four. The primary independent variable in the study, i.e., job satisfaction and other covariates, were measured at the baseline. Job satisfaction was measured on a 10-point Likert scale. All the data were weighted to ensure that the sample was representative of the population. A multivariate regression model was fitted to assess the prospective association between job satisfaction (wave 3) and the incidence of self-reported mental health problems over a two-year follow-up period (wave 4), controlling for baseline characteristics. We constructed an interaction model with gender and immigrant status and performed stratified analyses.

Result: The weighted total sample size was 10,888,815. The mean job satisfaction of the entire sample at wave three was 7.59. The mean job satisfaction at wave three was 7.31 and 7.86 among the people with or without mental health problems, respectively (p<0.0001). The crude incidence of new mental health problems at wave four was 8.21%. Higher job satisfaction was significantly associated with a lower risk of the development of mental health problems both in the crude (OR 0.86, 95% CI 0.81-0.91) and adjusted model (OR 0.88, 95% CI 0.82-0.94). The relation between job satisfaction and mental health problems did not differ by gender, but there was variability but immigration status. Both immigrants and non-immigrants with higher job satisfaction had a lower risk of developing mental health problems. Still, the association was stronger among the immigrants (OR 0.79, 95% CI 0.69-0.90) than non-immigrants (OR 0.92, 95% CI 0.85-0.98).

Implications: The findings from the study provide evidence for addressing job satisfaction influencing the working population mental health over time. The immigrants' mental health is more likely to be impacted by job satisfaction than the Canadian-born workers. However, the mental health of both men

and women is equally related to job satisfaction. Appropriate measures will focus on improving the employees; mental health outcomes by promoting greater job satisfaction and enhancing their performance for the benefit of employers.

Interviews and Articles:
Kabir US, Yanar B. In preparation: Association between job satisfaction and mental health in the Canadian working population: Do gender and immigration matter?

Presentations:
Kabir US, Shahidi FV, & Yanar B. (2023). (rep.). Association between Job Satisfaction and Mental Health in Canadian Working Population: Do Gender and Immigration Matter? Presented at the Department of Health Science PhD Seminar.

#2016: Training Brazilian Nurses to Promote Mental Health at Work

Reasons for the project:

Psychosocial risks are a well-known problem in the healthcare environment that has been aggravated due to the Covid-19 pandemic. Occupational stress and precarity of work conditions can lead to a collective emotional collapse if there is no organizational support. Developing nurses to promote mental health at work can be a powerful strategy for psychosocial health and safety in the workplace. Online training is a cheap and accessible intervention that could help nurses address the nursing team's mental health needs.

Objectives of the project:

- Main goal: To pilot a model to evaluate the effectiveness of a training intervention aimed at hospital nurse leaders to promote mental health at work.
- To develop the online training program addressing mental health in the workplace.
- To select primary outcomes and measurement instruments for evaluating the training program.
- To validate the evaluation instruments with experts using the Delphi Technique.
- To implement the online training and measurement instruments in a pilot group of nurse-leaders.

Methods:

A quasi-experimental pilot study with pre- and post-test measures in a single group and a follow-up of two and four months after an online training, called the Lidera-SMT Program. The choice for an internet-based intervention was justified as an effort to extend the range of content to a wider audience, as well as to build a feasible and safe proposal in the context of the Covid-19 pandemic.

All nurses who work in a hospital environment were eligible to participate in the intervention, whether they have or not a formal leadership position in the organizational structure. This research was developed at the Federal University of São Carlos (UFSCar), the main institution, and recruited nurse-leaders who worked in a hospital, regardless of location. The recruitment was done through the dissemination of the Lidera-SMT Program on social media (e.g., Instagram and Facebook) and in press vehicles (e.g., radio and journalistic websites; Nursing Council websites). The sample was non-probabilistic for convenience based on the voluntary response of the participants, including subjects who were present in at least 75% of the Program's activities.

The intervention was based on the Canadian National Standard for "Psychological Health and Safety at Work". It consisted of 10-hour training for nurses, with four modules of two hours per week for general nurses and an extra 2-hour optional module. The five modules encompassed: (1) Learning from Canadian experience: to present the program introducing mental health promotion at work and presenting an overview of the Canadian standard; (2) Prevention: to understand work as a determinant of the health-disease process, identifying psychosocial risks and their repercussions in the hospital context; (3) Promotion: to outline actions and psychologically healthy and safety's strategies to be developed or improved in the hospital; (4) Resolution: to present health surveillance to monitor events; (5) Supervision: to reflect about the role of leadership engagement for promoting mental health at work. All non-validated instruments were validated with a Delphi Panel.

Data were collected at 4-data points (pre-, post-, two-months and four-months follows-up) through a sociodemographic questionnaire and pilot testing the intervention was based on Donald Kirkpatrick's first three levels of evaluation, using as measures: level I – interest, confidence, attention, expectation; level II – learning; and level III – attitudes and perceived structural empowerment. Analysis used JAMOVI software and included descriptive statistics for participant characteristics; Non-parametric ANOVA, linear mixed model to assess learning retention; Cronbach's alpha to measure the internal consistency of the questionnaires; Spearman correlation test to identify correlation between attitudes and structural

empowerment; and Mann-Whitney test to compare groups by training hours. The significance adopted was 5%. Ethical aspects were respected, and the project was approved by both Ethics Offices

Status: Completed
Start Date: March 2020
End Date: March 2024

Research Team and roles:
MSc. Fernanda Maria de Miranda (Principal Investigator, PhD student)
Dr. Vicki Kristman (Co-investigator, co-supervisor)
Dr. Vivian Aline Mininel (Co-investigator, supervisor)

Collaborators and Partners:
Federal University of São Carlos, São Carlos, Brazil.

Knowledge Transfer Strategies:
* For recruiting the GFST Instagram page was used (approved by both the UFSCar Ethics Office and the Lakehead Ethics Office), this page is being used to engage knowledge translation and dissemination of the Project scientific production.
* For the academic community, at least five journal papers are in progress and two conference presentations.
* The content of the Lidera-SMT program will be fully published in the thesis.
* We are analyzing the possibilities with the Federal University of São Carlos to put the Program as a self-directed open course on the PoCA platform or to reoffer the Program in 2024/2025.

Target Audience:
The audience was Brazilian hospital nurses. We believed that a training program based on the principles and concepts of the CSA standard for "Psychological Health and Safety at Work" could be positive to train Brazilian nurses in how to promote mental health at work.

Linkage to MLITSD's Prevention Works Strategy:
☐ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Funders: Coordination for the Improvement of Higher Education Personnel (Brazil) by Sandwich Doctorate Program/PDSE program
Amount: $22,409.00
Dates: September 2022 – June 2023

Funders: Coordination for the Improvement of Higher Education Personnel (Brazil) by Sandwich Doctorate Program/DS program
Amount: R$24.800,00
Dates: July 2023 – February 2024

Project findings available in Open Access journals, platforms, or repositories:
https://repositorio.ufscar.br/handle/ufscar/19675

Related Research Summaries:
Introduction: psychosocial risks are known problems in the context of hospital nursing work. Training leaders to promote mental health at work emerges as a powerful strategy, although still limited in the Brazilian context. Nurses' awareness of psychosocial risks and the workplace factors that affect them, as well as their position in the organization as nurse leaders, can strengthen the collective fight for healthy environments. **Objective:** to pilot a model to evaluate the effectiveness of a training intervention aimed at hospital nurse leaders to promote mental health at work. **Method:** pilot study with pre- and post-test in a single group with follow-up of two and four months after an online training called the Lidera-SMT Program, designed based on the Canadian National Standard of Psychological Workplace Health and Safety. The research was carried out in three stages: Development of the intervention and instruments; Validation of instrument content; Implementation and pilot and evaluation of Lidera-SMT. All nurses working in hospitals were eligible to participate in the intervention. The sample was non-probabilistic for convenience and those who did not complete the Program were excluded. Data were collected through a sociodemographic questionnaire and pilot testing the intervention was based on Donald Kirkpatrick's first three levels of evaluation, using as measures: level I – interest, confidence, attention, expectation; level II – learning; and level III – attitudes and perceived structural empowerment. Analysis used JAMOVI software and included descriptive statistics for participant characteristics; Non-parametric ANOVA, linear mixed model to assess learning retention; Cronbach's alpha to measure the internal consistency of the questionnaires; Spearman correlation test to identify correlation between attitudes and structural empowerment; and Mann-Whitney test to compare groups by training hours. The significance adopted was 5%. Ethical aspects were respected and the project was approved (Brazil: approval n. 5.627.685; CAAE 57917922.9.0000.5504; Canada: n. 1469900). **Results:** Lidera-SMT was based on the flipped classroom and was composed of four mandatory modules and one optional, totaling 8 or 10 hours. The sociodemographic questionnaire, the learning test and the perceived attitudes instrument, which were not validated, underwent validation using the Delphi Technique. Twelve Brazilian experts participated (eight academics and four nursing specialists). Lidera-SMT was implemented between July and August 2023. Sixty-seven nurses started the Program and 54 completed it, demonstrating 81% adherence. Both partial (n=50) and complete data (n=29) were considered to evaluate learning and behavior levels. Level I: satisfaction means above 4.46 (SD=0.872), with 94% of participants (n=50) over the cutoff point. Level II: mean score increased from 3.9 (pre) to 4.41 (2nd follow-up), with significant differences pre and post (p=0.04) and pre and 2nd follow-up (p<0.01). Level III: perceived attitudes achieved high scores, although no significant differences were observed between the assessment moments. The perception of structural empowerment has increased significantly. There are correlations between attitudes and structural empowerment. **Conclusions:** in pilot work, Lidera-SMT demonstrated to be an effective intervention for promoting mental health at work.

Published papers:
Santos, B. V. dos, Miranda, F. M. de, Silva, J. A. M. da, Sato, T. de O., & Mininel, V. A. (2023). Estratégias de promoção à saúde mental no trabalho de enfermagem hospitalar: revisão integrativa. REUFSM, 13, e36. https://doi.org/10.5902/2179769274722

Submitted papers:
Miranda, F. M., Borges, L. V., & Mininel, V. A. Under review at Revista Brasileira de Pós-graduação.

Miranda, F. M., Kristman, V. L., & Mininel, V. A. Under review at Revista Latino-Americana de Enfermagem.

In progress papers:
Miranda FM, Santos BV dos, Kristman VL, & Mininel VA. Developing training, and its evaluation set, on promoting mental health at work. It will be submitted for the Canadian Journal of Community Mental Health.

Miranda F M, Sato TO, Kristman VL, Bahrami F, & Mininel VA. Effectiveness of training in Workplace Mental Health among nurses. It will be submitted for Occupational Medicine (Oxford).

Abstracts and papers in Refereed Conference Proceedings:
Miranda FM, Kristman VL, & Mininel VA. Developing a training for promoting mental health at work among Brazilian nurses. In: 11th PREMUS, 6th WDPI, and 11th MYOPAIN Proceedings, IJOEM (in press). 2024

Santos BV, Miranda FM, Kristman VL, Mininel VA. Mental health promotion strategies at work in hospital nursing: an integrative literature review. In: 11th PREMUS, 6th WDPI, and 11th MYOPAIN Proceedings, IJOEM (in press). 2024.

Interviews and Articles:
Lidera-SMT recognition on Brazilian radio
Interview about the PREMUS/WDPI award
Interview about the PREMUS/WDPI award

Presentations:
Miranda FM, Kristman VL, & Mininel VA. Developing a training for promoting mental health at work among Brazilian nurses. In: 11th PREMUS, 6th WDPI, and 11th MYOPAIN. Bangalore, India, 2024.

Santos BV, Miranda FM, Kristman VL, Mininel VA. Mental health promotion strategies at work in hospital nursing: an integrative literature review. In: 11th PREMUS, 6th WDPI, and 11th MYOPAIN. Bangalore, India, 2024.

Recognition/Awards:
Miranda FM. Young Researcher Award WDPI 2023. In: 11th PREMUS, 6th WDPI, and 11th MYOPAIN. Bangalore, India.

Miranda FM. (2023) Motion of Praise and Recognition. Matão City Council, SP, Brazil.

Equity, Diversity, and Inclusion

Equity, Diversity, and Inclusion continues to be an area of research focus at the EPID@Work Research Institute. Northwestern Ontario (NWO) contains about 66 Indigenous communities; over 61,000 people identify as Indigenous in NWO. Over 14,500 people identify as immigrants in NWO. These two populations, along with those working in precarious positions, older workers, and injured workers, are populations of focus for the Institute.

#1013: Understanding Labour Force Participation, Work Productivity and Disability from the Indigenous Perspective: A Partnership with the Nokiiwin Tribal Council

URL:
Facebook: https://www.facebook.com/Epidatwork/videos/352110290648726
Instagram: https://www.instagram.com/p/CzKAi3zv9X-/
LinkedIn: https://www.linkedin.com/feed/update/urn:li:activity:7125936044696326144

Reasons for the project:
What is known from the existing literature to improve labour force participation, work engagement, work productivity, and absenteeism through interventions (broadly speaking, workplace or policy change, etc.) addressing the following factors:
ii) Safety climate and culture
iii) Interpersonal conflict at work
iv) Family-work conflict (including bereavement)
v) Job stress (workload, multiple roles)
vi) Supervisor and co-worker support

Objectives of the project:
The overall goal of this project is to identify opportunities to increase the labour force participation, productivity, and disability prevention of the Indigenous population in Canada by developing culturally sensitive policies and interventions. Specific objectives of this project include: determining the labour market participation of individuals; assessing the productivity levels of working individuals through measures of work engagement and presenteeism; ascertaining the levels of work disability within working individuals through measures of absenteeism; determining the association between workplace factors and labour market participation, productivity, and disability; and preliminarily identifying and developing interventions that will have the greatest impact in improving the labour market participation, productivity, and disability prevention; all within the communities of the Nokiiwin Tribal Council.

