



Symposium on Aging Research

**MAY 2, 2023**  
**HEALTH EXPANSION BUILDING**



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## **Recognition of Traditional Land**

*We respectfully acknowledge that the University of Waterloo is situated on the traditional land of the Attawondaron, Anishnaabeg, and Haudenosaunee peoples. The University is situated on the Haldimand Tract, land promised to Six Nations, which includes six miles on both sides of the Grand River*

# **Welcome to the Symposium on Aging Research at the University of Waterloo!**

With a focus on aging research, SoAR is a one-day meeting for engaging with student research beyond disciplinary and professional boundaries, and across areas of expertise. SoAR encourages students from any discipline to present, dialogue, and learn about current research on aging.

The interdisciplinary nature of SoAR is an opportunity for students to network across disciplines and professions, initiate trans-departmental collaborations, and engage in integrative conversations on aging research. The objectives of this day are to provide a forum for students engaged in aging research to:

- Disseminate aging research to fellow students, faculty, research partners, and community members.
- Establish opportunities for interprofessional collaboration.
- Promote and showcase aging research at the University of Waterloo.

## Schedule at a Glance

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<b>Time</b>	<b>Event</b>	<b>Location</b>
8:00-8:45	Registration Breakfast	EXP Foyer
8:45-9:00	Opening Remarks	EXP 1689 (Auditorium)
9:00-10:00	Podium Presentations	EXP 1689 (Auditorium)
10:00-10:15	Break	
10:15-11:00	Rapid-Fire Presentations	EXP 1689 (Auditorium)
11:00-12:15	Podium Presentations	EXP 1689 (Auditorium)
12:15-1:00	Lunch	
1:00-1:30	Poster Presentations	EXP Foyer
1:30-2:15	Rapid-Fire Presentations	EXP 1689 (Auditorium)
2:15-3:15	Podium Presentations	EXP 1689 (Auditorium)
3:15-3:30	Break	
3:30-4:30	Keynote Presentation - Laura Tamblyn Watts	EXP 1689 (Auditorium)
4:30-5:00	Closing Remarks and Awards	EXP 1689 (Auditorium)

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**Keynote Speaker: Laura Tamblyn Watts**  
3:30-4:30 PM | EXP 1689 (Auditorium)



Laura Tamblyn Watts is an advocate and leader in the field of older adult' advocacy in Canada, and currently teaches at the Factor Inwentash Faculty of Social Work at the University of Toronto. She founded CanAge, a national seniors' advocacy organization, and has more than 20 years of experience defending the rights and dignity of older people as a lawyer. She is an expert in long-term care and residents' rights, and is actively involved in older adult's legal, financial, and regulatory reform initiatives in Canada, the US, Australia, and the South Pacific. Laura is a member of various federal government advisory boards and working groups guiding public policy standards and legislation. She is also an authority on financial matters affecting older adults and serves on various committees, including the North American Securities Administrators Association Committee on Vulnerable Investors.

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## **Welcome & Opening Remarks**

8:45-9:00 AM | EXP 1689 (Auditorium)

## **Podium Presentations**

9:00-10:00 AM | EXP 1689 (Auditorium)

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O1. Breaking barriers: Exercise professionals' perspective of remote physical activity supports for older adults during and beyond the pandemic

*Samira Mehrabi, Sara Drisdelle, Hanna R. Dutt, & Laura E. Middleton - University of Waterloo, Kinesiology and Health Sciences*

O2. Enhancing Minds in Motion as a virtual program delivery model for people living with dementia and their Care Partners

*Bobby Neudorf, Christopher Dinh, Vanessa Barnes, Christina Stergiou-Dayment, & Laura E. Middleton - University of Waterloo, Kinesiology and Health Sciences*

O3. Experiences of non-profit staff providing care for older adults during the COVID-19 pandemic: Key takeaways from Uganda and Ethiopia

*Satveer Dhillon - Western University, Department of Geography and Environment*

O4. Feasibility of the Virtual DELIGHT Program for People with Dementia and Care Partners

*Olivia Tupling, Laura Middleton, Heather Keller, Carrie McAiney, Sevana Haghverdia, Kayla Regan, William Heibein, Gail Roth, Lloyd Schneider, & Margaret Shoemaker - University of Waterloo, Kinesiology and Health Sciences*

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## **Break**

10:00 –10:15 AM | EXP Foyer

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**Rapid Fire Presentations**  
10:15-11:00 AM | EXP 1689 (Auditorium)

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O5. Medication review in cognitive impairment and dementia:  
Comparison of instruments

*Rishabh Sharma, Sarah Abu Fadaleh, Neil Mahajan, Hawa Patel, Jessica Ivo, Sadaf Faisal, Feng Chang, Linda Lee, & Tejal Patel - University of Waterloo, School of Pharmacy*

O6. Advancing approaches for virtual care in older adults:  
Evaluating the compliance and acceptance of a fully remote protocol using wearable sensors.

*Tehniyat Shahbaz & Vanessa Thai - University of Waterloo, School of Public Health Sciences*

O7. Perceptions of aging in place for people living with dementia and care partners in the Sri Lankan Tamil community

*Syntheya Leslie & Carrie McAiney - University of Waterloo, School of Public Health Sciences*

O8. User Experience with Medication Adherence Technology:  
Determining Usability by Capabilities

*Bincy Baby, Annette McKinnon, Kirk Patterson, Hawa Patel, Rishabh Sharma, Caitlin Carter, Ryan H. Griffin, Catherine Burns, Feng Chang, Sara Guilcher, Linda Lee, Sarah Fadaleh, & Tejal Patel - University of Waterloo, School of Pharmacy*

O9. Comparison of the Sedentary Behaviour Guidelines for Older Adults: A Review of the Literature and Quality Appraisal with AGREE II

*Amy Huang, Ellen Wang, Stephanie Sanger, & Isabel B. Rodrigues - McMaster University, Michael G. DeGroot School of Medicine Waterloo Regional Campus*

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## **Podium Presentations**

11:00 AM –12:15 PM | EXP 1689  
(Auditorium)

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O10. Dementia Dastan: Exploring the experiences of people living with dementia and their care partners in the Canadian South Asian community

*Navjot Gill & George Heckman - University of Waterloo, School of Public Health Sciences*

O11. Using data to characterize and describe missing incidents involving persons living with dementia

*Hector Perez, Antonio Miguel-Cruz, Christine Daum, & Lili Liu - University of Waterloo, School of Public Health Sciences*

O12. Population aging and Canada's social contract: COVID-19 catalyst for change

*Douglas Andrews & Lori J. Curtis - University of Waterloo, School of Public Health Sciences and Statistics and Actuarial Science*

O13. Why so serious?: The impact of serious games on pharmacy students' understanding and empathy toward the experiences of older adults living with dementia

*Yasaman Eskandari & Feng Chang - University of Waterloo, School of Pharmacy*

O14. Diabetes as a risk factor of cognitive impairment in middle-aged and older adults: A cross-sectional analysis of the Canadian Longitudinal Study on Aging (CLSA)

*Mohammad Nazmus Sakib & Peter Hall - University of Waterloo, School of Public Health Sciences*

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## **Lunch and Networking**

12:15 – 1:00 PM | EXP Foyer

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**Poster Presentations**  
1:00 – 1:30 PM | EXP Foyer

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P1. The association between religious participation, depression and memory in middle-aged and older adults: A moderated mediation analysis of the Canadian Longitudinal Study of Aging

*Bonita Nath, Mark Oremus, Yeying Zhu, Colleen Maxwell, & Charity Oga-Omenka - University of Waterloo, School of Public Health Sciences*

P2. The impact of medication reviews on clinical outcomes in persons with dementia: A scoping review

*Rishabh Sharma, Feng Chang, Linda Lee, Sadaf Faisal, Sarah Abu Fadaleh, Jessica Ivo, Bincy Baby, & Tejal Patel - University of Waterloo, School of Pharmacy*

P3. Rationale for Use of Adapted or Modified Methods with People with Dementia in Research: A Scoping Review

*Emma Conway, Ellen MacEachen, Laura Middleton, & Carrie McAiney - University of Waterloo, School of Public Health Sciences*

P4. Tools to measure barriers to medication management capacity in older adults: A scoping review

*Bincy Baby, Annette McKinnon, Kirk Patterson, Hawa Patel, Rishabh Sharma, Caitlin Carter, Ryan H. Griffin, Catherine Burns, Feng Chang, Sara Guilcher, Linda Lee, Sarah Fadaleh, & Tejal Patel - University of Waterloo, School of Pharmacy*

P5. 'Uberized' personal support services for older individuals: An Institutional Ethnography

*Pamela Hopwood & Ellen MacEachen - University of Waterloo, School of Public Health Sciences*

P6. How to run a volunteer-driven technology literacy program for your older adult residents: a framework and guide

*Karen Li, Nathan Nagallo, Erica McDonald, Colin Whaley, Kelly Grindrod, & Karla Boluk - University of Waterloo, Department of Biology*

P7. The influence of self-serving and altruistic rewards on response bias in recognition memory among younger and older adults

*Shadini Dematagoda & Julia Spaniol - Toronto Metropolitan University, Department of Psychology*

P8. Do educational level and academic performance predict cognitive reserve? Exploring interactions between educational and genetic factors.

*Michelle Vuong & Suzanne L. Tyas - University of Waterloo, School of Public Health Sciences*

P9. Health Implications of Social Isolation and Loneliness among Older Adults During the COVID-19 Pandemic

*Kaveenaa Chandrasekaran, Sepali Guruge, Cristina Catallo, & Kateryna Metersky - Toronto Metropolitan University*

P10. Is social support associated with executive function in community-dwelling adults over time? Findings from the baseline and first follow-up wave of the Canadian Longitudinal Study on Aging

*Emily Rutter, Mark Oremus, Colleen J. Maxwell, Megan E. O'Connell, & Suzanne L. Tyas - University of Waterloo, School of Public Health Sciences*

P11. CARE IN THE HOME AND HOME CARE: How do South Asian communities perceive caring for older adults in the home and home care services

*Krithika Subbiah & Elena Neiterman - University of Waterloo, School of Public Health Sciences*

P12. Do depressive symptoms mediate the association between perceived social support and executive function? A moderated mediation analysis in the CLSA

*Laura Lupoi, Mark Oremus, Colleen J. Maxwell, & Suzanne L. Tyas - University of Waterloo, School of Public Health Sciences*

P13. A Multi-sensor Approach to Quantifying Aid Use in Older Adults Living in a Retirement Setting

*Benjamin Cornish, Sherri Thomson, Anthony Pun, Karen van Ooteghem, & William E McIlroy - University of Waterloo, Department of Kinesiology and Health Sciences*

P14. The financial burden of an ALC designation in acute care encountered by healthcare and society

*Rebecca Rios, Brent E. Faught, Luke Turcotte, Anteneh Ayanso, Orlando, E. & Asif Khowaja - Brock University, Department of Applied Health Sciences*

P15. Real-time sit-to-stand phase classification with a mobile assistive robot from close proximity utilizing 3D visual skeleton recognition

*Anas Mahdi, Zonghao Dong, Jonathan Feng-Shun Lin, Yasuhisa Hirata, & Katja Mombaur - University of Waterloo, System Design Engineering*

P16. Confirming and expanding SCREEN for a frail population

*Meagan Jackson & Heather Keller - University of Waterloo, School of Public Health Sciences*

P17. Drug-related problems in persons with cognitive impairment and dementia in primary-care based memory clinics: Effectiveness of medication reviews.

