

## Abstracts from the 2022 Annual Scientific Meeting of the Canadian Academy of Geriatric Psychiatry and Canadian Coalition for Seniors' Mental Health

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### CATEGORY: Workshop

#### The Canadian Coalition for Seniors Mental Health (CCSMH)—The First 20 Years and Counting—Reflections and Future Directions

David Conn, Kiran Rabheru, Claire Checkland, Ken Le Clair, Keri-Leigh Cassidy, Dallas Seitz

**Background:** The Canadian Coalition for Seniors Mental Health (CCSMH) was established in 2002 following a large national meeting that focused primarily on how to improve mental health in long-term care homes. There was a consensus that a Canadian Coalition of relevant stakeholders that focused on all aspects of the mental health of older adults could make a difference through education, research and advocacy.

**Methods:** A Steering Committee was formed, made up of representatives from 12 national organizations, including professional associations and groups representing older adults. The Coalition developed as a project of CAGP although it quickly created a separate identity as an interprofessional organization.

**Results:** The Coalition has been successful at obtaining grants from a number of funding agencies including Health Canada, the Public Health Agency of Canada (PHAC), CIHR, the Mental Health Commission of Canada, RBC Foundation, the Canadian Standards Association, the Centre for Aging and Brain Health Innovation and others. The Coalition has approximately 3,000 affiliate members. The Coalition's most significant projects and activities will be briefly outlined including the development of multiple National Clinical Guidelines and the creation of knowledge translation products. The ingredients for developing a successful coalition will be described along with the challenges of sustainability and having limited base funding.

**Conclusions:** We will engage the participants in a discussion about the future of the Coalition with the hope of identifying individuals who would like to contribute. Much work lies ahead. After the first 20 successful years the future beckons!

### CATEGORY: Symposium

#### The Use and Effects of Technology-Based Approaches in Geriatric Care

**Summary:** In this symposium, we will discuss the rise in the application of technology and AI-based tools and interventions including telepsychiatry, wearable technology, and artificial intelligence (AI) based solutions. We will present results from selected projects including 1) a telehealth program for isolated seniors; 2) a randomized controlled trial (RCT) of an 8-week Zoom Chair Yoga Program for seniors with dementia/MCI and caregivers; 3) a randomized controlled trial (RCT) of a VR meditation intervention for stressed older adults; 4) a novel passive sensing device supported by artificial intelligence (the Emerald Device<sup>®</sup>) to detect AD-related movement-based behavioral phenomena; 5) a literature review and policy analysis to present the latest framework for ideal artificial intelligence design, development, and assessment. We will also discuss guidelines and recommendations describing minimum requirements for reporting artificial intelligence algorithms that will ensure maximum potential benefits to patients, clinicians, and investigators.

### CATEGORY: Individual Abstract—Symposium

#### Technology-Enabled Interventions to Improve Mental Health Among Older Adults

Soham Rej

**Background:** Covid-19 further isolated older adults, increasing stress, loneliness and depression. Several different digital interventions were designed for the remote delivery of mindfulness-based programs (zoom chair yoga, telehealth intervention program, virtual reality) to evaluate their effects on mental health in older adults.

**Methods:** To evaluate the effects of a: 1) telehealth program for isolated seniors; 2) randomized controlled trial (RCT) of

an 8-week Zoom Chair Yoga Program vs waitlist control for seniors with dementia/MCI and caregivers; 3) randomized controlled trial (RCT) of a 4-week, twice weekly, VR meditation intervention for stressed seniors.

**Results:** Despite the ongoing pandemic related stressors, the telehealth and chair yoga studies found no significant ( $\geq 0.099$ , and  $\geq 0.054$ , respectively) increase in stress and anxiety scores, however, the telehealth program showed a downward trend in scores (mean change in PSS score = -0.58, SD = 6.66, mean change in PHQ-9 score = -0.85, SD = 4.48, mean change in GAD-7 = -0.14, SD = 4.82), while the chair yoga program recorded significant increase in depression scores and caregiver burden in the intervention arm, qualitative assessments are being conducted. Furthermore, in the telehealth intervention, the subgroup with higher baseline depression scores (PHQ-910), had significantly lower ( $p=0.003$ , CI [-3.719, -0.827]) depression scores at 8 weeks (mean change score = -2.27, SD = 4.76).

**Conclusions:** Technology-based mindfulness interventions and regular social support may be an accessible, safe, and scalable modality to improve/stabilize depression, stress, and/or anxiety symptoms.

### CATEGORY: Individual Abstract—Symposium

#### Monitoring Behaviors of Dementia Patients Using Passive Environmental Sensing Approaches

*Ipsit Vahia*

**Background:** The severity of behavioral and psychotic symptoms in people suffering from Alzheimer's Disease and related diseases (ADRD) correlate to disease stage and disease progression. In an effort to track these changes, which can vary greatly between patients, wearable technology has been introduced to bridge the gap between current disease state and predicted symptoms. Currently available wearable technologies emphasize the importance of longitudinal data collection to enhance and predict disease symptoms, however they are generally impractical for older adults suffering from cognitive impairments. The proper use and implementation of these wearable devices tends to land on the caregiver, increasing caregiver strain burden and potentially leading to worse health outcomes. The lack of direct accessibility of these technologies for this population does not negate their importance of tracking behavioral phenotypes to monitor disease progression. Nearly 90% of people suffering from Alzheimer's Disease will develop AD-related behavioral symptoms such as agitation or pacing. The ability to detect changes in movement patterns among this population is a novel way to monitor the effectiveness of disease intervention as well as disease stage and disease progression.

**Methods:** In previous studies, we have shown that the use of a novel passive sensing device supported by artificial intelligence (the Emerald Device) can detect AD-related

movement based behavioral phenomena. This device allows for movement detection in real-time with a limited need for direct in-person supervision, alleviating strain on caregivers.

**Results:** Contactless monitoring of a patient's daily movements reflects a unique and novel advancement towards individualized care for ADRD across the lifespan.

**Conclusions:** Contactless monitoring has the potential to contribute to the longitudinal tracking and treatment for other diseases, paving the way for digitized care.

### CATEGORY: Individual Abstract—Symposium

#### AI-driven Solutions in Clinical Practice (or Lack Thereof)

*Pascal Fallavollita*

**Background:** Currently, health care functions at sub-optimal productivity levels in North America. The demand for care is rapidly growing and combined with the recent pandemic has created a large backlog in hospital care and long-term care, with budgets increasingly difficult to control, and regulations becoming ever more uncertain and complex. This situation is not sustainable and becoming increasingly challenging in the advent of bundle care payments. New artificial intelligence (AI) paradigms addressing efficiency must be explored and implemented.

**Methods:** Literature Review and Policy Analysis were conducted.

**Results:** The latest framework for ideal artificial intelligence design, development, and assessment is presented, which includes several desiderata. Additionally, the WHO has recently published guidance on the ethics and governance of AI for health. The guidance presents multiple consensus principles and a series of recommendations.