Methods:
Cross-sectional survey, Focus groups, scoping review

Status: Ongoing – In manuscript stage
Start Date: September 2017
End Date: Mid 2024

Research Team and roles:
Dr. Vicki Kristman (Principal Investigator)
Audrey Gilbeau, Executive Director, Nokiiwin Tribal Council (Co-Investigator)
Dr. Helle Moeller (Co-investigator)

Dr. Chris Mushquash (Co-investigator)
Dr. Lori Chambers (Co-investigator)
Dr. Rebecca Schiff (Co-investigator)
Dr. Mirella Stroink (Co-investigator)
Dr. William Shaw, University of Connecticut (Co-investigator)
Dr. Monique Gignac, IWH (Co-investigator)
Kara Polson (Research Assistant)
Maryam Einshouka (Research Assistant)
Mannila Sandhu (Research Assistant)
Claudia J. Czechowski (Research Assistant)
Aynsley Klassen (Research Assistant)
Thanusan Sooriyakumar (Research Assistant)
Kayla Kubinec (Research Assistant)
Chantee Steinberg (Research Assistant)
Logan Marks (Research Assistant)
Tahsin Anika (Research Assistant)
Umme Saika Kabir (Research Assistant)
Aseel Hashim (Research Assistant)
Aaila Wadhwa (Research Assistant)
Brianna Belanger (Research Assistant)

Collaborators and Partners:
Nokiiwin Tribal Council

Knowledge Transfer Strategies:
Dissemination through EPID Talks, publications, lay persons reports; further strategies to be developed by the EPID KMI group

Target Audience:
Employers; Nokiiwin Tribal Council communities (and broader Indigenous populations)

Linkage to MLITSD's Prevention Works Strategy:
☐ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Project findings available in Open Access journals, platforms, or repositories:
In preparation stage, to be submitted to Oxford University Press (OUP) Academic Articles Supplement, Journal of Occupational Health.

Related Research Summaries:
This project included three components: a community survey, focus groups, and a scoping review for interventions addressing the factors identified in the first two components. The summaries are below:

Nokiiwin Tribal Council Community Survey - Understanding Healthy Workplace Factors in the Indigenous Context
Objectives: This study was conducted to help us understand the important factors for a healthy workplace in the context of the Indigenous population. We aim at determining the most important workplace factors to help us later conduct a scoping review to identify interventions to improve these important factors by looking at both indigenous and non-indigenous populations.
Methods: In partnership with the Nokiiwin Tribal Council (NTC), we surveyed community members aged 15 years older at various 2017-2018 events using electronic and paper-based surveys. Of those who were working, we examined the following workplace factors: global safety at work, workplace social capital, discrimination, interpersonal conflict at work, family work conflict, supervisor & coworker support, and job stress for their association with the following outcomes: engagement, presenteeism, absenteeism and job satisfaction.
Results: Out of the 171 participants, 149 (87.1%) completed the survey. Using bivariable regression, we found that interpersonal conflict at work was associated with social engagement (β = -0.15; 95% CI -0.26, -0.05) and presenteeism (β = -0.80; 95% CI -1.39, -0.22). The family work conflict was associated with overall engagement (β = -0.15; 95% CI -0.27, -0.03) and absenteeism (β = 1.63; 95% CI 1.09, 2.43). Job stress was associated with overall engagement and job satisfaction. Different levels of supervisor and coworker support were also associated with engagement and absenteeism.
Conclusion: We learned that lower interpersonal conflict at work and family work conflict, followed by higher supervisor & co-worker support and job control were the most important healthy workplace factors in the Indigenous population.

Work-related factors affecting the wellbeing of workers from Nokiiwin Tribal Council Communities
Objectives: This study was conducted to help us understand the important factors for a healthy workplace in the context of the Indigenous population. We aim at determining the most important workplace factors to help us later conduct a scoping review to identify interventions to improve these important factors by looking at both indigenous and non-indigenous populations.
Methods: In partnership with the Nokiiwin Tribal Council (NTC), we surveyed community members aged 15 years older at various 2017-2018 events using electronic and paper-based surveys. Of those who were working, we examined the following workplace factors: global safety at work, workplace social capital, discrimination, interpersonal conflict at work, family work conflict, supervisor & coworker support, and job stress for their association with the following outcomes: engagement, presenteeism, absenteeism and job satisfaction.
Results: Out of the 171 participants, 149 (87.1%) completed the survey. Using bivariable regression, we found that interpersonal conflict at work was associated with social engagement (β = -0.15; 95% CI -0.26, -0.05) and presenteeism (β = -0.80; 95% CI -1.39, -0.22). The family work conflict was associated with overall engagement (β = -0.15; 95% CI -0.27, -0.03) and absenteeism (β = 1.63; 95% CI 1.09, 2.43). Job stress was associated with overall engagement and job satisfaction. Different levels of supervisor and coworker support were also associated with engagement and absenteeism.
Conclusion: We learned that lower interpersonal conflict at work and family work conflict, followed by higher supervisor & co-worker support and job control were the most important healthy workplace factors in the Indigenous population.

Workplace interventions for workplace factors affecting worker health: systematic search and scoping review procedures

Objectives: To identify workplace interventions for the following workplace factors: work-family conflict, co-worker conflict at work, job stress, safety climate and culture, supervisor and co-worker support; and to highlight gaps in the literature and make recommendations for future research.

Methods: MEDLINE, Embase, PsycINFO, Sociological Abstracts, and Business Source Premier were searched between Jan 1, 1990 and Dec 31, 2022. Inclusion criteria included published peer-reviewed articles in English containing an intervention addressing at least one of the five workplace factors of interest. We used a broad definition of intervention to include any workplace change, program or policy implementation. References were also identified from relevant reviews and bibliographies of eligible articles. Eligible articles were identified through two stages. In the first stage, a title and abstract review determined if the article contained a relevant intervention. Two reviewers independently reviewed the titles and abstracts. In the second stage, two reviewers reviewed the full paper and one abstracted relevant information into evidence tables. The evidence was organized into separate articles according to the workplace factor addressed.

Results: After 7,569 titles and abstracts were screened, 1,764 articles were examined for eligibility. Of these, 327 (19%) were accepted as containing a relevant intervention and formed the basis of our findings, which are organized into five articles in this supplement.

Conclusions: The scoping reviews contained in this supplement identify the interventions used to address the workplace factors of interest over the past 32 years. Further research is needed to evaluate the effectiveness of the identified interventions.

Infographic: Holistic approach to Indigenous Inclusion

Poster: Kristman VL, Gilbeau A, Herring MG. Understanding labour force participation, work productivity and disability in the Indigenous context. 2020 Showcase of Health Research, St. Joseph's Care Group, Thunder Bay, Ontario, February 7, 2020. (Poster presentation). Online: Link to the study poster on Lakehead website

Interviews and Articles:
O'Loughlin RA, Kristman VL, Gilbeau A. Inclusion of Indigenous workers in workplace mental health. Equality, Diversity and Inclusion: An International Journal. 20 Apr, 2022; 41(3):340-51. Online: https://doi.org/10.1108/EDI-07-2020-0176

Workplace Safety & Prevention Services. Understanding labour force participation, work productivity and disability in the Indigenous context: a partnership with the Nokiiwin Tribal. 21 August, 2018. Online: https://www.wsps.ca/resource-hub/articles/understanding-labour-force-participation-in-the-indigenous-context

Drafted, in review stage, pending submissions:
Kristman VL, Polson K, Sandhu M, Einshouka M, Czechowski CJ. Workplace interventions for workplace factors affecting worker health: systematic search and scoping review procedures. Submitted to Oxford University Press (OUP) Academic Articles Supplement. Journal of Occupational Health. 2024.

Polson K, Sandhu M, Einshouka M, Czechowski CJ, Kristman VL. Workplace interventions addressing work-family conflict: a scoping review. Submitted to Oxford University Press (OUP) Academic Articles Supplement. Journal of Occupational Health. 2024.

Einshouka M, Polson K, Sandhu M, Czechowski CJ, Kristman VL. Workplace interventions addressing conflict at work: a scoping review. Submitted to Oxford University Press (OUP) Academic Articles Supplement. Journal of Occupational Health. 2024.

Einshouka M, Sandhu M, Czechowski CJ, Kristman VL. Workplace job stress interventions: a scoping review. Submitted to Oxford University Press (OUP) Academic Articles Supplement. Journal of Occupational Health. 2024.

Sandhu M, Einshouka M, Czechowski CJ, Kristman VL. Workplace interventions addressing safety climate and culture: a scoping review. Submitted to Oxford University Press (OUP) Academic Articles Supplement. Journal of Occupational Health. 2024.

Czechowski CJ, Sandhu M, Einshouka M, Polson K, Kristman VL. Workplace interventions addressing supervisor and co-worker support: a scoping review. Submitted to Oxford University Press (OUP) Academic Articles Supplement. Journal of Occupational Health. 2024.

Kristman VL, Sandhu M, Gilbeau A. Nokiiwin Tribal Council Community Survey – understanding health workplace factors in the Indigenous context. To be submitted to the International Journal for Equity in Health.

Kristman VL, Klassen A, Sandhu M, Gilbeau A. Work-related factors affecting the wellbeing of workers from the Nokiiwin Tribal Council Communities. To be submitted to the International Journal of Indigenous Health.

Presentations:
Kristman VL, Sandhu M, Gilbeau A. Nokiiwin Tribal Council Community Survey - Understanding healthy workplace factors in the Indigenous context. 34th International Congress on Occupational Health, ICOH, Marrakesh, Morocco. Forthcoming 28 April – 3 May 2024. (Podium presentation)

Kristman VL, Sandhu M, Gilbeau A. Nokiiwin Tribal Council Community Survey - Understanding healthy workplace factors in the Indigenous context. Biennial Canadian Society for Epidemiology and Biostatistics (CSEB) conference, Halifax, Nova Scotia, June 28, 2023 (Podium presentation)

Kristman VL. Understanding labour force participation, work productivity and disability in the Indigenous context -> Research project objectives and methods refresher. Nokiiwin Tribal Council and Lakehead University partnership meeting. June 5, 2023 (Podium presentation)

Sandhu M. Understanding labour force participation, work productivity and disability in the Indigenous context -> Nokiiwin Tribal Council Community: Survey Findings. Nokiiwin Tribal Council and Lakehead University partnership meeting. June 5, 2023 (Podium presentation)

Klassen A. Understanding labour force participation, work productivity and disability in the Indigenous context -> Work-Related Factors Affecting the Wellbeing of Workers from Nokiiwin Communities. Nokiiwin Tribal Council and Lakehead University partnership meeting. June 5, 2023 (Podium presentation)

Kristman VL. Understanding labour force participation, work productivity and disability in the Indigenous context -> Scoping Review Methodology. Nokiiwin Tribal Council and Lakehead University partnership meeting. June 5, 2023 (Podium presentation)

Kristman VL. Understanding labour force participation, work productivity and disability in the Indigenous context -> Factor 1 Interventions: Supervisor & Coworker Support. Nokiiwin Tribal Council and Lakehead University partnership meeting. June 5, 2023 (Podium presentation)

Polson K. Understanding labour force participation, work productivity and disability in the Indigenous context -> Factor 2 Interventions: Conflict at Work. Nokiiwin Tribal Council and Lakehead University partnership meeting. June 5, 2023 (Podium presentation)

Polson K. Understanding labour force participation, work productivity and disability in the Indigenous context -> Factor 3 Interventions: Work-Family Conflict. Nokiiwin Tribal Council and Lakehead University partnership meeting. June 5, 2023 (Podium presentation)

Sandhu M. Understanding labour force participation, work productivity and disability in the Indigenous context -> Factor 4 Interventions: Safety Climate and Safety Culture. Nokiiwin Tribal Council and Lakehead University partnership meeting. June 5, 2023 (Podium presentation)

Einshouka M. Understanding labour force participation, work productivity and disability in the Indigenous context -> Factor 5 Interventions: Job Stress. Nokiiwin Tribal Council and Lakehead University partnership meeting. June 5, 2023 (Podium presentation)

#1016: COVID-19 and Policing in Ontario: Preparing for Future Pandemics

Reasons for the project:
The COVID-19 pandemic underscored that many nations were ill-prepared to respond to a contagious, life-threatening virus. However, this event has given cause and opportunity to conduct the research necessary to assist community partners now and future generations in their preparedness for pandemics.

Objectives of the project:
Study 1: Calls for Service and Officer Workload
-    How did distributions of police calls for service and police work change during the pandemic?
Study 2: Pandemic Policies
-    How was officer wellness (e.g., sick days, leave) affected by the pandemic?
-    What policies did police services adopt in response to the pandemic?
-    Understand police officer's attitudes and health amidst the Covid-19 pandemic.

Methods:
Mixed methods

Status – Study 2: Completed
Status – Study 1: Ongoing
•   The PI was on a compassionate leave due to the death of an immediate family member that extended the end date of the project.
End Date: September 2024

Research Team and roles:
Dr. Alana Saulnier (Principal Investigator)
Dr. Vicki Kristman (Co-investigator)
Dr. Daniel Krupp (Co-investigator)
Dr. Victoria Sytsma (Collaborator)
Ms. Mannila Sandhu (Research Staff)
Ms. Emily Boyko (Research Staff)

Collaborators and Partners:

Durham Regional Police Service	Barrie Police Service
Belleville Police Service	Brockville Police Service
Chatham-Kent Police Service	City of Kawartha Lakes Police Service
Cobourg Police	Cornwall Police Service
Halton Regional Police Service	Niagara Regional Police Service
North Bay Police Service	Ottawa Police Service
Owen Sound Police Service	Peterborough Police Service
Port Hope Police Service	South Simcoe Police Service
Strathroy-Caradoc Police Service	Thunder Bay Police Service
West Grey Police Service	York Regional Police
Lakehead University	

Knowledge Transfer Strategies:
Dissemination through EPID Talks, publications, lay persons reports; further strategies to be developed by the EPID Knowledge Mobilization and Implementation group.