*Hawa Patel, Yusra Aslam, Rishabh Sharma, Sadaf Faisal, Feng Chang, Cheryl Sadowski, Linda Lee, Manonita Roy, Carrie McAiney, & Tejal Patel – University of Waterloo, School of Pharmacy*

P18. Using exercise to measure fall-related psychological concerns in dementia: Can technology play a role?

*Erica Dove & Arlene Astell - University of Toronto, Rehabilitation Sciences Institute*

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### **Rapid Fire Presentations**

1:30-2:15 PM | EXP 1689 (Auditorium)

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O15. Peer leadership is not enough. The importance of empowerment and community in older adult health management

*Mary Hynes, Arlene Astell, Nicole Anderson, & Monika Kastner - University of Toronto, Institute of Medical Science*

O16. Implications of Bed Rest on Satiety and Hunger in Older Adults

*Aiman Fatima & Heather Keller - University of Waterloo, Kinesiology and Health Sciences*

O17. Dementia resources for eating, activity, and meaningful inclusion (DREAM): Full Evaluation

*Huda Nasir, Cindy Wei, Emma Rossnagel, Rachael Donnelly, Kayla Regan, Heather Keller, Kelly Skinner, Shannon Freeman, Chelsea Pelletier, Isabella Romano, Claire Buchan, Alle Butler, Amanda Doggett, Cameron Aird, Aderonke Agboji, Laura Middleton, & the DREAM Steering Team - University of Waterloo, Kinesiology and Health Sciences*

O18. Does anxiety lower executive function by reducing social support? A moderated mediation analysis in the Canadian longitudinal study on aging

*Cindy Wang & Suzanne L. Tyas - University of Waterloo, School of Public Health Sciences*

O19. Examining Variations of Anxiety in Persons Living with Dementia Across Ethnicities

*Hussain Ali Naqvi & Catherine Tong - University of Waterloo,  
School of Public Health Sciences*

O20. Recommendations on best practices for the delivery of virtual exercise programs: A case study of the virtual offering of Minds in Motion

*Christopher Dinh & Laura Middleton - University of Waterloo,  
Kinesiology and Health Sciences*

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## **Podium Presentations**

**2:15-3:15 PM | EXP 1689 (Auditorium)**

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O21. Evaluating the acceptability of the interRAI Check-Up self-report in Kampala district of central Uganda: A qualitative study

*Brittany Kroetsch - University of Waterloo, School of Public Health Sciences*

O22. Stakeholder's Values regarding Real-time Medication Adherence Monitoring: A Qualitative Study

*Sadaf Faisal, Tejal Patel, Jessica Ivo, & Sarah Abu Fadaleh - University of Waterloo, School of Pharmacy*

O23. Smart Medication Adherence Products Features: An Updated Literature Review

*Hawa Patel, Sadaf Faisal, Devine Samoth, Yusra Alam, Hawa Patel, SooMin Park, Bincy Baby, Caitlin Carter, Jessica Ivo, & Tejal Patel - University of Waterloo, School of Pharmacy*

O24. Connections Between Health, Well-being, and the Structures of Oppression

*Arany Sivasubramaniam & Lisbeth Berbarry - University of Waterloo, Recreation and Leisure Studies*

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**Break**

3:15-3:30 PM | EXP Foyer

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***RETURN YOUR NETWORKING BINGO CARD TO THE  
REGISTRATION DESK FOR A CHANCE TO WIN A PRIZE!***

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**Keynote – Laura Tamblyn Watts**

3:30-4:30 PM | EXP 1689 (Auditorium)

**Closing Remarks and Awards**

4:30-5:00 PM | EXP 1689 (Auditorium)

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*RIA Student Award: Most Innovative Research*

*NAR Student Research Competition: Best Poster Presentation*

*NAR Student Research Competition: Best Podium Presentation*

**Thank you to everyone who worked tirelessly to  
make SoAR possible!**

**SoAR Planning Committee:**

Tara Kuhn	Karen El Hajj
Mohammad Shushtari	Hajr Hameed
Amy Matharu	Lauren McLennan
Safura Syed	Hana Dakkak
Naweed Waghu	

**Our judges, moderators, and volunteers:**

Mohammad Sakib	Manasa Sivakumar
Hector Perez	Emily Rutter
Busola Adekoya	Navjot Gill
Chirayu Darji	Erica MacTavish
Hediyeh Safari	Kishoree Sangarapillai
Abhishesh Homagain	Dhaval Kakadiya
Rishabh Sharma	Meagan Jackson
Bonita Nath	Pershia Norouzian
Anas Mahdi	April Pereira

***...and many others who helped us out behind the  
scenes!***

# SOAR

Symposium on Aging Research

**THANK YOU TO OUR GENEROUS SPONSORS AND SUPPORTERS**



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PHD Aging, Health and Well-Being



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## **Full abstracts**

*In alphabetical order by first name*

**Name:** Amy Huang, Ellen Wang, Stephanie Sanger, & Isabel B. Rodrigues

**Presentation Type:** Verbal (rapid fire)

**Presentation Title:** Comparison of the Sedentary Behaviour Guidelines for Older Adults: A Review of the Literature and Quality Appraisal with AGREE II

**Abstract:** Background: Most older adults ( $\geq 65$  years) accumulate  $>8.5$  hours/day of continuous sedentary time, which is associated with increased risk of metabolic syndromes and falls. The impact of increased sedentary time in older adults globally has prompted the development of national and international sedentary behaviour guidelines. Clinical practice guidelines can facilitate clinicians to utilize evidence-based interventions and practice resource stewardship. Objective: The purpose of our thematic literature review was to identify and compare national and international sedentary behaviour guidelines for older adults and appraise the quality of the guidelines to promote best practice in guideline development. Methods: We conducted our search in Medline, Embase, Global Health and relevant grey literature. We included the most updated guidelines for older adults written in English. The Appraisal of Guidelines for Research & Evaluation Instrument (AGREE II), a previously validated and reliable tool, was used to assess the methodological quality of the recommendations. With AGREE II, each clinical practice guideline was scored on six domains. Results: We identified eight national and international sedentary behaviour guidelines for older adults. The guidelines were developed from reviews, cohort studies, knowledge user's opinions, or other guidelines; all guidelines were based on low quality and certainty of evidence. The guidelines published by WHO, USA, and Canada met AGREE II criteria for high quality, scoring at least 60% in at least 5 domains. The terms "sedentary behaviour" and "sedentary time" were used interchangeably, and the definitions of both terms were not

consistent between guidelines. Six guidelines recommended a reduction in total time with one suggesting limiting sedentary time to <8 hours/day. Three guidelines suggested reallocating sedentary time to light activity, with one recommending to stand-and-stretch every hour for 5-minutes. Conclusion: Most sedentary behaviour guidelines for older adults are based on low quality and low certainty evidence, due to a lack of randomized control trials and systematic review in the field. Terminology, definitions, and recommendations were not consistent between guidelines. Further research in defining sedentary behaviour or time and interventions is needed to develop evidenced-based recommendations specific to older adults.

**Name:** Anas Mahdi, Zonghao Dong, Jonathan Feng-Shun Lin, Yasuhisa Hirata, & Katja Mombaur

**Presentation Type:** Poster

**Presentation Title:** Real-time Sit-to-Stand Phase Classification with a Mobile Assistive Robot From Close Proximity Utilizing 3D Visual Skeleton Recognition

**Abstract:** The Sit-To-Stand (STS) movement is a fundamental activity that is crucial for maintaining independence in daily activities, especially for older adults. As STS ability declines, it can lead to functional limitations, and this can result in difficulty completing daily tasks independently. One potential solution is to use technology to monitor and track STS movements. In this paper, we propose a vision-based method for estimating the human pose during the STS movement using a depth camera integrated onto the SkyWalker robotic rollator. Our goal is to use this technology to prevent falls and provide optimal support for the user during STS movements. One of the key applications of our method is phase classification, which involves identifying the specific phase of STS that the user is in. We have identified four phases of STS that are crucial for preventing falls, and our classification algorithm uses the Mediapipe model (Machine learning model from google) to provide a full-body skeleton structure describing the user's posture. Our proposed system can be used to classify which phase of STS the user is currently in, allowing the robot to adjust its actions accordingly and provide optimal support, thus preventing falls. By tracking STS movements, we can help older adults maintain their independence and improve their quality of life. To assess the accuracy of our proposed software, we compared the 3D skeleton tracking results with those obtained from a motion capture system Vicon. The comparison analyzed both the kinematics accuracy and similarities for the trend of changes. In summary, our proposed vision-based method for estimating human pose during STS movements using a depth camera integrated onto the SkyWalker robotic rollator has the potential to improve the safety and independence of older adults. By accurately classifying the

different phases of STS, the robot can provide appropriate support and prevent falls. Section headings have been added to help with the flow, and we have provided a high-level explanation of our methods to make the abstract more accessible to readers who are not familiar with this area.

**Name:** Arany Sivasubramaniam & Lisbeth Berbary

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Connections Between Health, Well-being, and the Structures of Oppression

**Abstract:** In much aging and interdisciplinary scholarship, when health is conceptualized, it is often contextualized from white supremacist, racist, and capitalist frames. To reframe scholarship towards more useful possibilities, we first must confront the historical and on-going violences brought forth from our reliance on these notions of health that often come directly from colonization and enslavement and have failed to provide possibilities of health for racialized folks. If capitalism can be described as “labour on the backs of Others,” (Marx et al., 1998; Robinson, 1983), then health is founded on the blood of Others—particularly, those who were enslaved. This manuscript is a theoretical critique and does the work of infusing theory into a textual analysis of the medical industrial complex (MIC) (Jackson & Mazzei, 2022). In plugging in theory to the socio-historical legacies and their current manifestations of white supremacy, racism, and racial capitalism, we name some of the interconnected oppressions within health that we must dismantle in our everyday work as we engage with racialized communities. Scholarship within the field of aging must constantly provide alternatives to white supremacist models of healing because they are so normalized in mass institutional discourses and are often rendered unproblematic. Our scholarship within the field of aging, requires us to politicize the role of health and healing in our work as a crucial component of the better world that we are building.