**Conclusions:** Strict guidelines and recommendations describing minimum requirements for reporting artificial intelligence algorithms will ensure maximum potential benefits to patients, clinicians, and investigators.

### CATEGORY: Oral Presentation

#### Design, Development, and Implementation of a Substance Use Disorders Asynchronous Online Course to Complement Competency-Based Postgraduate Training of Geriatric Psychiatry Sub-Specialty Residents

*Catherine Hickey, Terry Chisholm, Eslinger Mandy, Ashok Krishnamoorthy, Johnathan Bertram, Anthony Levinson*

**Background:** It can be challenging for a single institution to develop a comprehensive online course. Our objective was to collaborate on developing and implementing asynchronous e-learning to complement competency-based training in substance use disorders in older adults.

**Methods:** Five e-modules (Introduction, Benzodiazepines, Opioids, Alcohol, and Cannabis) were designed, based on the Canadian Coalition for Seniors; Mental Health Substance Use and Addiction Project guidelines. Previous instructional design guidelines were followed to achieve consistency in the design and development of modules and alignment with best practices in evidence-based e-learning. The modules were mapped to relevant entrustable professional activities.

**Results:** The five modules have been developed and are in final review by both content experts and instructional designers. They will be aggregated with similar modules from Dalhousie and McMaster within the same learning management system to facilitate a single point of access and standardized evaluation surveys. Residents from the 11 programs that have enrolled in the Canadian Geriatric Psychiatry Online Program will pilot test the new modules. Post-course quizzes and surveys will be used to evaluate the modules.

**Conclusions:** This course will help to meet the educational needs of residents and complement training in substance use disorders for older adults. Any sub-specialty resident or program director across the country may request the program through the geripsych website which is accessed at: geripsych.machealth.ca. Blended teaching using asynchronous modules is an efficient and effective way to complement geriatric psychiatry training. Pooling online resources between programs can improve the resident training experience.

## CATEGORY: Oral Presentation

### Operationalizing Subspecialty Training in the Competence by Design Model: A Case Study of Lived Experiences

*Maria Hussain, Melissa Andrew, Heather Braund, Nancy Dalgarno, Laura Marcotte, Peggy Dejong, Noah Letofsky, Xiaolin Xu*

**Background:** With the transition and implementation of competency based medical education (CBME) and the Royal College framework Competence by Design (CBD), residency training programs must align theoretical constructs to practice. Some unique factors associated with subspecialty programs are highly subspecialized Entrustable Professional Activities (EPAs) and a short period to operationalize the 4-stage CBD model. Exploring lived experiences of leaders within subspecialty programs will help bridge the theory practice gap. This study describes the lived experiences of leaders in implementing CBD in subspecialty programs at Queen's University.

**Methods:** This grounded theory study recruited program directors, CBME Leads, educational consultants, and resident leads across subspecialty programs. A total of 12 participants completed semi-structured interviews which were audio recorded and transcribed verbatim. The data were analyzed using open, axial, and selective coding.

**Results:** Programs had varied approaches in CBD development and emphasized the need for on-going refinement. Common challenges included assessment completion, administrative burden, software use, and developing the CBD stages. Strengths included frequent assessment, formal documentation of performance, and enhanced accountability. One challenge unique to subspecialty training in Psychiatry was the overlap year, where PGY-5 residents are enrolled officially in a Psychiatry program while completing subspecialty requirements. Participants shared recommendations which included faculty development, and iterative process in developing EPAs, and flexibility with timelines and stages.

**Conclusions:** The lived experiences of subspecialty leaders as they helped transition programs to CBME demonstrate a need for aligning and operationalizing subspecialty programs to the CBD model.

## CATEGORY: ORAL PRESENTATION

### Creating a Comprehensive Addictions Curriculum in a Geriatric Psychiatry Subspecialty Training Program

*Christopher Kitamura, Olga Malinowska, Marilyn White-Campbell, Jessica Cuppage, David Conn*

**Background:** Substance use disorders (SUDs) in older adults, arising from both prescription medications and recreational substances, are often underdiagnosed and undertreated. Barriers to detection of SUDs in this age group include non-specific signs, ageism, lack of research and age-appropriate screening tools, and limited education to health care practitioners and trainees. While Canadian treatment guidelines have recently emerged to aid assessment and management of SUDs in older adults, formal training on this subject in residency programs is minimal.

**Methods:** We created a first-of-its-kind comprehensive geriatric addictions curriculum in a geriatric psychiatry subspecialty training program in Canada. Informed by a needs assessment, and powered by a multidisciplinary expert faculty, we created a curriculum using a combination of didactic and case-based learning. Course content includes common substances of misuse, concurrent disorders, medical withdrawal, pharmacologic and non-pharmacologic treatments, and capacity and legal issues. We will conduct pre- and post-intervention assessments of knowledge, skills, and confidence.

**Results:** Feedback from the September 2022 inaugural curriculum will be presented here.

**Conclusions:** Informed by feedback, we will review planned revisions to the curriculum. We will discuss our plans to liaise with other training programs in geriatric psychiatry, and related fields (e.g. family medicine—care of the elderly, geriatric medicine), to build educational capacity. We will review possible next steps, including asynchronous online learning modules and virtual communities of practice.

**CATEGORY: Symposium****The Other Capacities: The Role of the Medical Expert in Medicolegal Capacity Assessments**

**Symposium Summary:** A rapidly aging population with a high prevalence of cognitive and psychiatric disorders is about to make the greatest wealth transfer in history to a younger generation with increasingly complex family structures. As a result, it is anticipated that the number of challenges to Wills and related estate documents will increase significantly. Similar factors are driving an increase in predatory marriages, a form of financial abuse in which marriage serves a means for gaining control of a spouse's finances and/or receiving that person's property when they die. There is an increasing need for medical expertise in these areas. Yet, the assessment of these capacities may be unfamiliar to many healthcare practitioners. Even when not formally assessing capacity, practitioners may have clinical or ethical responsibilities and their medical records often become evidence in court challenges. In this symposium, we will present a case-based discussion of the role of the medical expert and/or healthcare providers in medicolegal capacities that may be encountered in geriatric psychiatry practice including testamentary capacity and capacity to marry. The symposium will review key principles of capacity assessment relevant to these domains and highlight the important role healthcare practitioners can play in both protecting vulnerable patients and supporting the autonomy of capable individuals.

**CATEGORY: Individual Abstract—Symposium****Principles of Medicolegal Capacity Assessment**

*Carole Cohen*

**Background:** In this session, we will review important considerations when assessing capacity in general and provide an introduction to the approach to the assessment of medicolegal capacity assessments. Since medical records are often entered as evidence in court challenges, we will also discuss key aspects of thorough documentation, which can be helpful in defending or overturning Wills or marriages.