Target Audience:
Audience includes police organizations, community services, municipal government. Significance to understand the effects Covid-19 had on policing which may help us better prepare for future pandemics.

Linkage to MLITSD's *Prevention Works* Strategy**:**
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☒ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☒ Objective 4: Make OHS easier for small businesses

Funders: SSHRC
Amount: $132,190
Dates: 2021 - 2024

Project findings available in Open Access journals, platforms, or repositories:
Yes, this will be available in open access

Related Research Summaries:
The COVID-19 pandemic (hereafter, referred to as the pandemic) underscored that many nations were ill-prepared to respond to a contagious, life-threatening virus. 1 In Canada, police services are a critical aspect of the public safety infrastructure that endeavouring to provide nationally consistent service regarding the core functions of crime prevention, law enforcement, assistance to victims of crime, public order maintenance, and emergency response. Achieving these mandates as efficiently, effectively, and consistently as possible is supported through governance materials such as legislation and internal service procedures as well as guidance documents produced by allies of the public safety community. The pandemic was an example of a civil emergency during which the operation of police services was required to change to meet the demands of the situation. In the absence of existing governance materials, individual Canadian police services adjusted their operations to meet the demands of the pandemic in an ad hoc manner. These changes were documented through a variety of internal and external police communications, ranging from internal email communications to strategic plans. These outputs provide a record of the changes to service operations that occurred during the pandemic and are resources that can be used to inform the creation of a civil emergency guidance document that summarizes the range of changes to operations that services should be prepared for during civil emergencies, more generally.

Saulnier A, Zuzunaga Zegarra D, Sytsma V, Krupp D, & Kristman V. Civil emergence guidance: Changes to police service operations. A report prepared for the Ontario Association of Chiefs of Police. Ontario, Canada. 2023.

Interviews and Articles:
Sytsma V & Saulnier A. The impact of COVID-19 on police officer wellness. Policing & Society. 2024.

Presentations:

Saulnier A, Sandhu M, Krupp D & Kristman V. Effects of the COVID-19 pandemic on police calls for service. American Society of Criminology. Philadelphia, USA. (Nov, 2023)

Sytsma V & Saulnier A. The impact of COVID-19 on Police Officer Wellness. American Society of Criminology. Philadelphia, USA. (Nov, 2023)

#1017: Enroute to Recovery: Diversity and Vulnerability in Care Work During and After the COVID-19 Pandemic

Reasons for the project:
Our project will focus on employees performing vital COVID-19 related jobs: providing individual care to vulnerable clients in both organizational and home settings. We will examine how diverse people (in Finland, Canada, Scotland/UK and South Africa) who work/have worked in formal and informal care address challenges by collaboratively examining their ideas to ease risks and develop opportunities to deliver and receive care. Specifically, we will analyze how care workers in precarious positions (women, LGBTI2S people, and migrant status or minority ethnic people) are experiencing COVID-19 crises in their work, and how they see a post-pandemic future.

Objectives of the project:
We will apply innovative qualitative methods to investigate how care sector workers have experienced the pandemic and how they see their post-pandemic times at work

Methods:
Qualitative interviews, photovoice, sound sourcing and a systematic literature review

Status: Ongoing
Start Date: April 2022
End Date: September 2024

Research Team and roles:
Dr. Marjut Jyrkinen, University of Helsinki, (Principal Investigator)
Dr. Kathy Sanderson, Lakehead University (Co-Investigator, Canada)
Dr. Linda McKie, University of Edinburgh (Co-Investigator, UK)
Dr. Floretta Boonzaier, University of Cape Town (Co-Investigator, South Africa)
Multiple other researchers from each country

Collaborators and Partners:
Home Care, Domiciliary Care, and Long-Term Care Provider Organizations in each country.

Knowledge Transfer Strategies:
International Conferences, Academic Publications, Living Labs, Book proposal submitted

Target Audience:
Academics, policy makers, health care decision makers

Linkage to MLITSD's _Prevention Works_ Strategy:
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☐ Objective 2: Improve OHS knowledge and practices
☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Funders: Transatlantic Platform
Amount: $1.1 million, $200,000 for Canada

Project findings available in Open Access journals, platforms, or repositories:
Pending book publication that has been accepted.

Related Research Summaries:
In the past year the research team has met virtually on 8 occasions and in person once in Helsinki. The book was the main focus of the meeting. Three collaborations that will result in journal articles were also formed. The Canadian team is working with the UK team to write a methods paper on sound sourcing and engaging diverse precarious workers. The team also made a presentation to graduate students on the progress of the project in May 2023.

Abstract of the Canadian book chapter: Home and long-term care in Canada is dependent upon Personal Support Workers (PSWs) as the primary paid care workers. Turnover rates for PSWs pre-pandemic were in excess of 50% and currently over half of the workforce quits annually, with increased exits in home care. We seek to understand the retention factors by studying those who remain in the profession for the long term. Through interviews with PSWs who have tenure of over 10 years, we explore the personal reasons that these carers remain, the meaning they derive from their work, and future research directions to better understand and encourage additional retention.

Interviews and Articles:
Sanderson K & Hron R. Pending publication: Chapter 3: Understanding the Long-Term Retention of Personal Support Workers in Canadian Home and Long-Term Care. In Vulnerabilities in Paid Care Work: Transnational Experiences, Insights and Voices, Ed. Bowlby S, Jyrkinen M, Malinga M, & Sanderson K. Policy Press, 2025.

Sanderson K, Bawn C, Boonzaier F, & Lehtonen J. Pending publication: Chapter 6: Reconceptualizing precarity and agency: New ways forward. In Vulnerabilities in Paid Care Work: Transnational Experiences, Insights and Voices, Ed. Bowlby S, Jyrkinen M, Malinga M, & Sanderson K. Policy Press, 2025.

Jyrkinen M, Bowlby S, Malinga M, & Hron R. Pending publication: Chapter 1: Care and Vulnerabilities – ideas, concepts, methods. In Vulnerabilities in Paid Care Work: Transnational Experiences, Insights and Voices, Ed. Bowlby S, Jyrkinen M, Malinga M, & Sanderson K. Policy Press, 2025.

#1018: Evaluation of the WSN Safe Driving on Forest Roads Training Program

Reasons for the project:

One of the major challenges facing the forest industry is a shifting demographic. Many of the experienced drivers are transitioning to retirement and there is now an influx of new drivers, many of whom do not have experience driving on forest roads. The logging workplace risk assessment, which was completed in November 2017, identified distracted driving as the top risk for the sector. In response to the increase in driving related incidents, forest industry representatives from the Central Canada Sustainable Forestry Initiative Committee approached Workplace Safety North with an identified need to develop training resources to specifically address the driving related concerns. Hence, before implementing this program, we need to understand the effectiveness of the training program on drivers' knowledge and behavior.

Objectives of the project:

- Quantify the effect of a Safe Driving on Forest Roads training program on self-reported forest road driving behaviour and forest road driving knowledge.
- Conduct a process evaluation to determine the reach, compliance, appreciation, usage barriers, and users' perceived effectiveness of the training program.

Methods:

Quasi-experimental design (pre-training, post-training, 3- and 6-months follow-up), qualitative interviews

Status: Completed
Start Date: June 2021
End Date: November 2023

Research Team and roles:

Dr. Vicki Kristman (Principal Investigator)
Dr. Michel Bedard (Co-investigator)
Ms. Emily Boyko (Research Assistant)
Ms. Brianna Belanger (Research Assistant)
Ms. Mannila Sandhu (Research Assistant)
Ms. Aynsley Klassen (Research Assistant)
Ms. Foruzan Bahrami (Research Assistant)

Collaborators and Partners:

Chris Serratore (WSN)
Kelly Ann Smith (WSN)
Tom Welton (WSN)

Knowledge Transfer Strategies:

Dissemination through EPID Talks, publications, lay persons reports; further strategies to be developed by the EPID Knowledge Mobilization and Implementation group.

Target Audience:

Forestry sector employers; Forestry Road workers; Workplace Safety North. Significance to determine if the WSN training program translates to safer roads and thus is an effective tool.

Linkage to MLITSD's _Prevention Works_ Strategy:

☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight

☒ Objective 2: Improve OHS knowledge and practices

☒ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence

☐ Objective 4: Make OHS easier for small businesses

Project findings available in Open Access journals, platforms, or repositories:
Two papers in progress. To be submitted to Accident Analysis & Prevention or Transportation Research Part F: Traffic Psychology and Behaviour.

Related Research Summaries:

Background: The forest industry faces challenges due to demographic shifts and increased transportation-related incidents. This study evaluates the impact of a Safe Driving on Forest Roads training program on forest road driving behavior and knowledge, while also evaluating its implementation and effectiveness.

Methods: The study employed a quasi-experimental research design, focusing on forest road drivers within Northern Ontario who had not previously participated in the Safe Driving on Forest Roads training program. Workplace Safety North (WSN) recruited participating companies, aiding in registration for the training program. Participants completed pre- and post-training surveys, with follow-up surveys conducted at three and six months, along with the possibility of inclusion in a qualitative interview three months post-training. Surveys, encompassing a revised Driver Behaviour Questionnaire (DBQ-FR) and a knowledge assessment, were utilized to assess changes in behavior and knowledge. We initially validated the DBQ-FR survey through Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). Subsequently, behavioral changes were evaluated between pre-training and follow-up populations using paired sample t-tests. Similarly, for knowledge, comparisons were made between pre-training and post-training populations using paired sample t-tests, while the comparison between post-training and follow-up populations assessed knowledge retention. The effect sizes were determined using Cohen's D and Hedge's g.

Results: The pre-training survey had 114 respondents, post-training survey had 114, follow-up had 67, and 11 participated in interviews. The median age was 31 (IQR = 15.5). Validation of the DBQ-FR identified two factors: recklessness/complacency and dangerous actions. Paired sample t-tests comparing pre-training and three months post-training for recklessness/complacency showed a mean change of -0.21 (SD = 0.09), 95% CI [-0.39, -0.30], P-value = 0.02, Cohen's d = -0.46, indicating a medium effect size. Dangerous Actions showed a mean change of -0.05 (SD = 0.049), 95% CI [-0.15, 0.04], P-value= 0.8. Knowledge comparison pre- and post-training indicated a mean change of 0.12 (SD = 0.015), 95% CI [0.094, 0.15], P-value= 0.00, Cohen's d = 1.42, indicating a substantial effect size. Knowledge retention from post-training to follow-up showed a mean change of -0.05 (SD = 0.014), 95% CI [-0.074, -0.02], P-value= 0.00.

Conclusion: The study observed a medium effect size for the factors of recklessness/complacency in drivers' behavior. Furthermore, it noted a notable improvement in drivers' knowledge immediately following the training program and three months later compared to baseline.

Interviews and Articles:

Bahrami F, Kristman VL. In progress: Evaluation of the WSN Safe Driving on Forest Roads Training Program. To be submitted to: Accident Analysis & Prevention.

Bahrami F, Kristman VL. Validation of the Forest Road Driving Behaviour Questionnaire – Forestry Roads version (DBQ-FR). To be submitted to: Accident Analysis & Prevention.

Presentations:

Kristman VL. (2023, December 14) Forest Road Safe Driving Training Program Evaluation. Study Results presentation to Workplace Safety North. Lakehead University, Thunder Bay, Ontario.

#1019: Small Business, Big Hurdles? A Mixed-Methods Approach to Identify and Address the Barriers for Implementation of Occupational Health, Safety, and Wellness Practices

Reasons for the project:
Very little is known about what motivates small employers to initiate programs to protect and promote the health of their workers. Gaining knowledge into what motivates some small employers to prioritize worker health and what it would take to encourage others to do so is important for building the foundation of successful interventions.

Objectives of the project:
For small business owners who are health and safety champions, what are the motivations, rationalizations, and perceived and known benefits of their actions?

Methods:
In depth interviews and videos with health and safety champions

Status: Completed
Start Date: January 2023
End Date: September 2023

Research Team and roles:
Dr. Kathy Sanderson (Principal Investigator)
Dr. Vicki Kristman (Co-Investigator)
Research Assistants/Students

Collaborators and Partners:
Superior Mental Wellness at Work

Knowledge Transfer Strategies:
Three short videos will be developed to highlight the reasons why small business would benefit from Health and Safety programs.

Target Audience:
Small business owners in Northwestern Ontario, health and safety professionals, business associations and municipalities, academics.

Linkage to MLITSD's *Prevention Works* Strategy:

☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☒ Objective: Make OHS easier for small businesses

Funders: MLITSD via EPID@Work
Amount: $81,000

Project findings available in Open Access journals, platforms, or repositories:
The videos will be available, and a paper or case study is in progress.

Related Research Summaries:
Three Health & Safety videos were created through 6 employer participants. They were launched at EPID@Work's Research Into Action Conference, October 2023.

Sanderson K & Whitney J. Video 1: What does 'safe' mean in your workplace? 2024.

Sanderson K & Whitney J. Video 2: What are the benefits of a safe workplace? 2024.

Sanderson K & Whitney J. Video 3: What contributes to a safe workplace culture? 2024.

Sanderson K & Whitney J. Video 4: How do you promote mental well-being at work? 2024.

Presentations:
Sanderson K. Video series: Local Health & Safety Champion. EPID@Work's Research Into Action Conference, October 2023.