**Name:** Benjamin Cornish, Sherri Thomson, Anthony Pun, Karen van Ooteghem, & William E McIlroy

**Presentation Type:** Poster

**Presentation Title:** A Multi-sensor Approach to Quantifying Aid Use in Older Adults Living in a Retirement Setting

**Abstract:** Background: Mobility aids can be used to gain independence and stability during walking (Balash et al., 2007). Accurately describing aid use can impact rehabilitation and fall risk assessment however, quantifying aid use relies on self-reporting and typically utilizes binary responses (yes/no). These methods are prone to recall bias and may not reflect actual aid use. Wearable-sensors used to measure walking may provide a means to accurately detect and describe aid use in daily life.

Objective: This study seeks to determine if wearable sensors can quantify aid use during walking in daily life.

Methods: Older adults (n=20) living in a retirement setting were recruited as part of a pilot feasibility study within ONDRI. Aid use reporting identified aid users and aid-mounted and body-fixed wearable sensors quantified aid use and walking over a seven-day period. Detected walking was categorized into walking durations (short, med-short, med-long, long). Aid use was described as the percent time an aid was used during different walking durations. To determine if use of aids differed for walking durations a one-way ANOVA compare percent time aid use between walking bout durations.

Results: Seventy-five percent (n=15) of participants reported using an aid (e.g., cane, walker, walking poles) and on average used an aid 62% of the total walking time. A main effect of bout length and aid use time exists ( $F(3)=17.83$ ,  $P<0.001$ ,  $\eta^2p=.61$ ).

Conclusions: Wearable sensor can improve the quantification of aid use compared to self reporting and reveal the nuances of aid use as it occurs in daily life.

References:

Balash Y, Hadar-Frumer M, Herman T, Peretz C, Giladi N, Hausdorff JM. The effects of reducing fear of falling on locomotion in older adults with a higher level gait disorder. *Journal of Neural*

Transmission. 2007;114(10):1309-1314. doi:10.1007/s00702-007-0771-z

**Name:** Bincy Baby, Annette McKinnon, Kirk Patterson, Hawa Patel, Rishabh Sharma, Caitlin Carter, Ryan H. Griffin, Catherine Burns, Feng Chang, Sara Guilcher, Linda Lee, Sarah Fadaleh, & Tejal Patel

**Presentation Type:** Verbal (rapid fire)

**Presentation Title:** User Experience with Medication Adherence Technology: Determining Usability by Capabilities

**Abstract:** Background

The increased prevalence of chronic diseases in older adults results in complex medication regimens, polypharmacy, and functional limitations. This further impairs their ability to manage medications independently, leading to non-adherence, medication errors, hospitalization, placement in assisted living and mortality. Medication adherence technologies can assist in improving medication self-management and independence. However, the variety of features and characteristics of these technologies impacts usability and may worsen adherence if not properly matched to an older adult's capabilities.

**Objective**

To identify the types of medication adherence products that are most appropriate for older adults who experience physical, cognitive, sensory, motivational, and environmental barriers to taking their medications.

**Methods**

A mixed method study will be conducted to examine the usability and user experience of three 'smart' and ten 'electronic' medication technologies. We will recruit older adults with diverse physical, cognitive, perception, motivational, and environmental barriers to test the user experience with different medication adherence devices. A medication management capacity tool will be used to identify the participants' limitations, which will then be coded based on the International Classification of Functioning, Disability and Health (ICF). The user experience will be examined using validated tools (Usefulness, Satisfaction and Ease of Use Questionnaire (USE), System Usability Scale (SUS), NASA Task Load Index (TLX), cognitive walkthroughs, think aloud, task



success, errors, and qualitative one-on-one interviews. Quantitative data will be analyzed with simple linear regression. For each of the dependent variables discussed above, various independent variables such as age, gender, educational level, number of medications, and patient limitations will be considered. Content data analysis will be used for qualitative data analysis.

**Name:** Bincy Baby, Annette McKinnon, Kirk Patterson, Hawa Patel, Rishabh Sharma, Caitlin Carter, Ryan H. Griffin, Catherine Burns, Feng Chang, Sara Guilcher, Linda Lee, Sarah Fadaleh, & Tejal Patel

**Presentation Type:** Poster

**Presentation Title:** Tools to Measure Barriers to Medication Management Capacity in Older Adults: A Scoping Review

**Abstract:** Background: The ability of older adults to self-manage medications is influenced by a diverse variety of factors. Therefore, it is important to identify appropriate tools that enable clinicians to assess which of these factors may be driving medication mismanagement and consequently, medication non-adherence.

Purpose: To identify tools that measure physical, cognitive, sensory (vision, hearing, touch), motivational, and environmental barriers to medication self-management in older adults.

Methods: We used Arksey and O'Malley's scoping review framework and the PRISMA Extension for Scoping reviews checklist to conduct the scoping review. We searched PubMed (MEDLINE), Ovid Embase, Ovid IPA, EBSCOhost CINAHL, APA PsycINFO, and Scopus in June 2022 to identify relevant literature. In consultation with a librarian, search strategies comprising keywords (medication, self-management, tools, functional limitation, and elderly) were used. Studies in the English language published during 2002-2022 that proposed tools designed to measure barriers to medication self-management in older adults ( $\geq 60$  years) with at least two psychometric properties established were included. We excluded studies conducted with inpatients or assisted living residents and condition-specific tools. Covidence was used to perform independent title, abstract and full-text screening by three reviewers

Result: Of the 7235 studies that were screened, 39 articles, four theses, one conference abstract, and two articles from the bibliography met the inclusion criteria. We identified 44 tools from the included studies; of these, 19 tools measured a combination of various barriers mentioned previously, 12

assessed only cognition, five only vision, one only auditory, three only environmental (social support), and four only motivational factors.

Conclusion: This scoping review identified a number of validated tools to measure various challenges that older adults encounter with medication management. However, no one tool measures all five barriers (physical, cognitive, sensory, motivational, and environmental) to medication-taking at home.

**Name:** Bobby Neudorf, Christopher Dinh, Vanessa Barnes, Christina Stergiou-Dayment, & Laura E. Middleton

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Enhancing Minds in Motion<sup>â</sup> as a virtual program delivery model for people living with dementia and their care partners

**Abstract:** Background: The Alzheimer Society of Ontario's Minds in Motion (MiM) program improves physical function and well-being of people living with dementia (PLWD) and their care partners (CP). With the COVID-19 pandemic, there was an urgent need to transition to a virtual MiM that was similarly safe and effective.

Objective: To describe the new, virtual MiM and evaluate its acceptability, and impact on quality of life, and physical and cognitive activity of participants.

Methods: Survey of ad hoc virtual MiM practices and a literature review informed the design of the virtual MiM program: 8 weeks of weekly 90-minute sessions that included 45-minutes of physical activity and 45-minutes of mental and social stimulation in each session. Participants completed a virtual MiM at one of 6 participating Alzheimer Societies in Ontario, as well as assessments of quality of life, physical and cognitive activity, and program satisfaction pre- and post-program.

Results: 111 PLWD and 90 CP participated in the evaluation (average age of 74.6±9.4 years, 61.2% had a college/university degree or greater, 80.6% were married, 48.6% of PLWD and 75.6% of CP were women). No adverse events occurred. MiM participants rated the program highly (average score of 4.5/5). PLWD reported improved quality of life post-MiM and reported increased physical activity levels and cognitive activity levels post-MiM.

Conclusion: The virtual MiM program is acceptable, safe, and effective at improving quality of life, cognitive and physical activity levels for PLWD, and cognitive and physical activity levels among CP.

**Name:** Bonita Nath, Mark Oremus, Yeying Zhu, Colleen Maxwell, & Charity Oga-Omenka

**Presentation Type:** Poster

**Presentation Title:** The Association between Religious Participation, Depression and Memory in Middle-Aged and Older Adults: A Moderated Mediation Analysis of the Canadian Longitudinal Study of Aging

**Abstract:** Background: The importance of religion in middle-aged and older adults cannot be underestimated. Persons who engage in religious practices may possess greater resilience, positivity, strength and hope, compared to persons who do not engage in religious practices. Moreover, religious involvement has been shown to be protective against memory decline. Although linkages exist between religious participation and memory, there is a dearth of literature examining the mediating effects of depressive symptoms on this association. Objectives: We will use the Canadian Longitudinal Study on Aging (CLSA) to: 1. Examine the association between baseline religious participation (main exposure) and repeated measures of memory (outcome) across three time points (baseline, three-year follow-up, and six-year follow-up); 2. Examine the association described in point # 1 above, controlling for the baseline values of sociodemographic, health, and lifestyle covariates; and 3. Examine whether depressive symptoms mediates or moderates the adjusted association in point # 2 above. Methods: Religious participation will be measured as the frequency of participating in any religious activity, e.g., services or choirs, over the past year. Immediate- and delayed-recall memory (outcome) will be assessed using a modified version of the Rey Auditory Verbal Learning Test. Conditional process analysis will be utilized to assess whether depressive symptoms mediates or moderates the association between religious participation and memory. Hypothesized results: We hypothesize that depressive symptoms may mediate or moderate the relation between religious participation and memory because (i) faith-based social supports can mitigate the

impact of depressive symptoms, (ii) which are a known risk factor for memory impairment. Conclusion: The findings from this research may inform the development of interventions and policies related to cognitive health in middle-aged and older adults

**Name:** Brittany Kroetsch

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Evaluating the acceptability of the interRAI Check-Up self-report in Kampala district of central Uganda: A qualitative study

**Abstract:** Background: The Ugandan healthcare system faces structural challenges in managing the emerging medical and social needs of its aging population. A promising strategy that can be taken to address these challenges is the integration of the interRAI Check-Up self-report (CU-SR), a valid and reliable comprehensive geriatric assessment instrument.

Objective: This study aimed to assess the acceptability of the CU-SR instrument in central Uganda to inform geriatric healthcare system planning and care practices.

Methods: Semi-structured interviews were conducted with healthcare providers (n=12) at the Reach Out Mbuya Community Health Initiative to characterize acceptability of the CU-SR in central Uganda. Participant characteristics were summarized using descriptive statistics. Interview data were analyzed thematically using a deductive approach guided by the Theoretical Framework of Acceptability.