**Methods:** N/A

**Results:** N/A

**Conclusions:** N/A

**CATEGORY: Individual Abstract—Symposium****Testamentary Capacity: The Role of the Medical Expert**

*Ken Shulman*

**Background:** The ultimate determination of testamentary capacity is a legal one, but medical experts can help the courts achieve the most informed legal decision by providing relevant information on clinical issues that may impact the criteria for testamentary capacity. There is a severe shortage of qualified medical experts who are able and willing to help the courts make their determinations in cases of disputed capacity and allegations of undue influence. In this session, we will outline the role and limitations of the medical expert in the legal process relevant to testamentary capacity challenges. We will describe the requisites of testamentary capacity based on leading legal cases and an updated test reflecting modern day circumstances. The concept of undue influence will be discussed, with a focus on patient, situation that may increase susceptibility to influence.

**Methods:** As above.

**Results:** As above.

**Conclusions:** n/a

**CATEGORY: Individual Abstract—Symposium****Capacity to Marry: What Physicians Need to Know**

*Julia Kirkham*

**Background:** Predatory marriage refers to marriage for the purpose of gaining control of a spouse's finances and/or receiving that person's property when they die. The victim is an individual with impaired capacity to make a choice to marry, usually as a result of a cognitive or mental health disorder. While the term predatory marriage is not commonplace in medical settings, many clinicians will have encountered such a scenario in their practice. Legal practitioners suspect that the prevalence is increasing in Canada. Despite many implications for clinical practice, the topic has received very little attention in the medical literature and there is a lack of available guidance for physicians. In this session, we will provide an overview of predatory marriage and individual, situational, and relationship factors that increase risk for or likelihood of predatory marriage. We will discuss inconsistencies in the legal test for capacity to consent to marriage, and recent controversies in Canadian law that are relevant to healthcare practitioners working with vulnerable populations.

**Methods:** N/A

**Results:** N/A

**Conclusions:** As above.

**CATEGORY: Workshop****Wearable Technologies and Persons with Dementia: Balancing Ethical Considerations**

*Lynn Haslam-Larmer, Andria Bianchi, Kristine Newman, Alisa Grigorovich, Josephine McMurray, Andrea Iaboni*

**Background:** There is little research available on the ethical considerations and implications of wearable technologies in dementia care settings. This workshop will explore benefits and vulnerabilities associated with wearable devices in this type of environment, and help de-risk decision-making on their use.

**Methods:** During this interactive workshop, participants will be provided with knowledge on the use of wearable technologies for older adults with dementia in residential care settings. Using case studies, participants will engage in guided reflections on complex ethical questions, such as: If a person with dementia cannot consent to the use of wearable technologies, should their assent matter? Can people with dementia expect physical privacy? How should care providers respond to residents; dissent (e.g., a resident who consistently removes a wearable device)? Under what circumstances is it ethically defensible for resident safety to eclipse privacy or personhood? When is a shift in resources from human care to technology purchase, installation and maintenance justified? How do we address inequities using this technology? Workshop participants will be encouraged to think about these ethically complex questions through different lenses, such as those of an administrator, clinician, family member, and resident.

**Results:** By the end of the workshop, participants will understand ethical considerations related to wearable technologies within dementia care settings and learn strategies to help address ethical usage.

**Conclusions:** The use of wearable technologies for people with dementia within residential care settings is increasingly prevalent. It's essential that we understand and think critically about ethical issues to implement technologies in an ethically defensible way.

**CATEGORY: Workshop****Elder Abuse and Seniors Mental Health Outreach: What Do We Do Now?**

*Kim Schryburt-Brown, Roxanne Lamothe, Kali Greene, Tricia Dominik*

**Background:** With growth in our inter-professional team, opportunities in the Seniors Mental Health Outreach (SMHO) response to elder abuse were identified. In-depth investigation into the issue found there are no guidelines for specialized geriatric psychiatry teams to use when intervening with

community dwelling clients at risk of or experiencing elder abuse. Since people referred to SMHO are at higher risk of elder abuse (NICE, 2015), we struck a working group to reflect on our current practices and develop resources to ensure we are identifying abuse and providing the best interventions and outcomes possible.

**Methods:** SMHO inter-professional team members and a person with lived experience worked together using quality improvement methodology to identify the issue, root causes, implement solutions and evaluate outcomes. A literature review identified multiple existing resources, none of which guide a specialized SMHO team's actions.

**Results:** Existing tools were adapted into a resource guide which maximizes the specialized knowledge and abilities of SMHO teams. The resource guide gives specific direction to staff, differentiates issues that fall under the various legislation governing decision making and capacity, and provides tools to support screening, assessing and intervening in situations of elder abuse. Implementation was evaluated by comparing the incidence of elder abuse in our program as compared to the general population, as well as use of formal tools and team huddles.

**Conclusions:** SMHO teams can use their unique expertise to provide screening, in-depth assessment and intervention to people at risk of and experiencing elder abuse.

**CATEGORY: Oral Presentation****The Baycrest Quick-Response Caregiver Tool™ for Responsive Behaviours in Long Term Care: Background and Methods of a Mixed Methods Study**

*Robert Madan, Marsha Natadiria, Anna Berall, Anna Santiago, Kenneth Schwartz*

**Background:** Neuropsychiatric symptoms of dementia (NPS) are common and result in poor outcomes such as caregiver burnout, poor quality of life, and elevated health care costs. The Baycrest Quick-Response Caregiver Tool™ assists the caregiver in real time as the NPS are occurring. A mixed methods feasibility study in family caregivers found favorable results (accepted for publication). Scaling up this tool for long term care (LTC) staff can potentially benefit residents living with dementia. The goal of this study is to evaluate the feasibility and utility of this tool in LTC.

**Methods:** New videos of situations in LTC will be developed, coupled with an update of the narrative section of the website. Point of care staff will be recruited from 3-5 LTC homes. Participants will complete the online training, and surveys pre/post and at 4 weeks post-intervention. A focus group of a sample of 20 participants will be conducted to further acquire qualitative data.

**Results:** Measures of self-awareness, empathy, confidence, competence, and feasibility will be used pre/post and at 4 weeks. Participant demographics and survey responses will be summarized through descriptive statistics. Responses to open-ended questions will be transcribed and line-by-line coding will be conducted to categorize the data into prevalent themes by two coders.

**Conclusions:** It is predicted that the Baycrest Quick-Response Caregiver Tool new online LTC training module will be found to be feasible and useful, and that the training will positively impact self-awareness, empathy, confidence, and competence in LTC staff.

### CATEGORY: Oral Presentation

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#### **Collaborative Transition Planning—Creating a Pathway to LTC for Adults Living With Serious Mental Illness (SMI)**

*Daria Nedilski, Morgan Blizzard, Miranda Keay, Patricia Potter-Bereznick, Lisa Van Bussel*

**Background:** Adults with SMI often experience stigma and complex health comorbidities at a younger age thus requiring integrated care. Prior to this project there was no standardized approach to transitioning these adults into LTC. Models of care differed significantly between adult and geriatric mental health programs. This resulted in long-term care application rejections and failed discharges. The geriatric Discharge Liaison Team (DLT) has expertise in supporting older adults with SMI within LTC but had no established role within the adult population. The goal of the project was to reduce failed discharges to LTC by designing a standardized process to support successful transitions from a tertiary mental health hospital into LTC.