#2017: Resilience Factors in Work-Related Amputation and Work Reintegration

Reasons for the project:

Workers affected by work-related amputation (WRA) are more likely to have mental health problems than their counterparts without amputation, which may impede their resilience to work reintegration after WRA. Identifying and providing comprehensive information on resilience factors for developing psychosocial problems could help facilitate their return to work after WRA.

Objectives of the project:

This project proposes to address two questions under the umbrella topic: the quality of life after work-related amputation:

1. What factors are associated with resilience among workers with a work-related amputation?
   (a) Do these factors influence a worker's reintegration to work after amputation?
   (b) Do these factors differ by industry sector?
   (c) Do the resilience factors differ by occupational and non-occupational-related amputation?
   (d) What are the resilience factors for developing psychosocial problems?
2. To what extent are resilience factors captured in recovery and reintegration programs initiated by workplace insurance implementing bodies and employers for work returnees after work-related injuries, including amputations?

Methods:

The proposed project will be conducted using a systematic review. The systematic review aims to assess the state of knowledge in resilience factors among workers with WRA, identify gaps and prioritize future research needs.

Status: Completed
Start Date: March 2023
End Date: March 2024

Research Team and roles:

Dr. Sam Essien

Collaborators and Partners:

Workplace Safety and Insurance Board (WSIB), Community Partners including Steve Mantis, and War Amps Canada, Association of Workers' Compensation Boards of Canada

Knowledge Transfer Strategies:

An integrated knowledge translation strategy will be adopted, including sharing knowledge gained with the MLITSD, Workers' Compensation Organizations, employers and workers affected by amputation, and presenting findings at conferences and scientific journal publications.

Target Audience:

Targeted audiences will be policy makers, Workers' Compensation Organizations, employers, and workers affected by amputation. The proposed research will help address the gaps in (1) resilience factors and (2) resilience factors for developing psychosocial problems in workers affected by WRA, and (3) prioritize a need for research among workers in Ontario.

Linkage to MLITSD's *Prevention Works* Strategy**:**

☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight

☐ Objective 2: Improve OHS knowledge and practices

☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence

☐ Objective 4: Make OHS easier for small businesses

Funders: SRC Research Development Fund (RDF)-Lakehead University Internal grant
Amount: $7,000
Dates: March 2023-March 2025

Project findings available in Open Access journals, platforms, or repositories:
Psychosocial facets of resilience that promote the return to work in people affected by work-related limb loss: A systematic review. Submitted to Work and Occupation Journal, March 2024. This manuscript is currently under review; a preprint will be posted once it is accepted for publication.

Related Research Summaries:
I have also submitted a work-related manuscript titled " Do unemployment rates impact workers compensation claims? Analysis of 10 years of WCB data" to the Canadian Journal of Public Health, which is currently reviewing this research work for publication.

Interviews and Articles:
Essien SK, Chireh B, Steinberg C, Omondi P. (2024). Investigating factors that promote resilience and work reintegration among workers affected by work-related limb loss: A systematic review. For Publication to: Work and Occupation Journal (Submitted March 2024).

Presentations:
Essien SK. Resilience factors in Work-related amputation and work reintegration. Canadian Society of Epidemiology and Biostatistics. Halifax, Nova Scotia, June 26-28, 2023.

Knowledge Mobilization and Implementation

Knowledge Mobilization and Implementation research is an emerging field at the EPID@Work Research Institute. After a lengthy recruitment process, our KMI scientist, Dr. Marilee Nugent, was hired in September of 2023. Following her appointment, Dr. Nugent has spent the last two quarters of this fiscal year familiarizing herself with EPID@Work and our current research projects, assessing and evaluating existing KMI tools for the institute, prioritizing KMI initiatives, writing activity plans for future KMI projects, and collaborating with the KMI team to further develop internal KMI capacity.

KMI activity plans have been submitted for the 2024/2025 fiscal year and Dr. Nugent, alongside the KMI team, look forward to expanding the operations and capacity of the institute and their knowledge mobilization research efforts.

Seed Grants

#4000: How is Stigma Described and Discussed in the Injured Worker Literature? A Scoping Review

Reasons for the project:

The injured worker literature frequently describes the experiences and contexts in which stigma exists, but without application of a stigma lens, which diminishes awareness and action to correct the impact of stigma for this group. This also makes it challenging for researchers to identify and gain insight into injured worker stigma (for example, when attempting a systematic review, or other ways of using the literature to impact anti-stigma policy and intervention). As the goal of our team's research collaboration is to highlight, alleviate, and disrupt injured worker stigma, it is important that we first understand how stigma is talked about, referenced, described, and discussed.

Objectives of the project:

Our team's cursory investigation of the injured worker literature suggested to us that the term "stigma" is rarely used; stigma is discussed, but not necessarily using that or related terms. Rather, the experiences and contexts in which stigma exist are described, but without application of a stigma lens, which diminishes the awareness and the action to correct the impact of stigma on injured workers. This also makes it challenging for researchers to identify, access, and gain insight into injured worker stigma (for example, when attempting a systematic review, or other ways of using the literature to impact anti-stigma policy and intervention). As the goal of our team's research collaboration is to highlight, alleviate, and disrupt injured worker stigma, it is important that we first understand how stigma is talked about, referenced, described, and discussed (the aim of the project herein). This will help inform the descriptors and key words that we will use in our ongoing research which includes a systematic review into the impacts of stigma. It will also inform the Canadian Injured Workers Alliance (CIWA)'s awareness-building about injured worker stigma.

Methods:

We conducted a scoping review using the PRISMA-ScR protocol, retrieving 4452 records for review. After applying the scoping review inclusion and exclusion criteria, a total of 100 articles were included in the final review. Approximately half of articles that included a focus on injured worker stigma used the term "stigma", and only 11% used this term consistently throughout the paper. Other terms used to describe stigma experiences included "experiences", "barriers", "attitudes" and "judgements".

Status: Completed
Start Date: March 2023
End Date: March 2024

Research Team and roles:
Dr. Amanda Maranzan (Principal Investigator)
Lynn Cooper (Canadian Injured Workers' Alliance – Research Coordinator)
Minerva Porelle (Canadian Injured Workers Alliance – National Coordinator)
Dr. Lynn Shaw (Western University)
Lauren Reynolds (Graduate Student)
Mila Popovic (Graduate Student)
Chelsea Noël (Graduate Student)

Collaborators and Partners:
Our project team consists of an academic/community collaboration. CIWA is a Canadian not-for-profit that strives to improve the health, wellbeing, and support of Canadians injured in the workplace and their families and embraces the voices and perspectives of injured workers within its mandate and activities. CIWA builds awareness of the negative impacts associated with work injury for Canadians that include physical issues such as chronic pain, and permanent impairment, psychological challenges such as depression and stigma, and systemic barriers for supports. Through consultation and research, CIWA takes a leadership role in partnering toward solutions for improving outcomes and creating supportive programs for injured workers and other stakeholders. Our project team shared the results of the scoping review with our Project Advisory Team, currently attached to our SSHRC-funded stigma research project. This includes representation from injured workers, medical professionals, legal and insurance experts, employers, and partners in the disability field. Also, the CIWA Research Coordinator met frequently with our team to provide a lived experience perspective and expertise to our work.

Knowledge Transfer Strategies:
- Plain language summaries, French language translation (CIWA website, social media)
- Publication
- Conference presentation
- EPIDTalks seminar

Target Audience:
Project findings are directly relevant to stakeholders including injured workers, employers, union representatives, health care and other providers, insurance providers and disability organizations. Findings are directly relevant to CIWA's current discussions with the Federal Minister of Labour regarding health and safety for workers in the forest industry.

Linkage to MLITSD's *Prevention Works* Strategy:
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☐ Objective 2: Improve OHS knowledge and practices
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☐ Objective 4: Make OHS easier for small businesses

Funders: EPID@Work Seed Grant Fund
Amount: $20,000
Date: March 2023 – March 2024

Project findings available in Open Access journals, platforms, or repositories:
We plan to have a peer-reviewed journal, based on the scoping review findings, submitted by the end of summer 2024.

Related Research Summaries:
There were 4452 records identified from database searches, and 1 from other sources. Before screening, duplicate records were removed (N = 603), resulting in N = 3850 records screened. A sub-set were sought for retrieval and N = 996 were assessed against the eligibility criteria. Among the articles excluded, 477 were excluded due to not focusing on an injured worker demographic, 279 were not

stigma-related, 39 were not in English, and 23 were excluded for "other" reasons. A total of 100 studies were included in the final scoping review.

Only 48% of articles discussing experiences of injured worker stigma use this specific term in their paper. Of those articles, only 11% used the term "stigma" consistently throughout the paper. Other terms used to describe stigma experiences included "experiences", "barriers", "attitudes" and "judgements". Sometimes, researchers used terms that are more closely related to stigma, such as "discrimination" and "stereotypes".

Interviews and Articles:
Maranzan A. In preparation: How is stigma described and discussed in the injured worker literature? A scoping review.

"Injured worker stigma", Chronicle-Journal "Research In Action" feature (also posted to "Research In Action" LU website).

Presentations:
Popovic M, Nöel C, Reynolds L, & Maranzan KA. How is stigma described and discussed in the injured worker literature? A review of methodology. EPID@Work's Research into Action Conference, Thunder Bay, Canada, October 17, 2023. (Panel presentation)

Maranzan KA, Reynolds L, Popovic M, Knaak S, Cooper L, Shaw L, Nöel C, Porelle M, & Gibbons V. Stigma and the workplace. Together Against Stigma Conference, Reykjavik, Iceland, (accepted for June 2024). (Peer reviewed symposium)

Maranzan KA. How is stigma described and discussed in the injured worker literature? A scoping review. EPID@Work Tri-Annual Meeting. Thunder Bay, September 28, 2023.

#4001: Moral Distress During the Pandemic: Impacts on the Mental Health of Long-Term Care Home Staff

Reasons for the project:
COVID-19 restrictions in Canadian long-term care LTC homes led to an increase in ethical dilemmas and resulted in moral distress. While research has shown moral distress among LTC home staff related to the national and provincial context, little is known of how Northwestern Ontario LTC home staff have been impacted. The purpose of this qualitative study was to gain an in-depth understanding of local LTC home staff's experiences of moral distress during the pandemic, and the subsequent impacts on their mental health, as well as their resilience and adaptation.

Objectives of the project:
The purpose of this qualitative study was to gain an in-depth understanding of long-term care home (also called nursing homes) staff's experiences of moral distress during the pandemic, and how they adapted and coped with restrictive COVID-19 regulations.

Methods:
We conducted semi-structured interviews via Zoom web conferencing with LTC home staff (n=15) in Thunder Bay and region. We used a voice-centered relational analysis to situate participants' perspectives in social contexts. We found that staff had no means to report consequences of COVID-19 restrictions and harm to residents without being sanctioned (e.g., job loss). Ongoing restrictions were maintained without examining ramifications or without seeking consultation from front line workers. Participants felt helpless and hopeless. Some felt remorse and shame that they did not speak out. If we want to address recruitment and retention issues in LTC homes, frontline staff need to be consulted and heard when developing policies that affect everyday care. Additionally, LTC home staff require ongoing professional support to assist in coping with the psychological injuries that they have incurred.

Status: Completed
Start Date: March 2023
End Date: March 2024

Research Team and roles:
Dr. Sutherland (Principal Investigator)
Dr. Wiersma (Consultant)
Dr. Lynn Martin (Consultant)
Dr. David Thompson (Consultant)
Caroline Sabotig (Graduate Research Assistant)

Collaborators and Partners:
1) The Schlegel Research Institute for Aging Think Tank on Moral Distress in LTC
2) Pioneer Ridge Long-Term Care Home
3) Centre for Education and Research on Aging & Health

Knowledge Transfer Strategies:
1) We plan to present the study and findings at EPIDTalks in June 2024

2) We plan to present the study and findings at EPID conference, Oct 22, 2024

Target Audience:
Findings from this study will produce new knowledge that will be important to assist with retention of LTC home staff, particularly during potentially dangerous outbreaks of infectious diseases. This new knowledge may inform future tools to assess mental health due to moral distress. Additionally, this study may help to empower nurses and PSWs who may not have opportunities to voice their concerns.

Linkage to MLITSD's _Prevention Works_ Strategy:
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☐ Objective 2: Improve OHS knowledge and practices
☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Funders: EPID@Work Seed Grant Fund
Amount: $19,960
Date: March 2023 – March 2024

Project findings available in Open Access journals, platforms, or repositories:
We have submitted an abstract to Canadian Association on Gerontology

Related Research Summaries:
The purpose of this qualitative study was to gain an in-depth understanding of long-term care home (also called nursing homes) staff's experiences of moral distress during the pandemic, and how they adapted and coped with restrictive COVID-19 regulations.
We interviewed 15 LTC home staff from Thunder Bay and the region for approximately 40 to 50 minutes. We asked open-ended style questions via Zoom technology and recorded and transcribed the interviews. We used a voice-centered relational analysis to analyze data, which involved: first, repeatedly reading transcripts to become familiar with them; second, searching for how participants identified themselves in using the term "I"; third, we examined how participants saw themselves in relation to other people; and finally, we looked at how the participant situated themselves within society and social identities (e.g., gender, status). We looked for patterns and coded them into categories and broader themes.
We found that LTC home staff were afraid to report how ongoing regulations were resulting in harm to residents. They struggled with enforcing restrictions that went against their principles of providing quality care. They felt deep remorse that they did not speak out about the suboptimal care they had witnessed. Although they were called 'heroes' initially, they felt abandoned and betrayed by society in general as restrictions continued. These findings suggest that LTC home frontline workers should be involved in decisions that involve direct care. Moreover, they require ongoing support to assist with the psychological injuries that they have incurred.

Presentations:
Sutherland N. Schlegel Research Institute for Aging Think Tank on Moral Distress in LTC. Waterloo, Canada, September 29, 2023.