Results: The CU-SR was found to be acceptable for use in central Uganda, with minor assessment and implementation barriers identified. Gaps in assessment coverage included economic stability, food security, living arrangement, and the physical environment. Available languages, technology, and time to complete the assessment introduced barriers to implementation. Question modifications, further translations, and the provision of reliable tablets were recommended to address limitations. Ongoing capacity training for CU-SR use by healthcare providers is also needed.

Conclusion: This study offered insight into how the CU-SR can support the development of a geriatric-friendly system of care in Uganda. This was also an important step in establishing an

interRAI community of practice to facilitate an integrated care system across other countries in Africa.

**Name:** Christopher Dinh & Laura Middleton

**Presentation Type:** Verbal (rapid fire)

**Presentation Title:** Recommendations on best practices for the delivery of virtual exercise programs: A case study of the virtual offering of Minds in Motion

**Abstract:** Background

With the COVID-19 pandemic many in-person programs were forced to close due to restrictions enacted by the government. As such to continue operating, many different services and programs rapidly adopted the virtual format. Minds in Motion (MiM) is a program adapted and offered by the Alzheimer's Society of Ontario for people with dementia and their care partners that consists of exercise, and group cognitive stimulation activities. MiM like other programs during the pandemic was adapted to a virtual delivery model and was standardized for safety. Though many programs are returning to in-person delivery models, the virtual models offer benefits and accessibility that may see them continue to operate into the future. As such it is important to establish best practices for the safe and effective delivery of virtual exercise programs.

Objectives

The objective of this study is to examine the data pertaining to the virtual offering of the Minds in Motion program in Ontario to determine a set of recommendations that can help inform and contribute to the best practices for the delivery of virtual exercise programs.

Methods

Qualitative analysis of the semi-structured interviews offered post-program that included a subset of participants and all willing MiM instructors at participating sites around Ontario.

Results

To be determined.

Conclusion

To be determined.



**Name:** Cindy Wang & Suzanne L. Tyas

**Presentation Type:** Verbal (rapid fire)

**Presentation Title:** Does Anxiety Lower Executive Function by Reducing Social Support? A Moderated Mediation Analysis in the Canadian Longitudinal Study on Aging

**Abstract:** Background

Anxiety is one of the most commonly diagnosed conditions in older adults and is known to impair executive function, a key cognitive domain involved in problem-solving and decision-making. Although evidence suggests social support buffers against cognitive decline, it is unclear whether the impact of anxiety on executive function is mediated by social support. We hypothesize that anxiety may lower executive function by reducing the availability of social support.

Objective(s)

To determine whether social support mediates the association between anxiety and executive function in middle-aged and older adults, and if this association is moderated by age and sex.

Methods

This study will analyze baseline (T1) and first follow-up data (T2) from the Comprehensive cohort (n=30,097) of the Canadian Longitudinal Study on Aging (CLSA). History of a physician-diagnosed anxiety disorder (T1) is self-reported. Executive function (T2) is based on standardized and combined scores of five neuropsychological tests. Perceived social support (T1) is assessed using the Medical Outcomes Study - Social Support Survey. Conditional process analysis will test whether social support mediates the association between anxiety and executive function after controlling for sociodemographic, health, and lifestyle covariates and including age and sex as moderators.

Results

The proposed study will be presented.

Conclusion

Examining the interrelationships between anxiety, social support, and executive function will contribute to our understanding of mental health effects on cognition. Our study will inform social support-oriented policy and programming targeted at older individuals with anxiety whose needs may also vary based on their age and sex.

**Name:** Douglas Andrews & Lori J. Curtis

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Population Aging and Canada's Social Contract: COVID-19 Catalyst for Change

**Abstract:** This paper discusses potential developments with respect to social support systems arising from the impact of the COVID-19 pandemic and within the long-term context of an aging population, in three main sections. Any changes to social support systems have the potential to change the intergenerational social contract through revised benefits, reallocation of tax burdens, or both. The first section of the paper outlines broadly areas where governments in Canada are taking or promising actions in response to COVID-19. One area is long-term care (LTC). The second section focuses the discussion on LTC, and the costs and implications of actions required to deliver LTC of acceptable quality, with respect to: "catch-up" measures needed to address years of underfunding and lax attention to quality; policies around human resources, training requirements and immigration that may have far-reaching consequences; and care requirements of an aging population that are increasing beyond the capacity of family caregivers. Given budget constraints, increased expenditures on LTC will have an impact on spending on other social programs. Long term spending decisions regarding budget envelopes require consideration, implicitly or explicitly, of a social discount rate (SDR). The third section discusses the question of how population aging and structure affects the SDR. We consider what the SDR might be in Canada and illustrate the trade-offs for spending on the various envelopes over different time horizons, which has ramifications for the social contract. The paper uses a selective review of literature to identify aspects pertinent to the examination of the SDR, which may be affected by population aging, and illustrates the potential impact by presenting calculations based on publicly available data.

**Name:** Emily Rutter, Mark Oremus, Colleen J. Maxwell, Megan E. O'Connell, & Suzanne L. Tyas

**Presentation Type:** Poster

**Presentation Title:** Is social support associated with executive function in community-dwelling adults over time? Findings from the baseline and first follow-up wave of the Canadian Longitudinal Study on Aging

**Abstract:** Background. Given the widespread exposure to prolonged social isolation due to the coronavirus pandemic, developing a better understanding of how social support impacts cognition (i.e., executive function) is essential to maximizing public health efforts aimed at mitigating the long-term effects of social isolation on population health. Objectives. This research will: 1) investigate the structural and functional components of social support and their longitudinal association with executive function in mid- to late-life, and 2) determine whether these associations differ by age and sex. Methods. Analyses will utilize baseline (T1, 2012-2015) and first follow-up data (T2, 2015-2018) from the Comprehensive cohort (n=30,097) of the Canadian Longitudinal Study on Aging, an ongoing study of community-dwelling adults aged 45 to 85 years at recruitment. The 19-item Medical Outcomes Study Social Support Survey (MOS-SSS) was used to assess overall and subtypes of functional social support (T1). Structural support (T1) was assessed using marital status and household structure. Executive function (T2) was calculated as the sum of z-scores from five executive function test scores. Bivariate and logistic regression analyses, adjusted for relevant sociodemographic, health and social covariates, and stratified by age and sex, will assess the association of functional and structural social support with executive function. Results. Data analysis is ongoing and results will be available at presentation. Conclusion. Understanding how different aspects of social support impact cognitive function—and, by proxy, independence and

adaptability— is essential to public health efforts aimed at improving health outcomes for older adults through evidence-based social programs and policies.

**Name:** Emma Conway, Ellen MacEachen, Laura Middleton, & Carrie McAiney

**Presentation Type:** Poster

**Presentation Title:** Rationale for Use of Adapted or Modified Methods with People with Dementia in Research: A Scoping Review

**Abstract:** Background: Engaging with people living with dementia in qualitative research often requires the adaptation or modification of research methods to support participation. While people with dementia have the right to participate in research, many are excluded due to methodological challenges, stigma, and discrimination. This scoping review sought to understand the rationale provided for including people with dementia in qualitative research studies that employ modified or adapted data collection tools to promote accessibility and facilitate engagement. Purpose: The objective of this scoping review is to understand the extent and type of evidence in relation to adapted and modified methods used, and rationales provided for their use, in research with people with dementia. Design and Methods: This review was conducted through a search of primary studies published in English in OECD countries from 2017 to 2022 using PubMed, Scopus, PsycINFO, and CINAHL databases. Duplicates were removed and results were uploaded to Covidence, where 2 reviewers screened titles and abstracts for inclusion. Full texts were reviewed by 2 reviewers, and included studies were extracted using a pre-determined extraction chart. Results: 28 studies were selected for inclusion, and 27 provided rationales for adapting the method of data collection for people with dementia. Of the 27 studies that provided a rationale for adapting their methods, the justifications included were based on human rights (n=9) or ethical/justice principles (n=9). 19 studies included rationales not classified in any of the above. Content analysis was employed to examine other rationales provided. No studies

described measuring impacts of their methodology on engagement. Five studies provided anecdotal evidence that their methodology supported engagement. This review contributes to the understanding of modified or adapted research methods and highlights areas for future study through examining the current use of such methods and the connections to improved engagement in research, accessibility, and human rights for people with dementia. Studies to evaluate effectiveness of adaptations on engagement of people with dementia in research are needed.

**Name:** Erica Dove & Arlene Astell

**Presentation Type:** Poster

**Presentation Title:** Using Exercise to Measure Fall-Related Psychological Concerns in Dementia: Can Technology Play a Role?

**Abstract:** Background: Fall-related psychological concerns (FRPC, e.g., low balance confidence) contribute to increased fall risk in people with dementia and Mild Cognitive Impairment (MCI). Exercise can improve balance, but less is known about the impact on FRPC of people with dementia and MCI and whether technology can expand the delivery of these exercise programs. Objective: This scoping review aimed to understand the exercise interventions used to measure FRPC in people with dementia and MCI, with a secondary focus on technology-mediated interventions. Methods: Using Arksey and O'Malley's (2005) five-stage scoping review framework, 968 search combinations were run across six electronic databases. Articles: (i) were available in English full text; (ii) featured original research with an intervention design; (iii) targeted people with dementia or MCI with the exercise intervention; and (iv) included outcomes measuring FRPC. Results: Twenty-one articles were identified for inclusion, of which six used technologies to deliver the exercise intervention to study participants. Technology-based interventions included momentum-based dumbbell training to tablet-based exercise programs. Half of the interventions yielded significant post-test results in FRPC (i.e., improved confidence or reduced concerns about falling). Discussion: This scoping review highlights the potential of exercise interventions to measure FRPC in people with dementia and MCI. The review also highlights technology-mediated interventions as a potential mechanism to address FRPC in people with dementia and MCI.

**Name:** Hector Perez, Antonio Miguel-Cruz, Christine Daum, & Lili Liu

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Using data to characterize and describe missing incidents involving persons living with dementia

**Abstract:** Studies indicate that six out of ten persons living with dementia would wander, yet little is known about these incidents. In one of the first studies using Canadian data, we described missing incidents involving persons living with dementia using a subscription-based registry. We analyzed data from the MedicAlert® registry from January 2015 to July 2021 (n=589) using a retrospective descriptive approach to describe the missing incidents. We performed statistical analyses using univariate and bivariate data. We analyzed 589 missing incident cases involving 454 individuals. The average age of the subscribers engaged in missing incidents was 82 years (SD 8.66), and 53% were female. People who declared their dementia status at the time of MedicAlert® membership were involved in the majority (77.6%) of missing incident cases. Additionally, recurring incidences made up 22.9% of the cases. The missing person was typically last seen in a private residence (66.4%) or a residential care facility (19.5%) but was later discovered in either outdoor areas (51.9%) or interior public areas (30.3%). Missing cases involving persons living with dementia were most frequently connected with walking (91.5%). These occurrences were reported by both first responders (46.1%) and good Samaritans (44.2%). Most missing incidents included MedicAlert® subscribers living with dementia. Missing incidents often occur when a person leaves a private residence and goes to a public area. Repeat incidences made up over a quarter of the total incidents. Characterization of missing persons living with dementia can inform the prevention of future missing incidents and their adverse outcomes.