**Methods:** Initial steps included identifying prior processes for referrals and patient discharges. Having identified that adult units had limited knowledge of the LTC environment, DLT provided the necessary education for acceptance to LTC. Barriers to successful discharges were reviewed and specific criteria for referrals were developed inclusive of referral pathways.

**Results:** A referral algorithm was created to describe key points in discharge process. This algorithm provided three streams of support DLT could provide for adult transitions: consultative, shared care, and full transfer to DLT. Utilizing this algorithm, there was a notable decrease in failed discharges and increase in LTC application acceptances.

**Conclusions:** As this is an ongoing pilot project, data continues to be gathered. The process continues to evolve and expand. The focus of this project has shifted from one of process review to that of a quality improvement initiative.

### CATEGORY: Oral Presentation

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#### **Changing Hearts and Minds in Acute Care: a Behavioural Supports Capacity Building Package**

*Debbie Hewitt Colborne, Susie Choi, Natasha Fortin, Terri Glover, Melissa Laroche, Rebekah Larter, Nancy Lesiuk, Jillian McConnell*

**Background:** The Behavioural Supports in Acute Care: Current Practices and Opportunities for Growth Survey Report (Behavioural Supports Ontario Acute Care Collaborative, 2021) highlighted the need for additional behavioural health capacity building in Ontario's acute care hospitals. In response, the Behavioural Supports Ontario (BSO) Acute Care Collaborative committed to developing a behavioural supports capacity building package.

**Methods:** Guided by the Knowledge to Practice Process Framework (Ryan et al., 2013), the Collaborative developed knowledge transfer and translation tools to be used by behavioural support champions and educators within acute care who can further support implementation. Three key themes were identified: (1) the importance of personhood, (2) all behaviour has meaning, and (3) your approach matters. An artist was commissioned to illustrate a fictional patient to elicit empathy through a human story. This fictional patient was used throughout the capacity building package to create a relatable case study.

**Results:** In the spring of 2022, a capacity building package that included three posters and three presentation slide decks was made publically available. Posters allowed for a visual representation of evidenced informed practices, while the slide decks with scripted facilitation notes built upon key messages in the posters and prompted reflective practice along with practical application strategies. Brief surveys using QR codes were used as a feedback mechanism to evaluate the applicability and impact of the educational resources.

**Conclusions:** This novel behavioural supports capacity building package humanistically engages acute care team members to enhance their practice with older adults experiencing responsive behaviours/personal expressions.

### CATEGORY: Workshop

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#### **How to Implement Person-Centered Infection Prevention and Control Measures in Long-Term Care**

*AnneMarie Levy, Andrea Iaboni, Josephine McMurray, Alisa Grigorovich, Kaitlyn Ranft, Hannah Quirt, Katia Engell, Kristina Kokorelias, Arlene Astell, Mario Tsokas, Kevin Rodrigues, Alastair Flint*

**Background:** The COVID-19 pandemic has led to the prolonged use of strict infection prevention and control measures

in long term care (LTC) homes to protect vulnerable residents. Every day, LTC staff make decisions related to isolation of residents based on public health directives while also balancing their negative impact on residents quality of life.

**Methods:** This workshop will introduce participants to the Dementia Isolation Toolkit (DIT) and provide knowledge that will help balance decisions related to infection prevention and control measures with principles of person-centered care, to improve participants' ability to provide compassionate, and effective isolation for people living with dementia in LTC.

**Results:** During the workshop, participants will analyze research-based case studies using components of the DIT (e.g., person-centered care and isolation decision making worksheets) and formulate care plans that are transparent, adaptive, and informed by the needs of both the residents and their LTC community. Participants will also gain insights into the facilitators and barriers to implementing person-centered isolation care strategies in LTC settings and build skills to enhance successful implementation of the DIT in health care settings (by way of demonstration, using the DIT Huddle tool).

**Conclusions:** This workshop addresses the need for practical guidance on how to implement and apply best practices in person-centered isolation care for residents living with dementia in LTC and improve upon the inequities produced by the COVID-19 pandemic that have disproportionately impacted this vulnerable population.

## CATEGORY: Symposium

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### Proposed Medical-Legal Innovations for Capacity Evaluation Related to Activating the Supported/ Substitute Decision-Making Processes

**Summary:** The Capacity Clinic and CURA Compliance are associated high tech medical-legal start-up businesses that seek to develop medical-legal innovations to improve the screening procedure to reliably trigger the need for capacity evaluation, to facilitate improved capacity evaluation for any medical-legal task, and to provide novel tools to facilitate supported/substitute decision making process. The novel technologies to be introduced in this symposium include the Vulnerable Person Screener (VPS), the Power of Attorney for Information Sharing (POA-IS), and the Power of Attorney Registry (POA-Registry) that will improve the fiduciary role of clinicians, lawyers and financial advisors dealing with vulnerable persons. These technological assets will be transformational for the disciplines of medicine, law, and financial services by 1) providing a sound conceptual foundation and consistent screening procedure for detecting vulnerability to incapacity and undue influence (the VPS); 2) by providing a supported decision-making agreement (the POA-IS) that documents an arrangement in which an adult chooses one or more trusted individuals—called supporters—to assist

with the steps of decision-making, including gathering and understanding information, reviewing available options, and communicating the person's own decision that can be applied across the spectrum of medical, legal, and financial decision-making or alternatively restricted to any one of the three; and 3) by providing a virtual, unlimited, privacy protected, electronic registry for validated POA documents (the POA Registry) that would be accessible by the persons creating these documents, their attorneys for personal care and property, their supporters for information sharing, clinicians, lawyers and financial advisors with permission.

## CATEGORY: Individual Abstract—Symposium

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### Design and Implementation of the Vulnerable Person Screener for Risk of Incapacity and Susceptibility to Undue Influence

*Richard Shulman, Nathan Spaling, M. Jasmine Sweatman, Arlin Pachet*

**Background:** Assessing a person's decision-making capacity is fundamental to any fiduciary relationship in medicine, law, and finance. To decide whether a person should activate supported or substitute decision-making procedures requires a sound conceptual foundation and consistent screening methods when interacting with seniors in-person and/or virtually.

**Methods:** A multi-disciplinary team of lawyers, geriatric psychiatrist, neuropsychologist, and systems-design engineer developed the Vulnerable Person Screener (VPS) software application that can be used in-person or virtually to assist clinicians, lawyers, financial advisors and others to detect potential risk of vulnerabilities for decision-making incapacity and/or undue influence for any medical, legal, or financial decision-making task and in Canada.

**Results:** The VPS does not embark the user of the software into the task of capacity evaluation. The VPS software provides a means for screening for "red flags"; suggesting risk for susceptibility to incapacity and/or undue influence that in the absence of would reassure the user to proceed with the person's autonomous decision-making; and in the presence of would promote supported or substitute decision-making and/or referral for formal capacity evaluation. The VPS supports the standardized collection of information to improve the validity and reliability of capacity screening.

**Conclusions:** The VPS promotes legal, ethical, and moral responsibilities to understanding seniors by emphasizing capacity is a human rights issue in line with the Canadian ratification of the United Nations Convention on the Rights of Persons with Disabilities which states that people with disabilities have equal rights to autonomy, dignity, and that supported/substitute decision-making should be free of undue influence and abuse.