Sutherland N. Centre for Education and Research on Aging & Health (CERAH) lunch and learn. December 13, 2023.

Sabotig C. Moral distress during the pandemic: impacts on the mental health of long-term care home staff. EPID@Work Tri-Annual Meeting. Thunder Bay, September 28, 2023.

#4002: Addiction Disability: Workplace Attitudes and Practices in Northwestern Ontario

Reasons for the project:
This project surveyed employees and employers in Northwestern Ontario about addiction as a disability. Participants (n=390) self-identified as an employee or an employer to differentiate findings. Preliminary results indicate that 25% of employees and 14% of employers were unaware that workplaces are required to accommodate an employee's disability. Furthermore, 45% of employees and 24% of employers were unaware that addiction is a disability in Canada.

Objectives of the project:
The main expected outcomes of the study were:
1) Increased knowledge about attitudes and beliefs about addiction in general, addiction as a disability, and workplace accommodations from both employees and employers
2) Increased knowledge of employees and employers' awareness of the designation of addiction as a disability and duty to accommodate
3) Increased knowledge about how addiction is supported, or not, as a disability within the workplace
4) Increased understanding of the types of environments that are conducive to disclosures
5) Increased awareness about the types of accommodations provided to employees with an addiction

Methods:
The project was advertised through a number of venues to raise community awareness and recruit participants. Participant recruitment was supported by pre-existing community partnerships of the research team, EPID@Work social media platforms and website, LinkedIn promotion and a dedicated Facebook page with a targeted northwestern campaign.

This project utilized survey design with the goal of easily reaching both employers and employees. The survey specified Northwestern Ontario workplaces and asked participants to select whether they were an employee or an employer. This approach allowed for the survey to focus on the target population and differentiate the findings based on workplace responsibilities and legal obligations. The survey was provided on an online secure survey platform. Participants were able to access the survey via QR codes on posters, via workplaces sharing the study link via email or via Facebook advertising with the direct survey link.

The survey engaged 445 participants in the survey, with 390 participants completing the survey. This surpassed the target goal of 100 participants, thereby providing a greater pool for results. 303 identified as an employee, 50 as an employer and 37 did not indicate which group they belonged to.

Status: Completed
Start Date: March 2023
End Date: March 2024

Research Team and roles:
Dr. Abigale Sprakes (Principal Investigator)
Dr. Kathy Sanderson (Co-Investigator)
Sydney Ambury (Research Assistant)
Maris Murray (Research Assistant)

Collaborators and Partners:
Workplace connections within the healthcare and social service field in Thunder Bay and District were established. These connections were leveraged to disseminate the online survey within leadership and employee groups. A new linkage was made between Dr. Sprakes and the Institute for Work & Health specific to opioids in the workplace, where future research partnerships will be explored. This grant supported attendance at the IWH research forum on *Opioids and Work: Evidence, Perspectives and Looking Ahead*, that helped to solidify this linkage.

Knowledge Transfer Strategies:
1) Oral Presentations: In the fall of 2024, two EPID lead opportunities will be utilized to disseminate the study's results: 1) EPID Conference - October 2024 and 2) EPID Talks - November 2024. External conference or webinar opportunities will be further explored.
2) Poster/Infographic creation: In the summer of 2024, posters and infographics will be created as a way to easily present the findings in formal, impromptu and workplace environments.
3) SSHRC funding opportunity: Insight Development Grant will be pursued.

Target Audience:
Targeting organizations, businesses and membership bodies in Northwestern Ontario, this study will provide insights into values and beliefs about addiction as a disability in the workplace. These insights will inform how workplaces currently perceive individuals with an addiction, addiction as a disability, and how accommodations are applied and received. The targeted journal for publication is the Canadian Journal of Administrative Sciences.

Linkage to MLITSD's *Prevention Works* Strategy:
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Funders: EPID@Work Seed Grant Fund
Amount: $20,000
Date: March 2023 – March 2024

Project findings available in Open Access journals, platforms, or repositories:
Manuscript development Summer 2024, submission to the Canadian Journal of Administrative Sciences.

Related Research Summaries:
The project was advertised through a number of venues to raise community awareness and recruit participants. Participant recruitment was supported by pre-existing community partnerships of the research team, EPID@Work social media platforms and website, LinkedIn promotion and a dedicated Facebook page with a targeted northwestern campaign.
This project utilized survey design with the goal to easily reach both employers and employees. The survey specified Northwestern Ontario workplaces and asked participants to select whether they were an employee or an employer. This approach allowed for the survey to focus on the target population and differentiate the findings based on workplace responsibilities and legal obligations. The survey was

provided on an online secure survey platform. Participants were able to access the survey via QR codes on posters, via workplaces sharing the study link via email or via Facebook advertising with the direct survey link.

The survey engaged 445 participants in the survey, with 390 participants completing the survey. This surpassed the target goal of 100 participants, thereby providing a greater pool for results. 303 identified as an employee, 50 as an employer and 37 did not indicate which group they belonged to.
As the study is currently in the data analysis phase, preliminary findings are not yet available. However, descriptive statistics of the participants are available. The study participants consisted of **83% women**, 11.8% men, 2% non-binary, 1% two-spirit; the, age ranges were 18-20 =.5%, 20-29 = 21.8%, **30-39 = 26.93%,** 40-49 = 26.67%, 50-59 = 20% and 60+ 4%; ethnicity (more than one selection was permitted) **White/European = 78.46,** and First Nations, Indigenous & Metis = 30.5; and education level **college diploma/certificate 37%,** university undergraduate degree, 30%, university masters 14% and high school 11.3%. The workplaces were in **Thunder Bay District 81%,** Kenora District 10%, and Rainy River 7%, service sectors included **Healthcare 32%,** Social Assistance 18%, Education 9%, Public Administration 7% and Accommodation and Food Services 3.6%. Employer size 1-4 employees = 3.3%, 5-9 = 17.4%, 20-49 = 18.2%, 50-99 = 12%, **100-299 = 28%,** 300-499 5.4%, 500+ = 16%; and the length of the time with their employer, less than a 1 yr = 17.2%, **1-4 yrs = 32.3%**, 5-9 yrs 19.5%, 10-14 yrs = 12.3%, 15-24 yrs = 12.3%, and 25+ = 6.4%.

Even before a full analysis of the findings the study has uncovered a number of key findings 1) 24.8% of employees and 14% of employers were unaware that workplaces are required to accommodate a disability, more specifically 2) 44.9% of employees and 24% of employers were unaware that addiction is a disability, and 3) 26% of employees and 25% of employers do not believe that workplaces should accommodate addiction as a disability. Three more critical findings are 1) 48% of employees would not disclose their substance use to their employer if they needed help, 2) 60% of employers reported they have never received training to recognize the signs and symptoms of addictions and lastly 3) even when an employer did have concerns about an employee's substance use 26% did not approach (duty to inquire) that employee.

Presentations:
Sprakes A. Addiction disability: Workplace attitudes and practices in Northwestern Ontario. EPID@Work Tri-Annual Meeting. Thunder Bay, September 28, 2023.

#4004: Mental Health Well-being and Mental Health Help-seeking Among Farmers and Farm Families in Northwestern Ontario

Reasons for the project:

In a decade (2012-2021), northern Ontario farms have expanded from 1,782 to 2,261, reflecting an overall revenue increase over the period from $160 million to $230 million. However, these farms are not without economic, social, and more importantly environmental challenges, especially from bad weather which may lead to stress from uncertainties related to farming jobs and subsequently putting farm workers at risk of lower mental health. To mitigate the impact of mental health on farmers and farm families, a federal-provincial-territorial initiative referred to as Farmers' Wellness Programs supported by the Ontario Canadian Mental Health Association (CMHA) and Ontario Federation of Agriculture was introduced in September 2022 specifically to support the mental health of farmers and farm families. Despite introducing this novel initiative, there is a gap in knowledge as the extent of awareness and its effects on mental health-seeking behaviour among northern Ontario farmers is currently unknown/or assessed. The results of this project will further produce valuable information to address the knowledge gap in farmers' and farm families' mental well-being and to offer recommendations for further research needs.

Objectives of the project:

1. To assess the mental wellness of people working in agriculture in Northwestern Ontario
2. To assess the mental health help-seeking among farmers and farm families in Northwestern Ontario
3. To understand the mental health coping styles among study subjects and assess predictors of lower mental health and help-seeking intentions among farmers and farm families in Northwestern Ontario

Methods:

Our proposed study will be embedded into the original Northwestern Ontario Workplace and Worker Health Study (NOWWHS cohort study), an ongoing open cohort study that started in the fall of 2023. Following initial discussions with partner farming organizations such as the Ontario Federation of Agriculture (OFA) and Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), we will adopt a community-based participatory action research approach by collaborating with them in all project planning, implementation, and evaluation aspects. As a first step, the project will develop a standardized survey instrument (questionnaire) with content input from the above-mentioned community partners and collaborators. As a second step, piloting of the survey instruments will be conducted in a sample of farmers and farm families across Northwestern Ontario to determine the survey's instrument's reliability, validity, appropriateness of survey length, optimal survey administration methods (online vs. in-person vs. mailing) and timing of the survey completion. The piloting phase will help shape the survey instrument to maximize the response rate and minimize any challenges respondents may encounter in answering the survey questions. Data collection for this study at baseline and follow-up will capture content areas, including participant demographics (e.g., age and gender), help-seeking, and attitude towards seeking help will be measured using a combination of 24-item scales on attitude towards mental health services seeking and psychological distress using the 10-items Kessler Psychological distress scale.

Status: Ongoing – Under REB review
Start Date: December 2023
End Date: December 2024

Researcher Team and roles:
Dr. Samuel Kwaku Essien (Principal Investigator)
Dr. Batholomew Chireh (Co-investigator)
Dr. Peter Brink (Co-investigator)

Collaboration and Partnerships:
EPID@Work (Enhancing the Prevention of Injury & Disability @ Work) Research Institute, Ontario Federation of Agriculture (OFA) and Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA).

Knowledge Transfer Strategies:
An integrated knowledge translation strategy will be adopted, including sharing knowledge gained with the MLITSD, Ontario Federation of Agriculture (OFA), Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), farmers and farm families and also presenting the finding at the annual Northern Ontario Agriculture Conference.

Target Audience:
Targeted audiences will be policy makers, employers, farm workers and farming organizations. The results of this project will further produce valuable information to address the knowledge gap in farmers' and farm families' mental well-being and mental health-seeking behaviour and proffer recommendations for further research needs.

Linkage to MLITSD's *Prevention Works* Strategy**:**
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
☐ Objective 4: Make OHS easier for small businesses

Funders: EPID@Work Seed Grant Fund
Amount: $20,000
Start Date: December 2023

Project findings available in Open Access journals, platforms, or repositories:
Targeted journals: Work and Occupation Journal, impact factor 2.9; Workplace Health & Safety, impact factor 2.6

Related Research Summaries:
The research project began on January 5, 2024, and is carried out in two phases: 1) using a survey and 2) an interview to explore mental health well-being and mental health-seeking intentions and coping strategies of farmers and farm families. So far, the following have been completed: we have built research collaborations with farmers' associations and other stakeholders, developed questionnaires, secured ethics approval, launched the survey, and started data collection. To obtain substantial samples, the research team plans to end data collection by October 2024.

Knowledge Mobilization and Implementation

The Knowledge Mobilization and Implementation (KMI) team at the EPID@Work Research Institute is committed to mobilizing research through partnership development, public relations, KMI activities and evaluation for quality improvement and impact tracking.

In 2023/2024, we focused our KMI efforts on capacity-building within the KMI team, growing and strengthening community networks/outreach, expanding our events and KMI activities, promoting EPID research, assisting in research participant recruitment, and continuing with project-specific knowledge mobilization activities.

KMI Team

As of October 2023, the KMI team is working at full capacity with a KMI Scientist, KMI Specialist, and Communications Specialist.

Community Network/Outreach

EPID's KMI team has significantly increased their community networking and outreach efforts. Throughout 2023/2024, EPID both hosted and attended several community events to promote our research projects, increase brand awareness, create opportunities for knowledge mobilization and encourage collaboration & partnerships with knowledge users throughout the region.

These efforts have included research conferences, seminar series, online webinars, trade shows, consultation meetings, community events, lunch & learns, and more.

EPID Talks

Date	Title	Attendance	Outcomes
April 2023	Renew NWO: Barriers and Ways Forward for Employed Newcomer Women Dr. Kathy Sanderson, Lakehead University – Department of Business Administration	37	Showcase EPID Research
June 2023	Opioid-Related Harms Among Ontario Workers in the Occupational Disease Surveillance System Dr. Jeavana Sritharan, Occupational Cancer Research Centre & Dr. Nancy Carnide, Institute for Work & Health	50	Showcase EPID Research
September 2023	Help! I Need Somebody: Help-Seeking Among Workers with Self-Reported Work-Related Mental Disorders Dr. Fergal O'Hagan, Trent University – Department of Psychology	31	Showcase EPID Research
December 2023	Navigating WCB-Funded Projects: Uncovering Workplace Factors Impacting Workers' Compensation Outcomes Dr. Vicki Kristman & Mannila Sandhu, EPID@Work	36	Showcase EPID Research

February 2024	Welcoming Differences: Diversity-Driven Onboarding Dr. Kathy Sanderson, Julia Whitney & Ryan Hron, Lakehead University – Department of Business Administration	44	Showcase EPID Research

Community Networking

Date	Conference	Attendance	Outcome
June 2023	Nokiiwin Partnership Event	61	Re-signing the partnership agreement and discussing the latest research projects looking at labour force participation in Nokiiwin communities
November 2023	Forum North 2023: Partners in Prevention (Presented by WSPS)	Unknown	Announce the official launch of the NOWWHS, connect with other businesses & organization in the provincial OHS system, gather KMI data (survey by Marilee)
January 2024	Prosperity Northwest Conference	300+	Connect with Chamber of Commerce members, regional businesses & organization, promote participation in NOWWHS
February 2024	Nokiiwin Tribal Council's Oshki-Nochmoowin Conference	100+	Connect with Indigenous organizations, businesses & communities to promote Indigenous kickout of NOWWHS
February 2024	Chamber of Commerce AGM & Gala	60	Connect with Chamber of Commerce members, regional businesses & organization, promote participation in NOWWHS
February 2024	LU'S Research & Innovation Week Community Engagement Event	150+	Connect with community members & general public to raise awareness about EPID, our research, and the NOWWHS
February 2024	LU Poster Presentation event for Research & Innovation Week	75+	Demonstrate EPID's involvement in Research & Innovation week, connect with undergraduate and graduate students, promote EPID research & NOWWHS

Research Into Action Conference 2023
EPID's largest KMI undertaking this fiscal year was hosting the inaugural Research Into Action Conference 2023. This large-scale event brought together researchers, community members, employers, and workers to explore the importance of regional research and collaboration.