**Name:** Huda Nasir, Cindy Wei, Emma Rossnagel, Rachael Donnelly, Kayla Regan, Heather Keller, Kelly Skinner, Shannon Freeman, Chelsea Pelletier, Isabella Romano, Claire Buchan, Alle Butler, Amanda Doggett, Cameron Aird, Aderonke Agboji, Laura Middleton, & the DREAM Steering Team

**Presentation Type:** Verbal (rapid fire)

**Presentation Title:** Dementia resources for eating, activity, and meaningful inclusion (DREAM): Full Evaluation

**Abstract:** Background: The aim of the Dementia Resources for Eating, Activity, and Meaningful Inclusion (DREAM) project is to educate community service providers (SP) on supporting people living with dementia (PLWD) in community-based programs, and to provide physical activity and healthy eating resources to PLWD and their care partners (CP). The DREAM toolkit includes a website with videos, handouts, and written content. Objective: The purpose of the DREAM evaluation was to use surveys/interviews to assess changes in knowledge, behaviours, and attitudes in PLWD, CPs, and SPs after reviewing the DREAM toolkit. Methods: Assessments were conducted (1) before participants engaged with the toolkit, (2) after a two-week engagement period, and (3) two to three months later. A pre-survey gathered demographic information and assessed participants' knowledge, confidence, and attitudes around dementia, physical activity, eating habits, and general wellbeing. Over two weeks, participants reviewed the DREAM toolkit and completed a post-survey to assess changes in knowledge and attitudes. Participants were asked to implement their learnings into their personal lives or professional roles over the next two to three months. An exit survey assessed application of the DREAM toolkit material and changes in knowledge, behaviour, and attitudes. A subset of SPs, PLWD, and CPs completed semi-structured interviews. Results: 33 SP, 5 PLWD, and 21 CPs participated in the study. SP's reported improved knowledge/confidence after reviewing the DREAM toolkit. Further

results in progress. Conclusion: We will disseminate the DREAM toolkit, enabling more people to benefit from the resources and promote the health and wellbeing of PLWD.

**Name:** Hussain Ali Naqvi & Catherine Tong

**Presentation Type:** Verbal (rapid fire)

**Presentation Title:** Examining Variations of Anxiety in Persons Living with Dementia Across Ethnicities

**Abstract:** Aims & Objectives: The literature on anxiety symptoms in ethnic groups with psychoneurological diseases like dementia offers limited insights on the symptomatic screening and diagnosis of dementia in clinical settings. Therefore, this scoping review seeks to uncover the similarities and differences on the prevalence, co-symptoms, and associated factors of anxiety symptoms in people living with dementia across ethnicities in North America. Subsequently, this information will equip providers to make more accurate decisions when screening/diagnosing anxiety symptoms prior to a decision on a dementia diagnosis. Method: Search terms were developed with relevance to the topic and a scoping review methodology was adopted. Selections of search terms were based on their relevance as well as their similarity with the topic, including words such as “Dementia”, “Anxiety”, “Psychoneurological Disorder”, “Dementia Screening”, or “Ethnicity” etc. Examples of searches include “Anxiety Symptoms AND Dementia AND ethnicity” or “Psychoneurological AND anxiety AND dementia AND race OR ethnicity”. Searches were conducted in October 2021 by Hussain Ali Naqvi across three databases; PubMed, Scopus and PsychINFO for publications in English after 2005. Findings & Conclusions: This review found that South-Asian and Latin American populations with dementia were more likely to present depressive symptoms with strong anxiety, while African American groups were more likely to display multiple morbidity disorders with anxiety. As such, literature suggested that South-Asian and Latin populations be more actively screened for the presence of depression with anxiety to support a dementia diagnosis, while cautioning providers to not misdiagnose African American populations with mental health disorders such as schizophrenia. Moreover, descendants of European settlers would have more extreme phobic anxiety with psychosis, which is a key distinguisher of this

ethnic group with others in the study. Anxiety was less common in Chinese, Japanese, Taiwanese and Hong Kong originating groups, suggesting that the absence of this symptom does not necessarily dilute the case for a dementia diagnosis. Overall, the review presents a diverse consortium of cases where varying prevalence's of anxiety, co-symptoms and associated factors in people living with dementia vary across ethnic groups. For clinical workers, this is a key finding that can support existing screening/diagnosis procedures for dementia.

**Name:** Karen Li, Nathan Nagallo, Erica McDonald, Colin Whaley, Kelly Grindrod, & Karla Boluk

**Presentation Type:** Poster

**Presentation Title:** How to run a volunteer-driven technology literacy program for your older adult residents: a framework and guide

**Abstract:** Background

The COVID-19 pandemic highlighted the importance of technological literacy in retirement homes and residential care facilities, particularly as a means of helping residents stay connected during periods of visitor restrictions. The enTECH Computer Club, a volunteer-led student organization at the University of Waterloo, created a knowledge translation toolkit to aid organizations in implementing technology literacy programs (TLPs) for older adults.

Objective

To present a framework developed for implementing TLPs in retirement homes and residential care facilities through expanding on the knowledge translation toolkit and the framework for person-centered care.

Methods

Key concepts were extracted from the knowledge translation toolkit to develop a TLP framework. The framework for person-centered care was adapted to sort the identified concepts into three categories: "structure," "process," and "outcome." We synthesized information from the toolkit to create foundational principles and potential actions for each category.

Results

The TLP framework focuses on a person-centered care approach to emphasize TLP implementation. The 7 "structure" domains focus on developing an organizational infrastructure, identifying 10 foundational principles and 25 potential actions. The 4 "process" domains outline procedures for a smooth transition, with 12 foundational principles and 9 potential actions. The 2 "outcome" domains focus on evaluating the TLP and making improvements, with 6 foundational principles and 6 potential

actions.

### Conclusion

The TLP framework aligns with current literature promoting the importance of improving technology literacy among older adults. Despite potential limitations, launching TLPs in the community can ultimately produce positive outcomes that benefit both older adult participants and the organizations.

**Name:** Kaveenaa Chandrasekaran, Sepali Guruge, Cristina Catallo, & Kateryna Metersky

**Presentation Type:** Poster

**Presentation Title:** Health Implications of Social Isolation and Loneliness among Older Adults During the COVID-19 Pandemic

**Abstract:** According to the World Health Organization, high-quality social relationships are imperative for health and wellbeing. During the COVID-19 pandemic, quarantine and social distancing were key measures implemented by governments globally to mitigate the spread of the virus, which resulted in exacerbation of social isolation among older adults. No reviews could be located that explored the overall health implications of social isolation in this population during the COVID-19 pandemic. Thus, a scoping review was conducted using the PRISMA-ScR checklist. A search was performed of CINAHL, Medline, and Emcare databases to identify empirical literature published in English between 2020 to 2023. Studies were screened using a multi-level process, and key data were extracted. Thematic analysis revealed the following: 1) Negative implications (i.e., physical functioning, mental health, and social health and wellbeing); and 2) Positive coping strategies older adults used to mitigate negative implications of social isolation (i.e., engaging in exercise, seeking external support, and utilizing digital platforms). Nurses working with older adults can implement the coping strategies identified in this review to reduce their experiences of social isolation and loneliness, and thereby promote their health and wellbeing.

**Name:** Krithika Subbiah & Elena Neiterman

**Presentation Type:** Poster

**Presentation Title:** CARE IN THE HOME AND HOME CARE: How do South Asian communities perceive caring for older adults in the home and home care services

**Abstract:** Background: Canada is a multicultural country with almost 23% of its population born overseas (Statistics Canada, 2022). In 2021, over 2.5 millions of Canadian immigrants originated in South Asia, making it the largest visible minority group in Canada (Statistics Canada, 2021). Access to culturally competent health care has been researched worldwide (Zghal et al., 2021; Jongen et al. 2017, Petrucka et al., 2007). It is specifically imperative while providing treatment to older immigrants who struggle with language barriers and have firmly held cultural values and health beliefs (Wang & Kwak, 2015). Research Objectives: The objective of this study is to explore how South Asians living in Ontario view caring for older adults in the home. Additionally, this study will be exploring attitudes towards home care services among South Asian individuals living in Ontario and their recommendations for culturally competent home care services. Methods: This study will utilize qualitative semi-structured interviews as a form of data collection. I will be interviewing approximately 15 participants, including South Asian older adults, their family caregivers and other community members who work with South Asian families. The interview guide will consist of open-ended questions and will explore participants' perceptions on provision of care in the home and home care services. It will also explore their views on cultural considerations in the provision of home care services to South Asian communities.



**Name:** Laura Lupoi, Mark Oremus, Colleen J. Maxwell, & Suzanne L. Tyas

**Presentation Type:** Poster

**Presentation Title:** Do depressive symptoms mediate the association between perceived social support and executive function? A moderated mediation analysis in the CLSA

**Abstract:** BACKGROUND: Social support and depression are modifiable factors that can affect cognition in older adults. However, gaps remain in our knowledge of the complex and intertwined relationships between social support, depression, and key domains of cognition, such as executive function. OBJECTIVES: 1) explore whether depressive symptoms mediate the association between perceived social support (overall and subtypes) and executive function, and 2) ascertain if this mediation is moderated by age and sex. METHODS: Analyses will be based on baseline (T1) and follow-up (T2) data from the Comprehensive cohort (n=30,097) of the Canadian Longitudinal Study on Aging, a population-based study of adults aged 45-85 years. Perceived social support (exposure) is measured using the Medical Outcomes Survey-Social Support Survey, which assesses overall levels of perceived social support and four subtypes. Executive function (outcome) is based on the combined z-scores of five cognitive tests. Depressive symptoms (mediator) is measured using the 10-item Centre for Epidemiological Studies Depression Scale. Moderated mediation will be assessed using conditional process analysis, a regression-based framework that will adjust for moderators (age and sex) and relevant sociodemographic, health, and lifestyle covariates. RESULTS: Reported results will include Path I (exposure to mediator) and Path II (mediator to outcome) effects, and the proportion of the association between perceived social support (T1) and executive function (T2) mediated by depressive symptoms (T2). CONCLUSION: Our study will inform social support interventions to promote cognition by determining the value of targeting depressive symptoms and identifying vulnerable populations by age and sex.