**CATEGORY: Individual Abstract—Symposium****Improving Sharing of Information and Supported Decision-Making**

*M. Jasmine Sweatman, Arlin Pachet, Richard Shulman, Nathan Spaling, Malcolm Maxwell*

**Background:** Decision-making is an essential human right confirmed by the United Nations Convention on the Rights of Persons with Disabilities ratified by Canada. Yet, the right of vulnerable seniors to make their own decisions has often been supplanted by a substitute decision-maker who makes decisions based on their determination of the person's best interest, rather than perhaps the person's own values and preferences. Ontario legislation is supposedly designed to limit substitute decision-making to where there are no other suitable alternatives. However, Ontario lacks a formal supported decision-making process; an alternative to substitute decision-making where people still make their own decisions, while receiving the help they need to do so. Supported Decision-Making retains the individual as the primary decision maker, while recognizing that the individual may need assistance in making and communicating a decision.

**Methods:** We reviewed processes for supported decision-making available in Canada (Alberta and Yukon) and recommendations for public policy in the United States and Australia and the applicable Ontario legislation in order to develop the proposed POA-IS.

**Results:** We propose for Ontario, the Power of Attorney for Information Sharing (POA-IS), a supported decision-making agreement that documents an arrangement in which an adult chooses one or more trusted individuals - called supporters; to assist with the steps of decision-making, including gathering and understanding information including within the circle of care, reviewing available options, and communicating the person's own decision.

**Conclusions:** The POA-IS could be applied across the spectrum of medical, legal, and financial decision-making, or alternatively restricted to any one of the three.

**CATEGORY: Individual Abstract—Symposium****Establishing the Canadian Electronic Power of Attorney Registry**

*Helen Chen, Nathan Spaling, M. Jasmine Sweatman, Sujjan Subendran, Kathleen Lavoie, Ying Zhu*

**Background:** The health, financial and legal industries have differing risk tolerance associated with appointing substitute-decision-makers. The differing risks range from informal verbal authorizations; to designated trusted contacts; to appointed substitute-decision-makers via Powers of Attorney. However, who is screening for undue influence and incapacity

prior to these appointments being made without formalities in place—similar to the VPS or the POA-IS? Pandemic has introduced a rare opportunity to exchange critical information such as Powers of Attorney electronically like never before.

**Methods:** We examined each of the Provincial/Territorial requirements for Powers of Attorney (or their equivalent Provincial document) and digitized the critical information. We examined the workflow of health care organizations, financial institutions, law firms and capacity evaluators to understand their practices and procedures.

**Results:** The processes of creating and activating a Power of Attorney will be discussed, along with the relevant privacy and security considerations when exchanging this personal information electronically in a more timely, accessible and reliable manner among its users.

**Conclusions:** We have created a web-based electronic Power of Attorney Registry and this symposium talk will discuss how capacity screening (and evaluation when needed) will play a critical role in making this process, dynamic, more reliable and accessible for the health, financial and legal industries across Canada.

**CATEGORY: Oral Presentation****Medical Assistance in Dying (MAID) for Persons Suffering with Solely Mental Illness: a Survey of Mental Health Practitioners at a Tertiary Mental Health Hospital**

*Robyn Waxman, Kelly Delaney, Frank Wagner*

**Background:** In March of 2023, the eligibility for access to MAID will expand to those with solely a mental illness. Currently, only persons with physical illnesses/disabilities qualify. This significant change to the legislation will have a major impact on the population we serve as mental health practitioners. Furthermore, it behooves us as care providers to learn about how to properly educate and evaluate our patients who may enquire about this service. The goal of our survey is to learn about the viewpoints our health care providers can share with respect to this upcoming expansion of the MAID criteria. Ontario Shores' practitioners have a wealth of expertise and experience working with patients with mental health conditions. Similar to when previous revisions, amendments, and regulations have been made to the legislation, safeguards and protocols are developed to protect vulnerable populations. It will be interesting to learn about the Ontario Shores medical staff's perspective on this subject and ideas about potential safeguards.

**Methods:** A survey on survey monkey with 9 questions with both quantitative and qualitative measurements will be distributed by email to the health care providers at Ontario Shores including all psychiatrists, nurse practitioners and family physicians. These are the providers who are medico-legally supported to provide MAID in the community.



**Results:** The results are currently in progress. The primary outcome is to learn how many practitioners believe MAID should be available for persons with solely a mental illness and would be willing to participate in the provision of MAID for this population.

**Conclusions:** The results of this survey will inform whether there is support and the capacity for the provision of MAID at Ontario Shores for this population. The conduction of this survey will bring awareness and education to our staff.

## CATEGORY: Oral Presentation

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### L'âgisme, Parlons-En

Anabel Lauzière

**Background:** La discrimination basée sur l'âge n'est pas un phénomène nouveau. Le terme âgisme n'est toutefois apparu qu'en 1969. Concept encore méconnu, la pandémie COVID-19 a fait en sorte de le révéler au grand public.

**Methods:** Une revue de la littérature sur ce concept assez nouveau s'attardera à définir l'âgisme, ses spécificités et ses différentes dimensions, élaborer sur les impacts et déterminer quelques pistes d'intervention.

**Results:** L'âgisme est un phénomène planétaire malgré certaines variations culturelles. Plusieurs théories tentent d'en expliquer ses origines. Il peut être interpersonnel ou institutionnel, implicite ou explicite. L'âgisme internalisé est également lourd de conséquences. Les impacts, bien qu'ils nécessitent d'être mieux documentés, sont importants et multidimensionnels. Davantage d'interventions nécessitent d'être développées et étudiées. Les interventions éducatives et les contacts intergénérationnels se sont toutefois montrées efficaces.

**Conclusions:** Les participants à cette présentation pourront en apprendre davantage sur le large concept qu'est l'âgisme et seront également invités à mener une réflexion personnelle sur leurs propres stéréotypes ainsi que ceux véhiculés par leurs institutions.

## CATEGORY: Oral Presentation

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### “First, Do No Harm”: Considering a Dignity of Risk for Older Adults with Cognitive Impairment

Andria Bianchi

**Background:** From a clinical perspective, it is often ethical to prevent older adults—or any patient—from experiencing harm. This presentation will examine the ethics of harm prevention in light of what it may mean to treat people with dignity. The concept of “a dignity of risk” will be used to achieve this aim.

**Methods:** During this session, the presenter will introduce two frequently cited bioethical concepts, namely, non-maleficance (do not cause harm) and beneficence (provide benefit/prevent harm). These principles typically support the reduction of risk-taking behaviour, since taking risks may lead to harm. Although harm prevention deserves significant consideration, perhaps especially when working with older adults with cognitive impairment, it ought to be balanced alongside the value of dignity. The “dignity of risk” is a concept used to describe how risk-taking may contribute to dignity. Consequently, the consistent prioritization of harm prevention and risk reduction may inadvertently contribute to a loss of dignity. This session will consider circumstances under which it may be ethical not to prevent risk-taking behaviours for older adults with cognitive impairment.