With community discussion panels, research presentations, interactive workshops, networking, and more, this event was attended by various government representatives, business owners, and health & safety professionals from throughout Northwestern Ontario; the RIA Conference ultimately played an important role in building and strengthening our community networks.

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October 17, 2023 – Thunder Bay, ON
20 Speakers – 63 Attendees
Outcomes: Increase public awareness, gain new contacts, showcase EPID research

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Conference Presentations	*Speakers*	*Outcomes*
Community Leader Discussion Panel	**Councilor Dominic Pasqualino**, City of Thunder Bay **Dr. Andrew Dean**, VP Research & Innovation, Lakehead University **Audrey Gilbeau**, Executive Director, Nokiiwin Tribal Council **Charles Cirtwill**, President & CEO, Northern Policy Institute **Margaret Cernigoj**, Ministry of Labour, Immigration, Training and Skills Development	The community discussion panel will ask employer, employee, union, and community representatives about why research matters in NWO, how research can help your specific employer or organization, and what changes they would like to see within our region.
Building Research Together: The Experience of the Nokiiwin Tribal Council and the EPID@Work Research Institute	**Dr. Vicki Kristman**, EPID@Work Research Institute **Audrey Gilbeau**, Nokiiwin Tribal Council	How the partnership between the Nokiiwin Tribal Council and Dr. Kristman's Research Team, which rolled into the EPID@Work Research Institute in 2018, developed and continues to flourish. We will highlight the work done under the partnership, including the receipt and completion of projects under three tri-council grants, culminating in a Lakehead University Indigenous Partnership Research Award and resigning of our partnership agreement.
Current Research on Occupational Health and Safety	**Dr. Deborah Scharf**, EPID@Work Research Institute **Joanne Kao, Chelsea Noël & Mila Popovic**, Lakehead University	This session will include presentations of three EPID@Work funded projects addressing different aspects of occupational mental health. Dr. Deborah Scharf, a clinical and health psychologist and EPID@Work's mental

		health lead, will facilitate a discussion among the presenters of aligned learnings and themes.
Workshop: Key concepts in Knowledge Mobilization & Implementation PRACTICE	**Dr. Marilee Nugent,** EPID@Work Research Institute	The first half of this session will present key aspects of what's involved in doing Knowledge Mobilization & Implementation (KMI), along with some fun and inspiring examples of excellent KM providers, KM products and KM stories. The second half of this session will have audience members break out into activity groups to practice developing specific aspects of an engaged research plan based on their own research.
Community Member Discussion Panel	**Lynda Fraser**, Health Promotion Planner, Thunder Bay District Health Unit **Jason Thompson**, Owner, Superior Strategies **Steve Mantis**, Thunder Bay & District Injured Workers Support Group **Gary Christian**, Executive Director, North Superior Workforce Planning Board **Dave Lundy,** Health & Safety Officer, OPSEU/SEFPO	The community discussion panel will ask employer, employee, union, and community representatives about why research matters in NWO, how research can help your specific employer or organization, and what changes they would like to see within our region.
The Northwestern Ontario Workplace & Worker Health Study: A Community Research Tool	**Dr. Vicki Kristman**, EPID@Work Research Institute	This presentation will outline the development and design of the NOWWHS cohort study. Dr. Kristman will describe how the data collected from this study can be used as a community research tool for surveillance, problem identification, prognosis, and intervention development and assessment.
Using Research for Positive Change	**Steve Mantis**, Thunder Bay & District Injured Workers Support Group **Robin Faye,** Thunder Bay New Directions Speakers' School	In this session, we will explore how to involve community members in research, using the Research Action Alliance on the Consequences of Work Injury (RAACWI) as a case example. RAACWI was an eight-year initiative with a strong community-university

				partnership that helped create positive outcomes for individual workers with disabilities, new policies and practices in government and increased capacity in the academic community.
Newcomers and Work: NWO Discoveries	**Dr. Kathy Sanderson**, EPID@Work Research Institute **Stacey Platt,** Thunder Bay Community Economic Development Commission			New immigrants face unique employment barriers in NWO. In this session, we will discuss the key findings from two research projects and explore how community partners and best practices in EDI were invaluable.

Research Recruitment & Knowledge Mobilization

Many of EPID's events – both hosted and attended – have helped to recruit research participants for our various research projects as well as mobilize knowledge generated from these projects.

Research Recruitment

Date	Title	Location	Attendees	Outcome
October 2023 – March 2024	NOWWHS Presentation	16 different business in NWO	201	Inform and recruit workplaces to participate
April, May, September 2023	NOWWHS Consultation Meetings	Paramedics, Nursing, PSW	28	Discussing the kickouts of NOWWHS & invite participation/support
January – March 2024	NOWWHS Collaboration Meetings	CityStudio, OHCOW, WSN, Dilico, PSHSA	13	Discuss NOWWHS and inquire about a letter of support for CIHR grant
February 2024	EPID Collaboration Meetings	Community Zone	4	Discuss opportunities for collaboration & partnership between EPID & Community Zone
March 2024	Immigrant Worker Community Connect	Public Library	5	Connect with Immigrant workers to promote their participation in NOWWHS

Knowledge Mobilization Activities

Date	Title	Presentation	Event	Attendees	Outcome
April 2023	Welcome to EPID: KMI Team, NWO Demographics, OHS System, and MLITSD	Presentation	EPID Tri-annual Meeting	25	A research overview and update

September 2023	EDI in the Research Process	Presentation	EPID Tri-annual Meeting	32	A research overview and update and professional development
January 2024	Impact and Integrated KMI	Presentation	EPID Tri-annual Meeting	34	A research overview and update and professional development
February 2024	Northwestern Ontario Workplace & Worker Health Study	Presentation	St. Joseph's Care Group Showcase of Health Research	100+	Present various EPID@Work research projects
	'Nothing Made Sense': Long-Term Care Home Staff's Experiences of Moral Distress During the Pandemic"	Poster Presentation			
	The Effect of Motivational Interviewing Training on Undergraduate Nurses' Self-Efficacy, Knowledge, Attitudes, and Subjective Norms: A Comparison of Two Learning Styles	Poster Presentation			
	Workplace Job Stress Interventions: A Scoping Review	Poster Presentation			
	Wiiji PeerConnect: Evaluating an Indigenous Workplace Mental Health App	Poster Presentation			

February 2024	What Can Employers Do to Keep Employees Healthy? Build a Hockey Team: Eight Important Workplace Factors Impacting Employee Health and Disability	Presentation	Lakehead University Distinguished Researcher Talk	Unknown	Showcase EPID research & celebrate accomplishments and recognition of EPID researchers
March 2024	The Mental Health of Working Seniors: Prevalence and determinants of depression and anxiety disorders	Panel & Presentation	Lunch & Learn	30 (10 New Contacts)	Present Dr. Chireh's research as part of his CIHR Cafe Scientifique grant, connect with working seniors & promote their participation in NOWWHS

Performance Indicators/Impact Tracking

As EPID's KMI team continues to grow and develop, our performance indicators have been updated to better allow for impact tracking across the institute's varied activities.

A significant aspect of these activities includes our various communication efforts and expanding our social media reach. Most of the platforms and indicators were implemented during this fiscal year, so growth will be tracked going forward, year to year. The following table outlines the numbers at the end of the fiscal year.

Area	Platform	Number
Social Media Followers	Facebook	77
	Instagram	104
	Twitter/X	43
	LinkedIn	716
Social Media Engagement	Facebook accounts reached	95,600
	LinkedIn Clicks	622
	Facebook Clicks	6,600
	Instagram Posts	48
Webpage Visits	EPID@Work	1,164
	NOWWHS	5,519
Subscribers	Mailing List	280
Advertisements	Unique Campaigns	15

Operations

The EPID@Work Research Institute has spent the first few years of funding building up the team and resources to be able to focus on research. Heading into the 2023/24 fiscal year, the Institute has been almost at full staffing capacity which has allowed the focus to fully be on projects, research and data collection. The following section outlines the operational running of EPID@Work over the past year, apart from the research activities. This includes the Institutes' commitments for the year and the progress towards them, the challenges and risks that have occurred, the corporate services and infrastructure utilized, and the resources and assets being developed.

Progress and Results on Objectives and Commitments

Objective	Commitment	Progress
Advancing OHS Research Capacity		
Establish high-quality data resources.	The NOWWHS Cohort study and the initiation of CHIRPP in Thunder Bay will create two high quality data sources that will attract students and researchers.	The NOWWHS Cohort study is in progress, with baseline data projected to be complete by end of 2025. Bringing CHIRPP to EPID@Work is still in the planning/meetings stages.
Continue the seed grant program to build research capacity and collaboration in OHS research.	The Management Committee will continue to review applications for scientific merit and the Advisory Board will be responsible for evaluating and selecting the two proposals that will be funded (reduced from 3 to ensure competitiveness).	There were two seed grants awarded during the fiscal year and the first three grants awarded in the prior year were completed.
Provide training for the stakeholder community in research and knowledge mobilization methods to enhance their ability to actively participate in OHS research.	The EPID@Work Advisory Board will provide suggestions for relevant topics and the Management Committee will identify appropriate people to lead the sessions.	We provided internal training through our professional development session in the tri-annual meetings. Community and stakeholder training sessions are being planned for 2024, through the KMI scientist, who is now established.
Driving Research-to-Action		
Continue to build our Knowledge Mobilization and Implementation Team and	Recruit a Communications Specialist; Update our website and logo; enhance community network development.	The KMI team is full and have successfully updated the website and logo. Community networking has been successful and continues

build the EPID@Work brand and network.		to grow. See 'Knowledge Transfer and Exchange' section for more information.
Enhance project status monitoring and networks.	Develop project tracking sheet; update contacts/network list and create distribution lists.	The KMI team has updated the institute's contacts and network lists and continues to monitor as new connections are made. Project tracking sheets have been created and are changing as the researchers and KMI team require.
Enhance EPID Talks and develop measurement indices.	KMI to take over scheduling of EPID Talks and develop standard procedures, key performance indicators and metrics.	The EPID Talks series has been established and successful. See 'Knowledge Transfer and Exchange' section for more information.
Plan for EPID Conference – tentatively scheduled for October 2023.	Organize a small, local conference to help establish brand, network, and community engagement.	The first EPID Conference was held in October 2023. See 'Knowledge Transfer and Exchange' section for more information.
Building Evaluation Capacity within the OHS system		
Build our evaluation capacity.	Recruit KMI Scientist to develop a plan for evaluating EPID@Work outreach activities.	The KMI Scientist is developing the plans for evaluating the Institute's activities.
Design and conduct research to better understand and improve evaluation and KMI within the OHS system.	Focus research questions on evaluating components of the OHS system and the conduct of KMI.	With the full KMI team established halfway through the year, evaluation projects are being designed and implemented.
Collaboration and Partnership		
Establish three community-based Expert Committees for each core research area.	Using our existing networks and community advertising, the EPID@Work Advisory Board will select the membership for the three Expert Committees using the Loisel Work Disability Arena to ensure we have the relevant stakeholders at each table.	Through discussions with the Advisory Board and Management Committee, EPID@Work has decided that instead of community-based Expert Committees, Steering Committees for projects will be developed. The NOWWHS project has established a committee.

Risk Assessment

Risk	Mitigation Strategy
Securing a Qualitative Postdoctoral Candidate	The qualitative postdoctoral position is a specific field, making recruitment a difficult process. The Institute has advertised on many different platforms nationally and reached out to contacts within the research community. There have been several interviews conducted, however the correct fit for the Institute has not yet been found, mainly due to relocation concerns from the candidates. Currently there are a few promising applications, with the hope of soon having the position filled. The vacancy has caused delays on certain aspects of projects, specifically the qualitative portion of the NOWWHS.
Staffing	Vacancies within the Institute continue to cause delays to the progress of projects, specifically the NOWWHS. We conducted multiple rounds of interviews, with offers submitted, for the project coordinator positions. However, due to our Northern location, being contract based and the competitive market, offers were declined, delaying the hiring process and the recruitment progress of the study. The current staff were able to help where possible and updating the job posting frequently, we were able to recruit a full-time employee by the end of the fiscal year.

Limited number of staff members in liaising departments has also led to delays in paperwork and approvals, causing times of waiting before being able to implement the next steps of projects. This is being mitigated by being as prepared as possible for all questions to stop further delays. |

Infrastructure / Corporate Services

Many of our corporate services are provided by Lakehead University, as an affiliated research institute. Facilities, human resources management, research ethics, space, finance, accounting, purchasing, and maintenance of equipment and supplies are managed by our administrative team in collaboration with the University and the various departments.