**Name:** Mary Hynes, Arlene Astell, Nicole Anderson, & Monika Kastner

**Presentation Type:** Verbal (rapid fire)

**Presentation Title:** Peer leadership is not enough. The importance of empowerment and community in older adult health management.

**Abstract:** Background: As the older adult population grows, improved health self-management could reduce the expected social and financial healthcare costs. Reducing health risks often leads to better health outcomes and peer support groups have a history in supporting self-management of health risk behaviour. Objective: We wanted to learn if older adults have successfully provided peer leadership in group interventions for older adult health management. Method: Using the Joanna Briggs Institute methodology for scoping reviews we searched three databases (Medline, Embase, and AgeLine) for articles describing older adult leadership for older adult health improvement in older adult health promotion or improvement groups. From the initial 16,000+ results, 19 studies met the criteria for full text screening and analysis. Results: Of the 19 studies, 12 used peer leaders and seven had a reciprocal support model. For those using peer leaders, training varied from none to 30 weeks. Older adult leadership or reciprocal support occurred in a range of settings and health conditions, including diabetes and general health improvement. Interventions lasted from four weeks to 24 years. No quantifiable patterns of health management were observed. What has emerged is that positive physical and behaviour changes occurred more often when peer leaders or co-facilitators were expected to motivate or encourage participant engagement or mutual support and where expectations included participant goal setting behaviour. Conclusions: When asked participants preferred and appreciated peer leadership. However, those feelings didn't always result in positive health changes. Sharing and empowerment appear to be the essential ingredients for improved health management.

**Name:** Meagan Jackson & Heather Keller

**Presentation Type:** Poster

**Presentation Title:** Confirming and Expanding SCREEN for a Frail Population

**Abstract:** Background: As Canada's population continues to age, it is essential to screen for frailty. Frailty is defined as "an age-related syndrome of physiological decline, characterized by marked vulnerability to adverse health outcomes". 1 Long term poor nutrition, specifically in the older population can lead to insufficient protein and energy intake which can lead to weight loss, an indicator for frailty. 2 The Seniors in the Community Risk Evaluation for Eating and Nutrition (SCREEN)-14 is a questionnaire created to measure nutrition risk in older adults. Objectives: The aim of this study is to 1) assess the current SCREEN-14 questions to determine the minimum amount of question needed to identify frailty and 2) to evaluate if same individuals are being identified for nutrition risk when comparing SCREEN 8 to SCREEN 14 using the data collected from Nutri-eSCREEN. Methods: Data from the Nutri-eSCREEN dataset will be utilized for this study. Nutri-eSCREEN contains both SCREEN 14 and SCREEN 8 in an online platform. Using the data, statistical analysis, specifically psychometric models such as a Rasch analysis will be conducted. Using demographic variables, a bivariate analysis will be completed to determine if there are certain questions within the SCREEN tool that trigger nutrition risk at a certain age. Significance of Research: As the population is rapidly aging, this study will help to better prepare clinicians to screen for frailty in older adults at nutrition risk<sup>3</sup> which will allow them to start early interventions to deal with frailty and to improve the overall health outcomes of community dwelling older adults.

**Name:** Michelle Vuong & Suzanne L. Tyas

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Do educational level and academic performance predict cognitive reserve? Exploring interactions between educational and genetic factors.

**Abstract:** Background: Although Alzheimer's disease (AD) is defined by the presence of both AD neuropathology and dementia, some individuals with AD neuropathology do not show the cognitive impairments seen in dementia. This contradiction has led to the concept of cognitive reserve. Early-life cognitive stimulation, such as education, is thought to enhance cognitive reserve. Apolipoprotein E is the most common genetic risk factor for AD and modifies the association of education with dementia. Objectives: To determine if early-life educational level and academic performance are predictors of later-life cognitive reserve, and if Apolipoprotein E modifies this association. Methods: Analyses will be based on the Nun Study, a longitudinal study of 678 participants aged 75+ at baseline. Data on educational level and academic performance in high school were collected from convent archives. Dementia was diagnosed based on impairment in memory and at least one other cognitive domain, impairment in activities of daily living, and cognitive decline. The sample will be restricted to those who meet neuropathologic criteria for AD, determined via post-mortem assessment. Cognitive reserve will be defined as the absence of dementia among those with AD neuropathology. Logistic regression models will assess the association of educational level and academic performance with cognitive reserve, including Apolipoprotein E as a potential effect modifier and controlling for relevant covariates. Results: Preliminary results are expected at the time of the conference. Conclusion: Understanding predictors of cognitive reserve is vital to develop strategies to enhance cognitive reserve and thereby diminish the impacts of dementia on individuals and society.

**Name:** Mohammad Nazmus Sakib & Peter Hall

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Diabetes as a risk factor of cognitive impairment in middle-aged and older adults: A cross-sectional analysis of the Canadian Longitudinal Study on Aging (CLSA)

**Abstract:** Background

Cognitive impairment is a growing public health concern globally due to the increasing demographic of older adults. Diabetes is recognized as a significant risk factor for cognitive impairment. However, this association has not been thoroughly examined using large-scale population-based datasets.

Objectives

This cross-sectional study aimed to investigate the potential association between cognitive function and diabetes in a large population-based sample of middle-aged and older adults. We hypothesized that Type 2 Diabetes (T2DM) would be associated with lower performance on cognitive tasks, and this association would be moderated by lifestyle factors such as physical activity and alcohol consumption.

Methods

We utilized baseline data from the Canadian Longitudinal Study on Aging (N = 30,097) to test our hypotheses, using five indicators of cognitive function (animal fluency, Stroop interference, reaction time, immediate and delayed memory recall). We conducted multivariate multivariable linear regression modeling and subsequently performed tests for moderation analysis with lifestyle variables.

Results

The analysis showed that T2DM is associated with lower performance on most cognitive tasks, including those that assess executive function ( $b = 0.60$ , 95% CI 0.31 to 0.90,  $p < 0.001$ ), reaction time ( $b = 16.94$ , 95% CI 9.18 to 24.70,  $p < 0.001$ ), immediate ( $b = -0.10$ , 95% CI -0.18 to -0.02,  $p = 0.018$ ) and delayed ( $b = -0.12$ , 95% CI -0.21 to -0.02,  $p = 0.014$ ) memory recall. No significant association was observed between cognitive performance and other types of diabetes. Moderation analyses

were mostly non-significant, with significant moderation effects observed only between T2DM and alcohol intake for animal fluency and T2DM and physical activity for reaction time.

### Conclusion

There appears to be a negative association between T2DM and several major cognitive domains. Further studies should examine this association using longitudinal datasets.

**Name:** Navjot Gill & George Heckman

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Dementia Dastan: Exploring the Experiences of People Living with Dementia and their Care Partners in the Canadian South Asian Community

**Abstract:** Background

South Asians (SA) in Canada are a diverse group with different socio-cultural norms influencing their living experience with dementia. These include language barriers, perceived stigma regarding dementia and lack of access to services, all of which may adversely affect health outcomes. There is limited understanding of the perspective of persons living with dementia (PLWD), care partners (CP) in the SA community, and healthcare professionals caring for them.

Objectives/Methods

With a mixed-methods (convergent) design, the Canadian Institute for Health Information Home Care Reporting System data will be used to compare the health characteristics and outcomes of PLWD and their CP in the SA community versus the general population using logistic regression (Objective 1). The qualitative aspect of the project will include two sets of semi-structured interviews, analyzed using thematic analysis. Healthcare professionals (group one) will be interviewed to explore their understanding of culturally competent care (Objective 2). PLWD and CP (group two) will be interviewed to understand the barriers and facilitators to awareness, seeking and receiving diagnosis and post-diagnosis services (Objective 3).

Future Implications

The findings will potentially guide policymakers, healthcare professionals, and researchers with an understanding of what is vital to the SA community regarding dementia care, aiding in creating equitable changes to improve access to information and services.

Conclusion

This study's findings will form a foundation to understand the challenges faced by persons in the SA community living with

dementia and guide future steps toward much-needed conversations within the community to raise awareness and fight the stigma.



**Name:** Olivia Tupling, Laura Middleton, Heather Keller, Carrie McAiney, Sevana Haghverdia, Kayla Regan, William Heibein, Gail Roth, Lloyd Schneider, & Margaret Shoemaker

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Feasibility of the Virtual DELIGHT Program for People with Dementia and Care Partners

**Abstract:** Background

Improving supports to enhance quality of life for people with dementia is a priority of research and practice. The DEmentia Lifestyle Intervention Program for Getting Healthy Together (DELIGHT) was co-designed by people with dementia, care partners, community stakeholders, and researchers with the goal of promoting 'living well' with dementia.

Objective

The aim was to assess the feasibility of the 8-week virtual DELIGHT program.

Methods

The DELIGHT program incorporates exercise, and social, facilitated discussion on topics related to health and well-being (healthy eating, physical activity, social support, mental well-being, sleep). Feasibility was evaluated through recruitment rate, attendance, and completion rate, along with semi-structured interviews with participants and program instructors.

Results

An average of 9.5 participants were recruited over a two-month period, with 89% completing the program. Average attendance was 77%, with most missed sessions occurring due to conflicting commitments and technology challenges. Participants reported that the DELIGHT program was a comfortable space where they felt connected to a community of people on a similar journey. Physical improvements and gained knowledge, gave participants motivation for incorporating healthy habits into daily life. Minor changes to exercise delivery (e.g., camera angling, intensity tracking) and facilitation of discussion (strategies to build participant relationships) were suggested to be implemented in future offerings.

## Conclusion

The virtual DELIGHT program was a positive experience for participants, who all expressed an interest in re-enrolling. With adaptations, the DELIGHT program will be ready for full-scale evaluation and potential future implementation to improve the well-being of people living with dementia and their family care partners.