**Results:** By the end of this session, attendees will be able to employ the concept of a “dignity of risk” in circumstances where a delicate balance between preventing harm and enabling dignity is required.

**Conclusions:** We should prevent older adults with cognitive impairment from harm and empower them to live with dignity. In circumstances where risk-taking behaviours may contribute to dignity, it will be important to acknowledge the “dignity of risk; as relevant.

## CATEGORY: Oral Presentation

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### Retreatment with Theta Burst Stimulation (TBS) for Late Life Depression (LLD): A Retrospective Chart Review

Hyewon Helen Lee, Alisson Trevizol, Benoit Mulsant, Tarek K Rajji, Zafiris Daskalakis, Daniel Blumberger

**Background:** TBS is a newer form of rTMS which has demonstrated similar efficacy, safety and tolerability profiles as the more traditional 10 Hz rTMS in adults aged 18-65 years. However, it has been observed that with patients may relapse in 6-12 month period following a course of rTMS treatment.

**Methods:** We conducted a retrospective chart review of 40 older adults with unipolar MDD that received retreatment rTMS using TBS. All participants previously completed at least 1 full course of rTMS. Outcome measures used for effectiveness were the 16-item Quick Inventory of Depressive Symptomatology (QIDS-SR16) and Patient Health Questionnaire-9 (PHQ-9).

**Results:** Retreatment with TBS was well tolerated, with 35 of 40 patients completing the full course of treatment. Of 40 patients, 12 (30.0%) achieved response and 8 (20.0%) achieved remission. Response and remission rates were higher in those who previously responded to (OR = 2.40 vs. non-responders, 95% CI 0.50-11.52) or remitted with rTMS (OR = 3.83 vs.

non-remitters, 95% CI 0.73-20.0). In previous responders to rTMS using TBS, response rate with retreatment TBS was 66.7% (2/3). All 3 patients who previously did not respond to conventional bilateral DLPFC rTMS responded to retreatment with TBS.

**Conclusions:** Retreatment with TBS was well tolerated. Our findings suggest that retreatment with TBS is effective, with higher rate of response and remission in previous responders to rTMS, particularly if they were previous responders to TBS. Retreatment TBS may also be a therapeutic option for those who previously did not respond to conventional rTMS.

### CATEGORY: Oral Presentation

#### Association Between Lean Muscle Mass and Treatment-Resistant Late-Life Depression in The IRL-Grey Randomized Controlled Trial

Nicholas Ainsworth, Ram Brender, Neta Gotlieb, Haoyu Zhao, Daniel Blumberger, Jordan Karp, Eric Lenze, Ginger Nicol, Charles Reynolds, Wei Wang, Benoit Mulsant

**Background:** Frailty is a predictor of poor treatment outcome in late-life depression (LLD). Low lean muscle mass is a possible correlate of frailty which has been associated with poor LLD outcomes in some studies. However, this has not been evaluated as a predictor of illness severity or treatment outcome in treatment-resistant LLD (TR-LLD).

**Methods:** We analyzed data from a clinical trial of adults age 60+ with major depression who did not achieve remission with venlafaxine. We estimated lean muscle mass using dual-energy X-ray absorptiometry (DEXA) scans prior to and following randomized treatment with aripiprazole or placebo. We used multivariate regression models to estimate the influence of clinical and demographic factors, including baseline depression scores, on baseline lean muscle mass, and then to test whether lean muscle mass was predictive of treatment response.

**Results:** We analyzed 178 patients who met inclusion criteria. Prevalence of low lean muscle mass was 12.4%. Older age and female gender, but not depressive symptom severity, were independently predictive of lower lean muscle mass at baseline. Marital status, treatment group, and baseline depressive symptom severity were independently predictive of improvement of depressive symptoms in the randomized treatment phase, but baseline lean muscle mass was not.

**Conclusions:** As expected, older age and female gender predicted lower lean muscle mass in TR-LLD. However, contrary to previous studies in non-TR-LLD patients, lean muscle mass was not significantly associated with depressive illness severity or outcome. This suggests that TR-LLD patients may differ with respect to body composition compared with the LLD population as a whole.

### CATEGORY: Oral Presentation

#### Clinical Correlates of Late-Onset Versus Early-Onset Bipolar Disorder in a Global Sample of Older Adults

Paola Lavin, Lisa Eyler, Annemieke Dols, Gabriella Buck  
*co-first author, Martha Sajatovic*

**Background:** Late-onset bipolar disorder (LOBD) represents a significant subgroup of bipolar disorder (BD). However, knowledge for this group is mostly extrapolated from studies in participants with early/mixed age of illness onset, with limited sample sizes. In this global sample of older adults with BD (OABD: 50 years old) we aim to characterize the sociodemographic and clinical presentation of LOBD (40 years at BD onset) compared to early-onset BD (EOBD: 40 years at BD onset).

**Methods:** The Global Aging and Geriatric Experiments in Bipolar Disorder (GAGE-BD) consortium provided international data on 1,007 OABD. We compared LOBD versus EOBD on depression, mania, functionality, and physical comorbidities. Exploratory analyses were performed on participants with BD onset 50 years old.

**Results:** LOBD (n=390) did not differ from EOBD (n=617) participants on depression, mania, global functioning, nor employment status (p=0.05). LOBD was associated with higher endocrine comorbidities (OR = 1.48, [95%CI= 1.0,12.1], p=0.03). This difference did not remain significant when participants with BD onset 50 years old were analyzed.

**Conclusions:** LOBD might represent a similar clinical phenotype as classic EOBD with respect to core BD symptomatology, functionality, and comorbid physical conditions. There is a continued need for large-scale global collaboration to improve our understanding of BD across the lifespan.

### CATEGORY: Workshop

#### Anti-Racism, Anti-Oppression and its Intersection with Geriatric Psychiatry

Ilan Fischler

**Background:** Systemic racism and historical oppression impact the development, diagnosis and treatment of mental illness across the lifespan. The traditional medical model does not account for anti-racist and anti-oppression perspectives which lead to individuals from racialized communities experiencing poorer access to appropriate mental health care and inequitable clinical outcomes.

**Methods:** Modern definitions of anti-racism and anti-oppression will be discussed along with case examples relevant to the work of geriatric psychiatrists. A literature review will be performed to review the evidence regarding the impact that

racism has on the development, diagnosis, and treatment of mental illness. Particular attention will be paid to how racialized communities are disadvantaged with respect to the social determinants of health, using census and other publicly available data for Toronto, Ontario.

**Results:** Individuals from racialized communities are disadvantaged with respect to housing security, income, criminalization and education. Traditional mental health services are less acceptable and accessible and tend to be more coercive for individuals from racialized communities compared to white communities. Racism is thought to play a role in the etiology of a number of mental illnesses including schizophrenia.

**Conclusions:** Racism plays a role in the development, diagnosis and treatment of mental illness. Geriatric psychiatrists have an important role to play in understanding the impact of racism and oppression in the communities we serve, along with taking steps to incorporate anti-racism into our clinical work and advocacy.