We are also working to develop ongoing data sources. One is the NOWWHS project, which will provide longitudinal data on workers and workplaces that will allow us to work with workplace partners to test and develop interventions. The second is bringing the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) data to EPID.

Bringing CHIRPP data to EPID@Work

Reasons for the project:
EPID@Work is partnering with the Public Health Agency of Canada (PHAC) to propose working with the Thunder Bay Regional Health Sciences Centre (TBRHSC) Emergency Department to bring the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) to Thunder Bay. We propose housing this data at the EPID@Work Research Institute as this data will allow us to collect population-based data on all emergency department visits (including for mental health), including both work- and non-work-related visits. This will be a powerful source of data as it will allow us to conduct case-control studies for primary prevention and cohort studies for secondary and tertiary prevention.

Objectives of the project:
- Provide a high-quality long-term data source
- Provide surveillance data to identify emerging hazards in NWO
- Attract high-quality trainees

Methods:
Incident injury data will be collected from the emergency department; this data source will provide the ideal opportunity for case-control study development.

Status: Ongoing

Research Team and roles:
Dr. Vicki Kristman (Principal Investigator)
Dr. David Savage (ED Physician at TBRHSC)

Collaborators and Partners:
PHAC, TBRHSC

Target Audience:
Will depend on specific studies developed using the data

Linkage to MLITSD's *Prevention Works* Strategy**:**
☒ Objective 1: Build and use the best evidence to target initiatives, measure performance and increase system oversight
☒ Objective 2: Improve OHS knowledge and practices
☐ Objective 3: Support workplace parties to fulfil their OHS roles and responsibilities and achieve excellence
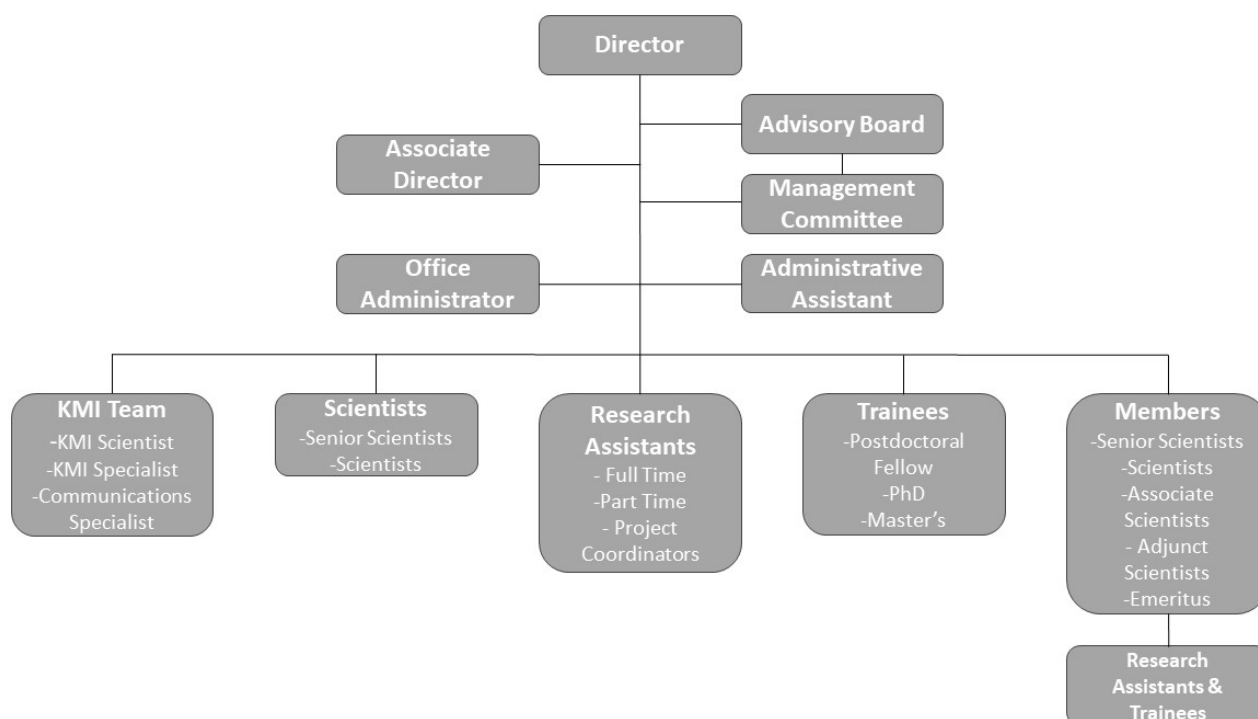☒ Objective 4: Make OHS easier for small businesses

Funders: PHAC, currently will be funded through extra CIHR funds held by Dr. Vicki Kristman; alternative sources of funding will be sought
Amount: $85,000

Research Institute Directory

Organizational Chart

Directory

DIRECTOR

Dr. Vicki Kristman	Department of Health Sciences	Senior Scientist

ASSOCIATE DIRECTOR

Dr. Kathy Sanderson	Department of Business Administration	Scientist

FULL MEMBERS

Dr. Abigale Sprakes	Department of Social Work	Associate Scientist
Dr. Amanda Maranzan	Department of Psychology	Scientist
Dr. Anna Koné Péfoyo	Department of Health Sciences	Scientist
Dr. Christopher Mushquash	Department of Psychology, Northern Ontario School of Medicine	Senior Scientist
Dr. Deborah Scarf	Department of Psychology	Scientist
Dr. Helle Møller	Department of Health Sciences	Scientist
Dr. Jo-Ann Vis	School of Social Work	Scientist
Dr. Kathryn Sinden	School of Kinesiology	Scientist
Dr. Kristen Jones-Bonofiglio	School of Nursing	Scientist
Dr. Lori Chambers	Department of Gender and Women's Studies	Senior Scientist
Dr. Lynn Martin	Department of Health Sciences	Senior Scientist

| Dr. Nisha Sutherland | School of Nursing | Scientist |
| Dr. Vijay Mago | Department of Computer Sciences | Scientist |

ADJUNCT MEMBERS

Dr. Afshin Vafaei	Department of Health Sciences	Associate Scientist
Dr. Arif Jetha	Institute for Work & Health	Scientist
Dr. Fergal O'Hagan	Trent University, Department of Psychology	Scientist
Dr. Joshua Armstrong	Department of Health Sciences	Associate Scientist
Dr. Manal Alzghoul	Brock University, School of Nursing	Scientist
Dr. Monique Gignac	Institute for Work & Health	Senior Scientist
Dr. Rebecca Schiff	University of Northern British Columbia, Department of Health Sciences	Scientist
Dr. Salimur Choudhury	Department of Computer Science	Scientist

EMERITUS MEMBER

| Dr. William Shaw | University of Connecticut Health Center | Scientist |

STAFF

Aynsley Klassen	Qualitative Research Assistant
Dr. Batholomew Chireh	Research Assistant Professor
Claudia Czechowski	Project Coordinator
Elke Cullis	Office Administrator
Foruzan Bahrami	Quantitative Research Assistant
Katie Friday	Communications Specialist
Kelsey Raynard	KMI Specialist
Mannila Sandhu	Quantitative Research Assistant
Margaret Cernigoj	KMI Lead (April – June 2023)
Dr. Marilee Nugent	KMI Scientist
Nolan Maenpaa	Project Coordinator
Reid Kennel	Administrative Assistant
Dr. Samuel Essien	Assistant Professor of Health Sciences
Vanessa Nichols	Project Coordinator

RESEARCH ASSISTANTS

Chantee Steinberg	Logan Marks
Chris Armiento	Maryam Einshouka
Dana Korten	Patrick Sabourin
Danait Hailemariam	Phinehas Omondi
Daniel Worby	Robin Faye
Huiqi Ye	Shanuga Rajkumar
Kayla Kubinec	Shaun Dookie
Kristin McConnell	Shuana Fossum
Kyle Swerhun	Sydney Ambury
Lisa Govier	Thanusan Sooriyakumar

TRAINEES

Honours Thesis Students	Master's Candidates	PhD Candidates
Julie McGowan, HBComm	Aastha Malhotra, MSc	Ainsley Miller, PhD
Michelle Pocion, HBComm	Caroline Sabotig, MA	Chelsea Noël, PhD
Shayla Stankovic, BA	Chris Brescacin, MSc	Danielle Provost, PhD
	Emily Tella, MSc	Fernanda Miranda, PhD
	Georgia Champagne, MSc	Kara Polson, PhD
	Hannah Storrs, MA	Mila Popovic, PhD
	Helen Otterman, MHSc	Omar Fares, PhD
	Jazanne Bunting, MHSc	Umme Saika Kabir, PhD
	Jillian Zitars, MA	
	Joanne Kao, MA	
	Kaija Maenpaa, MSc	
	Lauren Reynolds, MHSc	
	Tahsin Anika, MHSc	

MANAGEMENT COMMITTEE

Dr. Vicki Kristman	Director
Dr. Kathy Sanderson	Equity, Diversity, and Inclusion Lead
Dr. Lynn Martin	Knowledge Mobilization and Implementation Lead
Dr. Deborah Scharf	Mental Health Lead

ADVISORY BOARD

Amy Kembel	Synergy North
Dr. Batia Stolar	Associate Vice-President, Research and Graduate Studies; Chair
Dr. Joel Andersen	Occupational Physician
Jules Tupker	Previous CUPE Union, Retired
Margaret Cernigoj	Ministry of Labour, Immigration, Training and Skills Development (July 2023 – March 2024)
Matthew Mayer	Workplace Safety and Insurance Board
Dr. Pierre Côté	Canadian Research Chair in Disability Prevention and Rehabilitation; Professor and Chiropractor; University of Ontario Institute of Technology
Steve Mantis	Ontario Network of Injured Workers, Thunder Bay and District Injured Workers Support Group

Publications

Peer Reviewed

Bowbly ES, Jyrkinen M, **Sanderson K**, & Malinga M. Vulnerabilities in paid care work. Transnational experiences, insights and voices. Policy Press Short Research. Book in press. Forthcoming July 2024.

Chireh B, Essien SK, Novik N, and Ankrah M. Long working hours, perceived work stress, and common mental health conditions among full-time Canadian working population: a national comparative study. Journal of Affective Disorders Reports, 2023; 12:100290. DOI: https://doi.org/10.1016/j.jadr.2023.100508

Chireh B, Essien SK, Afful A, & D'Arcy C. Under review: Mental health of working seniors in Canada: prevalence and determinants of depression and anxiety disorders. Journal of Affective Disorders, 2024.

Makuto N, **Kristman V**, Bigelow P, & Bédard M. Factors associated with depressive symptoms in long-haul truck drivers. Transportation Research Interdisciplinary Perspectives, 2023;21:100851. Open access: https://doi.org/10.1016/j.trip.2023.100851

Miranda F, Vasconcelos dos Santos B, **Kristman V**, & Mininel V. Kirkpatrick's framework to evaluate nurse training: an integrative review. Revista Latino-Americana de Enfermagem. Submitted Dec 20, 2023.

Sanderson K & Hron R. Understanding the long-term retention of personal support workers in Canadian home and long-term care in vulnerabilities in paid care work. Transnational experiences, insights and voices. Policy Press Short Research. Chapter in press. Forthcoming July 2024.

Sanderson K, Bawn C, Boonzaier F, & Lehtonen J. Reconceptualizing precarity and agency: New ways forward in Vulnerabilities in paid care work. Transnational experiences, insights and voices. Policy Press Short Research. Chapter in press. Forthcoming July 2024.

Sanderson K, Butt I, Banerjee R, & Hron R. Under Review: 'Workplace inclusion theory development: A review and synthesis of immigrant voice'. Submitted to Human Resources Management Review – under 3rd review.

Shahidi FV, **Jetha A**, **Kristman V**, Smith PM, **Gignac MAM**. The employment quality of persons with disabilities: Findings from a National Survey. Journal of Occupational Rehabilitation, Apr 2023;33:785-95. Open access: https://doi.org/10.1007/s10926-023-10113-7.

Shams F, & **Sanderson K**. Discipline, caregiving, and identity work of frontline professionals: Talking about the acts of compliance and resistance in the everyday practices of social workers. Journal of Professions and Organization, 2024; joae004.

Other – Non-Peer Reviewed

Bahrami F, Kristman VL. Evaluation of the WSN safe driving on forest roads training program. Final Report. December 2023.

Korten D, **Kristman VL.** Understanding COVID-19-related impacts on the health and well-being of educators in the Yukon. Final Report. May 2023.

Maranzan A. "Injured worker stigma", Chronicle-Journal "Research In Action" feature (also posted to "Research In Action" LU website).

Raynard K, Friday K. Webpage: EPID@Work. https://www.lakeheadu.ca/centre/epid

Raynard K, Friday K. Webpage: NOWWHS Cohort Study. https://www.workinghealth.ca/

Sanderson K. Webpage: RenewNWO. https://www.renewnwo.ca/.

Sanderson K. Webpage: Route to Recovery. https://www.r2rhomecare.ca/.

Saulnier A, Zuzunaga Zegarra D, Sytsma V, Krupp D, & Kristman V. Civil emergence guidance: Changes to police service operations. A report prepared for the Ontario Association of Chiefs of Police. Ontario, Canada. 2023.