**Name:** Pamela Hopwood & Ellen MacEachen

**Presentation Type:** Poster

**Presentation Title:** 'Uberized' personal support services for older individuals: An Institutional Ethnography

**Abstract:** Background: Personal Support Workers (PSWs) are an integral part of the aged care workforce. In an environment of under-funded public care, worker shortages and increasing need, individuals seeking caregivers are turning to digital platforms to hire PSWs for in-home support. Little is known about how these platforms (e.g., eldercare.com, Boom Health) shape PSW-provided care for older populations and work conditions. Objectives: My doctoral thesis will examine PSWs working via platforms, and the clients who turn to this 'Uberized' form of personal support service. The aim of this research is to improve our understanding of platforms' functions, how they construct care, and the social and health implications for the workers involved. Methods: I will use institutional ethnography to explore the institution of digital platforms for PSWs doing elder care work. Through in-depth interviews with PSWs who use platforms, I will investigate their experiences and explicate these by mapping and writing accounts of how they engage in platform use. PSW, client, and digital platform company informant knowledge, as well as the discourses about digital platforms, will contribute to understanding how digital platforms work. Using critical analysis, I will examine the experiences and the social structural elements embedded in the care platforms to consider PSWs' occupational health in these work conditions. Results: My research will elucidate how digital platforms affect work conditions for PSWs providing care for older adults, and how this model of work dictates the social welfare and work policy environment. Conclusion: This study will contribute to an emerging area of research about digital platforms and PSW-provided health care for older populations.

**Name:** Rebecca Rios, Brent E. Faught, Luke Turcotte, Anteneh Ayanso, Orlando, E. & Asif Khowaja - Brock University, Department of Applied Health Sciences

**Presentation Type:** Poster

**Presentation Title:** The Financial Burden of an ALC Designation in Acute Care Encountered by Healthcare and Society.

**Abstract:** In Canada, persons that occupy a bed within a hospital care setting that is no longer appropriate for their current level of need are designated as Alternate Level of Care (ALC). Substantial resources are invested to streamline the discharge and transfer of ALC patients in order to meet the ever-rising demand of hospital beds in Ontario. It is imperative to assess broader economic impacts pertinent to the delayed discharge of ALC patients. Although previous studies reported the health system costs of ALC patients encountered by hospitals, there is paucity of information surrounding the societal economic burden for patients and caregivers. This study proposes the use of a mixed methods economic evaluation approach to estimate financial and opportunity costs of ALC patients within Niagara Health hospitals. Qualitative interviews will be conducted with patients and caregivers to identify drivers of out-of-pocket cost, time, and productivity loss. Additionally, a generalized linear random-effect regression will be applied to calculate in-patient resource utilization. Finally, a Markov-simulation model will be applied to estimate long-term economic costs and outcomes. Likewise, quantitative analysis of the Ontario Case Costing Initiative (OCCI) Niagara Health Database will be performed to assess ALC-reflective burdens in the healthcare system. Our findings will bridge knowledge gaps regarding the economic impacts of ALC patients in the Niagara Region and enhance ALC-related understanding for other similar health settings.

**Name:** Rishabh Sharma, Sarah Abu Fadaleh, Neil Mahajan, Hawa Patel, Jessica Ivo, Sadaf Faisal, Feng Chang, Linda Lee, & Tejal Patel

**Presentation Type:** Poster

**Presentation Title:** The impact of medication reviews on clinical outcomes in persons with dementia: A scoping review

**Abstract:** Introduction: The high prevalence of polypharmacy and inappropriate medication use among older adults with dementia demands regular review of medications to provide quality care. However, limited evidence is available regarding the effectiveness of medication reviews in older adults with dementia. Objective: To identify gaps in current knowledge about the impact of medication reviews on clinical outcomes in older adults with dementia.

Methods: A scoping review was conducted utilizing the 5-stage framework by Arksey and O'Malley and PRISMA Extension for Scoping Reviews (PRISMA—ScR) guidelines for reporting. Ovid MEDLINE, Ovid EMBASE, and Scopus were searched in consultation with a librarian in January 2022 for relevant literature utilizing a combination of medical subject headings and keywords. Results: The initial search yielded 8346 citations. After de-duplication, two independent reviewers screened 5296 articles by title and abstract, of which 5091 did not meet inclusion criteria. The full texts of the remaining 205 articles were screened; of these, 21 articles and one conference abstract met the inclusion criteria. Two quasi-experimental pre-post studies, 14 observational studies, four randomized controlled trials, and two mixed methods feasibility studies reported fifty-seven outcomes relating to medication reviews, including drug-related problems (DRP) (n=10), drug-related interventions (n=11), evaluation of medication use (n=17), cost-effectiveness (n=2), and secondary outcomes such as dementia-related behavioral symptoms (n=8), drug-related admissions (n= 1), and other outcomes (n= 7). Conclusion: This scoping review identified gaps in the number of studies measuring quality of life, mortality, medication

management, and medication adherence as outcomes of medication reviews.

**Name:** Rishabh Sharma, Feng Chang, Linda Lee, Sadaf Faisal, Sarah Abu Fadaleh, Jessica Ivo, Bincy Baby, & Tejal Patel

**Presentation Type:** Verbal (rapid fire)

**Presentation Title:** Medication Review in Cognitive Impairment and Dementia: Comparison of Instruments

**Abstract:** Background: Cognitive impairment (CI) and dementia are significant concerns in older adults in Canada. The population of Canada is aging, and as it ages, the prevalence of CI and dementia will only rise. Drug-related problems (DRPs) are common and can cause up to 30% of hospitalizations in older individuals, including adverse drug reactions, drug interactions, potentially inappropriate medications use, and medication adherence. Prescribing in older patients with multiple morbidities, especially with dementia, is a complex process that demands regular review of medications to provide quality care to dementia patients. The Medication Review in Cognitive Impairment and Dementia (MedRevCiD) Checklist was created to assist pharmacists in identifying issues that may need in-depth assessment in individuals with dementia, such as patients' ability to manage their medications and identify non-adherence and functional impairment; patients' conditions that are connected to CI or dementia, medications that may worsen dementia, patients' treatment options for dementia that are safe and effective, patients' behavioural and psychological symptoms of dementia, and ultimately optimizing medication use. Objective: - To identify DRPs using the MedRevCiD checklist and Medication Appropriateness Index (MAI) (gold standard) in older adults with CI or dementia Methods: - An on-going cross-sectional study on older adults receiving care at MINT memory clinics for CI or dementia. Twenty-eight patients are to be included in the study. For each of the patients included in the study, the researcher reviews patient medical records to extract information on the sociodemographic and clinical characteristics information of patients. The researcher conducted a medication review with the pharmacist for the included participants. The researcher first applies MAI criteria to identify DRPs using. Once the DRPs identify

using the MAI criteria, the researcher applies the MedRevCiD Checklist to identify new DRPs not identified using the MAI criteria. Once the DRPs are identified, the researcher, in discussion with a pharmacist, will plan and propose recommendations at the patient, prescriber, and drug levels. This study will be the first study to identify DRPs using explicit and implicit criteria such as MedRevCiD checklist, MAI, Beers criteria.



**Name:** Sadaf Faisal, Tejal Patel, Jessica Ivo, & Sarah Abu Fadaleh

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Stakeholder's Values regarding Real-time Medication Adherence Monitoring: A Qualitative Study

**Abstract:** Background: Smart medication adherence devices can track medication intake data in real-time, which allows caregivers and clinicians to monitor a patient's medication intake and optimize medication adherence. However, the value of real-time medication-taking data availability for different stakeholders is not well understood.

Objective: To investigate the value various stakeholders place on smart adherence products and real-time medication intake data.

Methods: Different stakeholders, including patients, caregivers, community pharmacists, pharmacy owners, physicians, and insurance providers, were recruited using a purposive sampling strategy. Stakeholders participated in one-on-one semi-structured virtual interviews. Value was defined as "the worth, usefulness, or importance of someone or something." The ten values of Schwartz's value theory guided the interview guide. All interviews were recorded and transcribed verbatim. Data were analyzed using Braun & Clark's Thematic Analysis framework, and codes were mapped back to Schwartz's value theory. Results: Of the 31 participants interviewed. Qualitative analysis identified three themes and ten sub-themes, including (1) Perceptions of integrating smart medication adherence technologies and real-time monitoring (sub-themes: benefits expected from product use, valuable product features, potential users), (2) Technology adoption factors (sub-themes: social influence, user characteristics, healthcare system factors) and (3) Data management (sub-themes: privacy, data sharing, data reporting, liability). Conclusion: Different individuals have different motivations and goals influencing their use of these products for daily medication management, leading to varying levels of value placed on them. Stakeholders expressed a desire for smart adherence products and real-time medication intake data and

recognized the potential benefits, such as improved medication management and reduced caregiver burden.

**Name:** Sadaf Faisal, Devine Samoth, Yusra Alam, Hawa Patel, SooMin Park, Bincy Baby, Caitlin Carter, Jessica Ivo, & Tejal Patel  
\*Presented by: Hawa Patel\*

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Smart Medication Adherence Products

**Features:** An Updated Literature Review

**Abstract:** Background: Smart Medication Adherence Products (SMAPs) dispense medications, track real-time medication intake data, and assist patients with their in-home medication taking. A 2021 literature review identified 51 SMAPs. Due to the influx of digital technology since 2021, an update to this review is required to add new products, identify their key features and inform pharmacists of innovative products. Objective: To update the previous review of available SMAPs to identify new products and summarize the key features of SMAPs based on Mason et al.'s medication adherence monitoring technology assessment criteria. Methods: Grey and published literature and videos were searched on Google, YouTube, PubMed, Embase, and Scopus. The first 10 pages of Google and the first 100 results of YouTube were screened by using 4 and 5 keyword searches, respectively. SMAPs were included if they had a mechanism to dispense medications, tracked real-time medication intake data, and could automatically analyze data. Products were excluded if they were stand-alone applications, not marketed in English, or not for in-home use. Five researchers independently screened and abstracted data. Results: The review identified 114 SMAPS, including 80 marketed and 34 prototypes, grouped into 14 types. Among the marketed product, 67.5% (n=54) are available for consumer purchase. Of the products available for consumer purchase, 25.9% (n=14) are available globally, and 77.8% (n=42) in North America. Conclusion: An expanding market for SMAPs designed for at-home patient use is emerging, with various features available. Healthcare professionals can utilize these features to select and suggest products that meet the unique requirements of their patients.