### CATEGORY: Workshop

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#### Mastering Entrustable Professional Activities in Psychopharmacology in an Interprofessional Learning Environment: a Teaching and Assessment Workshop

*Sophiya Benjamin, Jessica Wasserman, Vanessa Thoo, Joanne M W Ho*

**Background:** Geriatric psychiatry is a complex subspecialty in psychiatry, which involves delivery of care to individuals with both mental and physical health diagnoses. Often, the patients referred to geriatric psychiatrists are also on many medications, at increased risk of side effects as well as medication interactions, which are best approached in an interprofessional approach. Medical trainees developing geriatric psychiatry competencies could benefit from learning in interprofessional environments where they collaborate and learn from different specialists with a wider scope of knowledge and practice.

**Methods:** This workshop will present experiences in teaching postgraduate medical trainees in an interprofessional team and highlight some of the facilitators and barriers to learning in this milieu. Workshop participants will engage in a case-based exercise to map current Royal College EPAs in psychopharmacology and documentation for trainees at various levels of training, in an interdisciplinary geriatric service.

**Results:** By the end of the workshop, participants will take home ideas to involve specialists and team members outside geriatric psychiatry who can facilitate the mastering of competencies in this field to meet the educational needs of learners at various stages of training.

**Conclusions:** Learning geriatric psychiatry competencies in an interprofessional setting can simulate real world practice where recommendations from geriatric psychiatrists are one part of a larger interprofessional team input.

### CATEGORY: Oral Presentation

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#### Centering the Margins: Identifying Barriers and Facilitators to Palliative Care in a Dementia Focused Psychogeriatric Unit

*saumil Dholakia, Marly Isen, Erida Sihota, Sophiya Benjamin*

**Background:** The Alzheimer's society of Canada advocates for a palliative approach for older adults with advanced major neurocognitive disorder (MNCD) that should be individualized to meet the needs, values and preferences of each older adult and their family. However, older adults with advanced stage MNCD are less likely to be referred to palliative care, are prescribed fewer palliative care medications, and are infrequently referred to or are denied access to hospice care.

**Methods:** This continuing quality improvement (CQI) project adopts the reflexive thematic analysis qualitative research methodology to explore the barriers and facilitators to adopting a palliative care approach. We interviewed 19 key stakeholders, from multiple disciplines, at a 12-bed psychogeriatric program serving individuals with moderate to severe MNCD. We conducted semi-structured interviews, with key open-ended questions using purposeful random sampling technique

**Results:** Important facilitators to palliative care were upholding of patient-centered goals, respecting family wishes and strong therapeutic relationships, and clear communication of goals of care early during treatment. Lack of consistent staff training in palliative care, incongruence between the therapeutic milieu and comfort care goals and lack of a standardized palliative medication-order protocol were identified as barriers by the stakeholders in incorporating a palliative care approach for patients with advanced stage MNCD.

**Conclusions:** This psychogeriatric unit based CQI project identifies staff-training related barriers and strong therapeutic relationship-based facilitators to palliative care. Awareness of these barriers can facilitate plans to address them and improve access to palliative care in this and other similar psychogeriatric units.

**CATEGORY: Oral Presentation****Suicide Prevention, Intervention, and Postvention Among Older Adults: How are we Fairing and What can we do to Improve?***Marnin Heisel, David Conn, Claire Checkland, Christina Gallucci*

**Background:** Older adults have the highest rates of suicide in Canada and in most countries worldwide. A greater understanding is needed of suicide risk and resiliency factors, and of evidence-based suicide prevention, intervention, and postvention initiatives among older adults. The Canadian Coalition for Seniors; Mental Health (CCSMH) conducted a review of literature and hosted a stakeholder engagement session in 2021 in order to determine the current state of science on suicide and its prevention among older adults, including gaps in basic, applied, and public health research, and to identify opportunities for knowledge translation and exchange.

**Methods:** The primary research question addressed by this project was: What are the research and knowledge translation gaps and priorities on suicide and suicide prevention among older adults in Canada? This question was addressed in two phases: 1) via an initial scoping review of the Canadian and international literature on suicide among older adults; and 2) via a stakeholder engagement session with researchers, clinicians, and individuals with lived experience that sought to identify research and knowledge translation gaps and priorities regarding suicide prevention among older adults. Literature was included in this review if published between January 1, 2009 and October 31, 2020. Searches of data bases yielded a total of 11,101 articles. 7,103 were removed as duplicates or for relevancy. The 1,493 remaining articles underwent additional screening/abstraction.

**Results:** Overall, 117 Canadian and 1,115 international documents were included in this scoping review. The articles included in the literature review were broken down by primary outcomes (e.g., self-harm, suicide ideation, suicidal behaviour, and death by suicide) and themes (characteristics, risk factors, and resiliency/protective factors, prevention, intervention, postvention and MAID). Both the scoping review and stakeholder session drew attention to the need for more research and knowledge translation regarding suicide prevention among older adults in Canada. Greater attention was advised for generating knowledge and meeting the unique needs of subpopulations of older adults (diverse age groups, sexes, genders, sexual orientations, and ethnicities), and across institutional and residential settings, including retirement communities, long-term care homes, and correctional settings. Research is also needed on mental health promotion, determinants of health and well-being, and prevention of

suicide and self-harm, together with additional research on intervention and postvention activities.

**Conclusions:** Results of this scoping review provide a greater understanding of the current state of the Canadian literature and resources on suicide and its prevention among older adults. These findings can help inform current and future practice guidelines and identify strategic priorities for research, practice, and knowledge translation regarding suicide prevention, intervention, and postvention for older adults.

**CATEGORY: Workshop****Coping with Ageism in Ourselves and Others: Balancing Acceptance with Resilience***Ken Schwartz, Robert Madan*

**Background:** As we age, we hope that we will remain socially connected leading purposeful lives. Unfortunately, seniors for too long have been stereotyped as incapable with little to contribute. Dr. Robert Butler, in 1969, coined the term “ageism” to describe a personal revulsion to aging which was associated with disease and disability. Butler went on to predict that with time ageism would become a great social issue. With society more focused on correcting past injustices and prejudices, the question can be asked, whether ageism is still an area in which more progress needs to be made?

**Methods:** Based on clinical work and personal experience, examples will be presented and invited from participants demonstrating individual, medical and societal attitudes contributing to ageism. Examples presented will demonstrate systemic micro-aggressions in the LTC system, handling of romantic/sexual involvement of seniors leading to ethical concerns, personal struggles of accepting aging given constraints of declining health and vitality as expressed in individual and/or group therapy.

**Results:** Ageism is unique in that it is the last prejudice that we encounter. This workshop will encourage self-reflection on our own and societal attitudes on ageing and ageism.

**Conclusions:** Ageism is everywhere, in younger and particularly the old. We cannot deal with this prejudice confronting society until we become more aware of contributing systemic and individual prejudices. In challenging our views of what constitutes successful aging in a society that values youth, we can do our part in creating a society that better values diversity, inclusiveness and equity for seniors.