Grants

Grants Awarded

EPID@Work – Seed Fund
- How is Stigma Described and Discussed in the Injured Worker Literature? A Scoping Review
- Dr. Amanada Maranzan (Principal Investigator)
- $20,000
- March 2023 – March 2024

EPID@Work – Seed Fund
- Moral Distress During the Pandemic: Impacts on the Mental Health of Long-term Care Home Staff
- Dr. Nisha Sutherland (Co-Investigator)
- $19,960
- March 2023 – March 2024

EPID@Work – Seed Fund
- Addiction Disability: Workplace Attitudes and Practices in Northwestern Ontario
- Dr. Abigale Sprakes (Co-Investigator)
- $20,000
- March 2023 – March 2024

EPID@Work – Seed Fund
- Using Knowledge Translation Theory to Inform Partnership Development and Identify Mental Health Burden in a Northern Ontario Career Fire Service
- Dr. Kathryn Sinden (Principal Investigator)
- $19,970
- October 2023 – October 2024

EPID@Work – Seed Fund
- Mental Health Well-being and Mental Health Help-seeking Among Farmers and Farm Families in Northwestern Ontario
- Dr. Samuel Essien (Principal Investigator)
- $20,000
- December 2023 – December 2024

EPID@Work
- Technology-based Behavioural Health Supports: What are Employers offering and how are they Affecting Wellness and Work?
- Dr. Deborah Scharf (Principal Investigator)
- $59,475
- June 2022 – May 2023

Grants Received

SSHRC – Knowledge Synthesis Grant
- Virtual Work from Home & Mental Well-being: A Scoping Review
- Dr. Vicki Kristman (Principal Investigator)
- $29,923
- 2022 – 2023

New Frontiers in Research Fund
- Inclusive Design for Employment Access (IDEA)
- Dr. Vicki Kristman (Co-Investigator), Dr. Emile Tompa & Dr. Rebecca Gewurtz (Principal Investigators)
- $9,038,977
- 2021 – 2027

SSHRC – Partnership Development Grant
- COVID-19 and Policing in Ontario: Preparing for Future Pandemics
- Dr. Vicki Kristman (Co-Investigator), Dr. Alana Saulnier (Principal Investigator)
- $132,190
- 2021 – 2024

CIHR – Project Scheme
- Evaluating the Wiiji App to Improve Indigenous Workplace Mental Health: A Mixed Methods Approach
- Dr. Vicki Kristman (Principal Investigator)
- $367,200
- 2020 – 2025

Transatlantic Platform
- Enroute to Recovery: Diversity and Vulnerability in Care Work During and after the COVID-19 Pandemic
- Dr. Kathy Sanderson (Principal Investigator - Canada)
- $200,000
- 2022 – 2024

North2North
- Travel Grant
- Dr. Kathy Sanderson
- $4,000
- March – May 2024

SRC CIHR – Research Development Fund
- Resilience Factors in Work-related Amputation and Work Reintegration
- Dr. Samuel Essien (Principal Investigator)
- $7,000
- 2023 – 2024

CIHR – Café Scientifique Program
- Mental Health of Working Seniors: Prevalence, Determinants and Lived Experiences
- Dr. Batholomew Chireh (Principal Investigator)
- $6,000
- 2023 – 2024

Senate Research Committee
- Workplace Stressors and Mental Well-being Among Personal Support Workers: A Systematic Review
- Dr. Batholomew Chireh (Principal Investigator)
- $7,000
- 2024 - 2025

Workplace Safety North
- Evaluation of the WSN Safe Driving on Forest Roads Training Program
- Dr. Vicki Kristman (Principal Investigator)
- $30,912
- 2021 – 2023

SSHRC – Partnership Development Grant
- Understanding Labour Force Participation, Work Productivity and Disability in the Indigenous Context: A Partnership with the Nokiiwin Tribal Council
- Dr. Vicki Kristman (Principal Investigator)
- $200,000
- 2017 – 2023

Presentations

Kristman VL. Indigenous Workplace Mental Health. Panel member: Mental Health Resiliency of the Indigenous Workforce in the Mining Environment. Prospectors and Developers Association of Canada (PDAC), Metro Toronto Convention Centre, Toronto, March 2024.

Kristman VL. The Northwestern Ontario Workplace & Worker Health Study. Institute for Work & Health Speaker's Series. Toronto, March 2024.

Kristman VL. Epidemiologic Cohort Studies. Graduate Program in Nursing. Federal University of São Carlos. São Carlos, Brazil, March 2024.

Einshouka M, Scharf D, & Kristman V. The effect of motivational interviewing training on undergraduate nurses' self-efficacy, knowledge, attitudes, and subjective norms: a comparison of two learning styles. 2024 Showcase of Health Research, Italian Cultural Centre, Thunder Bay, February 2024. (Poster presentation)

Einshouka M, Sandhu M, & Kristman V. Workplace job stress interventions: a scoping review. 2024 Showcase of Health Research, Italian Cultural Centre, Thunder Bay, February 2024. (Poster presentation)

Kao CEJ, Zitars J, & **Scharf D**. Using the VOSviewer to Facilitate Literature Review: An Example Looking at Technology-Based Behavioural Supports Used in Workplaces. Research and Innovation Week, Lakehead University, February 2024. (Poster presentation)

Kristman VL. What can Employers do to Keep Employees Healthy? Build a Hockey Team: Eight Important Workplace Factors Impacting Employee Health and Disability. Distinguished Researcher Talk. Lakehead University, February 2024.

Kristman V. The Northwestern Ontario Workplace and Worker Health Study. 2024 Showcase of Health Research, Italian Cultural Centre, Thunder Bay, February 2024. (Podium presentation)

Messih NMA, **Sandhu M**, Gilbeau A, & **Kristman V**. Wiiji PeerConnect: Evaluating an Indigenous workplace mental health app. 2024 Showcase of Health Research, Italian Cultural Centre, Thunder Bay, February 2024. (Poster presentation)

Sanderson K. Welcoming Differences - Diversity Driven Onboarding. EPID Talks. Thunder Bay, (44 attendees), February 2024.

Zitars J & Scharf D. Mobile Crisis Response Teams in a Northern Context: Learning from IMPACT. Showcase of Health Research, St. Joseph's Care Group, Thunder Bay, February 2024. (Poster presentation)

Kristman VL. The Northwestern Ontario Workplace & Worker Health Study. Forum North, Thunder Bay, November 2023.

Kristman VL. EPID@Work and the Northwestern Ontario Workplace & Worker Health Study. University of Toronto Occupational Medicine Rounds. Virtual, hosted in Toronto, November 2023.

Sanderson K. Workplace Research Northwest. Research Day, Lakehead University, (~10 attendees), November 2023.

Sanderson K. Engaging Newcomer Women. Superior Mental Wellness at Work Committee, Thunder Bay, (~15 attendees), November 2023.

Saulnier A, **Sandhu M**, Krupp D, & **Kristman V**. Effects of the COVID-19 pandemic on police calls for service. American Society of Criminology. Philadelphia, USA, November 2023.

Noël C, Hawkins J, Lund J, Kozik J, **Koné A, & Scharf D.** Injured and ill workers in Thunder Bay and District study: Identifying mental health needs in the WSIB process. EPID@Work Research into Action Conference, Thunder Bay, October 2023.

Nugent M. Knowledge Mobilization and Implementation Practice. EPID@Work Research into Action Conference, Thunder Bay, October 2023.

Popovic M, Nöel C, Reynolds L, & Maranzan KA. How is stigma described and discussed in the injured worker literature? A review of methodology. EPID@Work's Research in Motion Conference, Thunder Bay, October 2023. (Panel presentation)

Sanderson K. Newcomers and Work Northwestern Ontario Discoveries. EPID@Work Research into Action Conference, Thunder Bay, (~20 attendees), October 2023.

Sanderson K. EPID@Work Research into Action Conference, Thunder Bay, October 2023. (Panel moderation)

Sanderson K. Health & Safety Video launch. EPID@Work Research into Action Conference, Thunder Bay, October 2023.

Scharf D, **Noël C, Popovic M, & Kao J.** Current Research on Occupational Mental Health. EPID@Work Research into Action Conference, Thunder Bay, October 2023. (Symposium)

Kristman VL, Sandhu M, & Gilbeau A. Wiiji peer support app and Indigenous workplace mental health. PREMUS & WDPI, Bengaluru, India, September 2023. (Virtual oral presentation)

Miranda FM, Kristman V, & Mininel VA. Developing a training program for promoting mental health at work for Brazilian nurses. PREMUS & WDPI, Bengaluru, India, September 2023. (Poster presentation)

Vasconcelos dos Santos B, **Miranda FM**, **Kristman V**, & Mininel VA. Mental health promotion strategies at work in hospital nursing: an integrative literature review. PREMUS & WDPI, Bengaluru, India, September 2023. (Poster presentation)

Chireh B, Armstrong J, **Kristman V**. Determinants of mental disorders among working seniors: insights from the Canadian Community Health Survey. 2023 CSEB Conference, Halifax, Nova Scotia, June 2023. (Podium presentation)

Fraser L, **Kristman VL**. Superior Mental Wellness@Work – Working Together to Promote Workplace Mental Health. C2U (Community-College-University) Expo 2023, Lakehead University, Thunder Bay, June 2023. (Podium presentation)

Hron R, Sanderson K, & Whitney J. Comparing Newcomer & Employer Perspectives in Northwestern Ontario. Administrative Sciences Association of Canada, Conference, Toronto, (~20 attendees), June 2023.

Korten D, Kristman VL. The impacts of the COVID-19 Pandemic on the Health and Well-being of educators in the Yukon. Presentation to the Yukon Government at the COVID-19 Recovery Research Summit. Whitehorse, Yukon, June 2023.

Kristman VL, **Sandhu M**, Herring G, & Gilbeau A. Nokiiwin Tribal Council Community Survey – Understanding healthy workplace factors in the Indigenous context. 2023 CSEB Conference, Halifax, Nova Scotia, June 2023. (Podium presentation)

Kristman VL, **Sandhu M**, Gilbeau A. Wiiji peer support app and Indigenous workplace mental health. 2023 CSEB Conference, Halifax, Nova Scotia, June 2023. (Poster presentation)

Sanderson K. Onboarding Immigrant Women. C2U Conference, Thunder Bay, June 2023. (Poster presentation)

Sanderson K. Organizational Socialization and Newcomer Women. C2U Conference, Thunder Bay, (~30 attendees), June 2023.

Sanderson K. Employment Expectations, Barriers and Skills Gaps: Comparing Newcomer and Employer Perspectives. C2U Conference, Thunder Bay, (~30 attendees), June 2023.

Sandhu M, Kristman VL. Workplace factors associated with workers compensation outcomes: an ecological study. 2023 CSEB Conference, Halifax, Nova Scotia, June 2023. (Poster presentation)

Whitney J, Sanderson K, Hron R. Inform, Welcome, Guide: Onboarding immigrant women in remote and rural communities. Administrative Sciences Association of Canada, Conference, Toronto, (~ 30 attendees), June 2023.

Sanderson K. Renew NWO: Barriers and Ways Forward for Employed Newcomer Women. EPID Talks. Thunder Bay, (37 attendees), April 2023.

Awards

Aynsley Klassen
- Dean Braun Scholar Award, Lakehead University, 2023

Fernanda Maria de Miranda
- Best Young Researcher Award WDPI, WDPI Premus, India, 2023
- Motion of Praise and Recognition, Matão/SP City Council, SP, Brazil, 2023
- Scholarship, CAPES Foundation, 2022-2023, $23,370

Mannila Sandhu
- Research Support Award, Lakehead University, 2024, $250

Dr. Deborah Scharf
- North2North, Visiting Faculty Scholarship, Norway, 2023, $17,000NOK
- Publication Award, Lakehead University, 2024, $2,000
- Innovation Award, Lakehead University, 2024, $250
- Nomination, Contribution to Teaching Award, Lakehead University, 2023

Jillian Zitars (Trainee)
- Best Learner Poster, St. Joseph's Care Group Showcase of Health Research, 2024

Joanne Kao (Trainee Co-Author), Jillian Zitars (Trainee Co-Author)
- Best Poster, Research & Innovation Week, Lakehead University, 2024

Dr. Vicki Kristman
- Merit Award (Research), Lakehead University, 2023, $2,000
- Ontario Research Chair in Injury & Disability Prevention, Lakehead University, 2022-2026, $480,000

Julia Whitney, Dr. Kathy Sanderson, Ryan Hron
- Best Paper, EDI Division, Administrative Sciences Association of Canada, 2023

Student Supervision

Dr. Vicki Kristman
- Anika Tahsin, MHSc, 2022 – Present
  - Factors Associated with Job Satisfaction
- Kara Polson, PhD, 2021 – Present
  - Working in Isolation and Mental Health
- Umme Saika Kabir, PhD, 2021 – Present
  - Mental Health of Immigrant Workers
- Ainsley Miller, PhD, 2020 – Present
  - Mental Health of Nurses
- Helen Otterman, MHSc, 2018 – 2023
  - The Relationship between Sex, Gender, and Workplace Accommodations Among Workers with Mental Health Disorders
- Jazanne Bunting, MHSc, 2023 – Present
  - Thesis: TBD
- Fernanda Maria de Miranda, PhD, 2022 – 2024
  - Training Brazilian Nurses to Promote Mental Health at Work

Dr. Kathy Sanderson
- Georgia Champagne, MSc, 2023 – Present
  - Integration and Belonging: Increase Sense of Belonging in Newcomer Women Entering the Professional Workforce
- Kaija Maenpaa, MSc, 2023 – Present
  - Recruiting Employees in Northwestern Ontario Communities

Dr. Amanada Maranzan
- Lauren Reynolds, MHSc, 2022 – Present
  - Development and Initial Validation of the Injured Worker Stigma Scale

Dr. Kathryn Sinden
- Christopher Brescacin, MSc, 2022 – Present
  - Using Knowledge Translation Theory to Inform Partnership Development and Identify Mental Health Burden in a Northern Ontario Career Fire Service
- Emily Tella, MSc, 2020 – 2023
  - Identifying the Mental Health Burden of Indigenous and Non-Indigenous Ontario Provincial Police and Treaty Three Police Service Officers Working in Urban and Rural Northwestern Ontario Communities

THANK **YOU**

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