**Name:** Samira Mehrabi, Sara Drisdelle, Hanna R. Dutt, & Laura E. Middleton

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Breaking Barriers: Exercise Professionals' Perspective of Remote Physical Activity Supports for Older Adults During and Beyond the Pandemic

**Abstract:** Background: The pandemic's public health restrictions and closure of exercise facilities prompted exercise professionals to explore alternative technology-based strategies to continue supporting older adults' physical activity (PA) at home (1,2). This presented an opportunity to better understand exercise professionals' uptake and perceived effectiveness of remote PA supports; and explore facilitators and barriers to future adoption of remote programming. Methods: This study used an explanatory, sequential mixed-methods design involving a cross-sectional online survey and semi-structured one-on-one interviews with exercise professionals (18+). The interview script was guided by the COM-B model of behaviour (3). Results: Fifty-one exercise professionals (38 females,  $M=36.3 \pm 12.3$  years) with an average of 9 years of working experience completed the online survey of which 86% provided remote PA support to older adults during the pandemic. A significant change was observed in the percent of remote exercise delivery, increasing from a median of 0% to 96%. The median transition time was two weeks and the median length of remote sessions was 45 minutes. PA support was primarily offered through hard copy material (63.6%) and real-time virtual programming (59.0%), with the latter being perceived as the most effective (88.5%). However, older adults' limited technical skills (82%) and access to technology (78%) were perceived as significant barriers, followed by older adults' lack of equipment, and decreased mental health (47.0%). The qualitative analysis is ongoing and will provide further insights. Implication: Our findings are crucial in developing practical strategies to enhance the adoption and effectiveness of remote PA supports when access to in-person programming is limited.

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**Name:** Satveer Dhillon

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Experiences of non-profit staff providing care for older adults during the COVID-19 pandemic: Key takeaways from Uganda and Ethiopia

**Abstract:** Background: Globally, older adults were more likely to be severely impacted by the COVID-19 pandemic. During the pandemic, non-profit organizations played essential roles in supporting those affected. Indeed, Reach One Touch One Ministries (ROTOM), a non-profit organization that supports older adults and their dependents in Uganda and Ethiopia, was central in providing COVID-19 care and support. However, with limited resources, non-profit organizations had to adopt innovative ways to manage the costs and demand for services, impacting service delivery during the COVID-19 pandemic. Objective: This study aims at documenting the strategies employed by ROTOM, the impact on older adults during the COVID-19 pandemic, and the recovery efforts implemented to build back. Methods: In-depth interviews were conducted with 28 staff and volunteers from ROTOM Uganda and Ethiopia. Results: Findings revealed several negative impacts of the pandemic and public health mandates on older adults. For example, due to the ban on public transportation, older adults could not purchase food, thereby increasing older adults' demands on ROTOM. ROTOM implemented several strategies to support older adults, including utilizing Village Health Teams. A number of strategies to help with organizational resilience were discussed, including implementing a reserve fund. Conclusion: The results underscored the impact the COVID-19 pandemic, and associated public health measures, had on older adults. Furthermore, the necessity of involving trusted community leaders during public health crises was highlighted. It is essential to implement innovative, targeted programs in communities. Non-profits impacted by the COVID-19 pandemic can use several strategies to build resilience.

**Name:** Shadini Dematagoda & Julia Spaniol

**Presentation Type:** Poster

**Presentation Title:** The Influence of Self-Serving and Altruistic Rewards on Response Bias in Recognition Memory among Younger and Older Adults

**Abstract:** Background: Despite declines with age, memory remains sensitive to motivational influences, such as reward, throughout the lifespan. Recent work suggests that prosocial motives are more influential in older than younger adults. However, few studies have examined the impact of prosocial reward, or reward earned for others, on memory. Objective: The current experiment investigates age differences in the relative valuation of self-serving and prosocial reward in a recognition memory paradigm. Specifically, we will examine the influence of self-serving vs. prosocial reward on response bias (the tendency to respond old or new to stimuli), an influential aspect of recognition memory performance. Methods: Younger and older adults will first view a series of to-be-remembered scenes associated with high (\$0.25) or low (\$0.01) reward. They will then complete a recognition memory test, where they will be rewarded accordingly for remembered stimuli. For half of the stimuli, rewards will be earned for themselves. For the remaining, rewards will be earned for charity. Participants will be informed of the recipient prior to the presentation of each stimulus. False-alarms (responding “old” to “new” stimuli) will be penalized (-\$0.13). Results: In line with prior literature, we expect more liberal responding (tendency to respond “old”) to high vs. low reward stimuli. In addition, we expect to observe more liberal responding for self-serving vs. prosocial reward stimuli and an interaction between age group and recipient, such that the effect of recipient is smaller for older vs. younger adults (i.e., less of a difference in older adults’ valuation of prosocial vs. self-serving reward). Conclusion: Results may reveal age-differences in the valuation of prosocial vs. self-serving reward, which can be leveraged to develop meaningful strategies to maintain memory in aging.

**Name:** Syntheya Leslie & Carrie McAiney

**Presentation Type:** Verbal (rapid fire)

**Presentation Title:** Perceptions of aging in place for people living with dementia and care partners in the Sri Lankan Tamil community

**Abstract:** Background: Aging in place (AIP) refers to aging in one's own home. AIP is a predictor of quality of life in older adults as it relates to personal identity, autonomy, and social inclusion.

Dementia, however, disrupts conventional AIP. A gap in the AIP literature concerns the lack of high-quality Canadian dementia research focusing exclusively on different ethnic and cultural groups, such as Sri Lankan Tamils. The objectives of this study are to explore the meaning of AIP for people living with dementia and care partners in the Sri Lankan Tamil community and how AIP can be supported in the Greater Toronto Area. Methods: We aim to interview 8-12 individuals living with dementia and care partners from the Sri Lankan Tamil community. Interviews will be conducted through Zoom or over the phone by a trained student researcher. Interviews will be digitally recorded, transcribed verbatim, and analyzed using thematic analysis. Preliminary Findings: To date, 6 semi-structured, open-ended interviews with Sri Lankan Tamils impacted by dementia have been conducted. Preliminary themes that have been identified related to the meaning of AIP include the following: filial piety, tradition, final request, and long-term care as a last resort. Preliminary themes that have been identified related to strategies that may enable AIP to occur include the following: spousal support, sacrifice, and devotion. The findings from this study will provide insights into the meaning of AIP and how AIP can be supported in the Sri Lankan Tamil community. This information can inform the development of strategies to create AIP services.



**Name:** Tehniyat Shahbaz & Vanessa Thai

**Presentation Type:** Verbal (rapid fire)

**Presentation Title:** Advancing approaches for virtual care in older adults: Evaluating the compliance and acceptance of a fully remote protocol using wearable sensors.

**Abstract:** Background

A fully remote study protocol can reduce burden and increase accessibility for participants. Wearable biosensors may be a practical approach for remote measurement that can capture patterns of daily health-related behaviour (e.g., activity, sleep, mobility) and symptoms of disease. Wearing multiple biosensors on different regions of the body increases accuracy in data collection and has been shown to be acceptable in a feasibility study of older adults and individuals with complex health conditions [1]. However, continuous, multi-sensor wear, over several days may result in reduced compliance and acceptance, particularly in a fully remote study.

Objective

To describe the compliance and acceptance of a fully remote study protocol involving multi-sensor wear to assess free-living behaviour among a large sample of older adults with and without neurodegenerative disease.

Methods

This multi-sensor approach involved wearing a wrist, ankle, and chest sensor for 24-h daily, for 7-10 days. Participants included 220 older adults with 55.6% diagnosed with a neurodegenerative disease (Alzheimer's disease, mild cognitive impairment, frontotemporal dementia, Parkinson's disease, ALS, or cerebrovascular disease). Compliance was measured as the percentage of wear time over the study period. Acceptability was determined based on participant feedback and reported willingness to wear the sensors for another 7-10 days.

Results

Compliance rate was high, with wear time greater than 90%. Participant acceptance was also high. Majority of participants

were interested in wearing sensors again (39.2% interested, 36.7% very interested).

### Conclusion

Continuous, 24/7, health monitoring using a remote multi-sensor approach is feasible based on high compliance and acceptance among older adults with and without neurodegenerative disease.

### References

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**Name:** Yasaman Eskandari & Feng Chang

**Presentation Type:** Verbal (standard length)

**Presentation Title:** Why so Serious?: The Impact of Serious Games on Pharmacy Students' Understanding and Empathy Toward the Experiences of Older Adults Living with Dementia

**Abstract:** The population of adults over the age of 65 in Canada, currently at around 7 million, is projected to reach 10 million by 2030. The increasing elderly population has and will continue to challenge the healthcare system's capacity. Rising to this challenge are healthcare professionals in primary care, among them pharmacists who can play a significant role in patient-centred care. Providing optimal care requires medical knowledge as well as an empathetic understanding of the patient's experience. Pharmacists are at the frontline of Canada's healthcare and with the rising prevalence of dementia, having a better understanding of the experiences of these patients is vital for holistic, patient-centred care. Students who may not have personal connections with dementia or who lack experience can benefit from safe and engaging learning opportunities to better their understanding of this condition, which in-turn can improve the quality of care. This project explores the use of serious games, developed with multi-stakeholder input, that place the perspective of older adults living with dementia at the centre stage to help students build empathy and understanding toward these experiences. The games include a first-person VR simulation, a choose-your-own-adventure patient simulator, and a board game. Pharmacy students play-tested the games and reflected on their experience in semi-structured interviews. Preliminary results suggest that learning about the experiences of people living with dementia through games elicits empathy and understanding toward these experiences and makes for a memorable and engaging learning opportunity.

**Name:** Yusra Aslam, Rishabh Sharma, Sadaf Faisal, Feng Chang, Cheryl Sadowski, Linda Lee, Manonita Roy, Carrie McAiney, & Tejal Patel \*Presented by Hawa Patel\*

**Presentation Type:** Poster

**Presentation Title:** Drug-related problems in persons with cognitive impairment and dementia in primary-care based memory clinics: Effectiveness of medication reviews.

**Abstract:** Background: Persons with cognitive impairment and dementia (PWCID) are at risk for a multitude of drug-related problems (DRP). Pharmacist-led medication reviews in older adults with dementia may decrease DRPs and improve medication adherence. Although there has been robust integration of pharmacists within the multidisciplinary memory clinics over the past dozen years, no such examination has been conducted in Canada. Objective(s): To collaboratively generate and prioritize the top 5 research questions about medication use and reviews with stakeholders including PWCID, care-partners, and healthcare professionals.

Methods: We conducted two virtual and one blended meetings. The virtual meetings provided context related to medication use and reviews through presentations. Following the model of integrated knowledge integration, 16 stakeholders including pharmacists (n=7), health care professionals (n=5) and care partners (n=4) assembled and collaboratively prioritized the research questions during the blended meeting using the nominal group technique. Participants were divided into small groups based on discipline. We asked participants, "What are the most relevant questions to ask about assessing medication use and reviews in PWCID?". Results: A total of 104 ideas or questions were generated and divided into 24 themes. Examples included medication safety, affordability, management processes and support, patient and family goals of care and effectiveness of medication reviews. The top three themes by group were prioritized, whilst the remaining two questions were based on the top-ranking themes between all groups. Conclusion: This study adopted a rapid and inclusive approach to identify priority

research questions for memory clinics regarding improving medication reviews.