**CATEGORY: Workshop****Capacity to Consent to MAiD: Are Amendments in Keeping with Public Health Law Policy Warranted?**

*Richard Shulman, M. Jasmine Sweatman, Arlin Pachet, Nathan Spaling*

**Background:** In Ontario, capacity in respect to consent to a proposed treatment including medical assistance in dying (MAiD) is defined by the Health Care Consent Act as: A person is capable with respect to a treatment if the person is able to understand the information that is relevant to making a decision about the treatment and is able to appreciate the reasonably foreseeable consequences of a decision or lack of decision.

**Methods:** General principles of decision-making capacity include the decision is task, time, and situation specific and must be informed, voluntary and capable. The presumption of capacity aims to balance the promotion of autonomy with protecting against exploitation and undue influence, however medical and psychiatric diagnoses and cognitive testing alone cannot predict incapacity. We will review public policies/legislation regarding health law and capacity evaluation stemming from case law.

**Results:** We discuss whether: 1. the test of appreciation of consequences for MAiD should be expanded to include an appreciation of the input from others in the patient's social network to which the patient ought to give effect. 2. vulnerability to undue influence, whether MAiD should be a therapeutic option offered as a standard of care, and if so, what safeguards could be implemented to avoid therapeutic paternalism against MAiD, and/or therapeutic nihilism encouraging MAiD.

**Conclusions:** A case-based analysis will be used by a geriatric psychiatrist and a lawyer to explore the capacity evaluation issues and future outlook. The threshold for a particular decision-making capacity varies depending on the significance or irreversible nature of the outcome.

**CATEGORY: Workshop****Empowering Healthcare Providers and Social Service Employees to Help Prevent, Identify and Address Isolation Among Older Adults in Canada**

*Claire Checkland, David Conn*

**Background:** A recent Angus Reid survey found that 48% of Canadians reported themselves as being socially isolated, lonely, or both. Social isolation and Loneliness are associated with an increased risk of death of 26% and 29%, respectively. This increased mortality risk is comparative to the mortality risk associated with smoking 15 cigarettes a day or having an alcohol use disorder.

**Methods:** The CCSMH is embarking on a project to develop and promote Canadian guidelines for health and social service providers to identify and address social isolation and loneliness among older adults. In this workshop, we will present and discuss findings from a literature review on the role of health and social service providers in the prevention, identification, assessment and treatment of SI&L among older adults. We will also present findings from a survey sent to health and social service providers determining level of professional knowledge of health impacts, professional desire to help, barriers and enablers to help as well as opinions on tools that would support clinical and social interventions.

**Results:** This networking workshop will result in increased awareness and knowledge regarding: - the mental and physical health risks associated with social isolation and loneliness among older adults; – health and social service providers' role in preventing and treating social isolation and loneliness among older adults; – evidence-based, stepped-approaches to identifying, assessing and intervening in cases of SI&L among older adults.

**Conclusions:** If supplied with adequate information and resources, health and social service providers can play a key role in identifying and addressing isolation and loneliness thereby reducing its associated risks.

**CATEGORY: Oral Presentation****Do Older Adults Aged 55+ Mental Health Improve as Much Compared to Younger Adults with Cognitive Behavioral Therapy? A Review of a Large Multi-Diagnostic, Real-World Patient Database**

*Vincent Jetté Pomerleau, Harmehr Sekhon, Soham Rej, Gail Myhr*

**Background:** Older adults (OA, 55 years of age) are underrepresented in patients receiving cognitive-behavioural therapy (CBT). It is not currently known if this gap is due to OA being less responsive to CBT or physicians; bias. There is a lack of large studies assessing mental health outcomes for younger adults (YA, 55 years of age) versus older CBT patients.

**Methods:** This study compared OA (n=99) and younger adults (n=601) who received CBT. CBT intervention (18.5 ± 10 sessions) took place between 2001 and 2021. Most participants had an anxiety or mood disorder, but referrals were not limited by diagnosis. Data was collected before and after treatment. The main outcome was a clinically significant change in the individual, as measured by the Reliable Change Index (RCI). Secondary outcomes were symptom checklist scores for global severity index (GSI-SCL) and clinical global improvement values (CGI).

**Results:** In all outcomes, participants improved over time. The reliable change index (RCI) allowed a comparison of treatment efficacy across diagnoses. There was no significant age effect for the RCI ( $p=0.75$ ). Both groups experienced similar degrees of clinical improvement, with their RCIs being 2.99 (OA) and 3.16 (YA). Furthermore, 39% (OA) and 42% (YA) no longer met diagnosis. There was no age effect for the GSI-SCL. The CGI severity comparison showed that OA had a milder illness.

**Conclusions:** Conclusion: Our study analyzed the largest sample comparing OA and YA undergoing CBT. This study confirmed that OA undergoing CBT for mental health conditions benefit from it as much as YA.

### CATEGORY: Oral Presentation

#### Prioritizing Mental Health Support, Care and Treatment for Older Adults: What Matters Most to Canadians

*Justine Giosa, Elizabeth Kalles, Paul Holyoke, Heather McNeil, Karthika Yogaratnam*

**Background:** Aging-related changes can have an impact on mental health, but there is little research to date exploring aging-related mental health. Concern for the mental health of older adults in Canada continues to rise, especially considering the impact of the COVID-19 pandemic. Research is needed to inform a health system that can adequately and equitably respond to increased needs for support, care and treatment.

**Methods:** Guided by a steering group of experts-by-experience, we undertook a modified priority setting partnership to identify and rank the top 10 unanswered research questions on aging and mental health according to Canadians. This process involved 12 steering group meetings, two pan-Canadian surveys ( $n=305$ ;  $n=703$ ), and four pan-Canadian online workshops ( $n=52$ ). Qualitative and quantitative data analysis, a rapid evidence review, and a nominal group technique were used to establish consensus across the project.

**Results:** The top 10 unanswered research questions were about: 1) building skills for non-specialist providers; 2) addressing loneliness; 3) increasing care access; 4) achieving person-centred care; 5) technological challenges and opportunities; 6) supporting care transitions; 7) addressing provider burnout; 8) caregiver involvement in planning care; 9) financial help for care affordability; and 10) addressing mental health of caregivers.

**Conclusions:** Addressing the top 10 unanswered research questions can help create a health system that better meets the holistic care needs of aging Canadians across the lifespan and mental health continuum.

### CATEGORY: Oral Presentation

#### Treatments for Depression for Older Adults Living in Long-Term Care: a Systematic Review and Network Meta-Analysis

*Kayla Atchison, Peter Hoang, Cindy Chang, Daria Merrikkh, Jennifer A Watt, Zahra Goodarzi*

**Background:** Approximately 29% and 10% of older adults living in long-term care (LTC) experience depressive symptoms and disorders, respectively. It is unclear how to best approach treatment for depression in the LTC population. We aimed to assess the efficacy of interventions for depressive symptoms and disorders trialled with those living in LTC.

**Methods:** We searched six electronic databases and grey literature sources to identify randomized controlled trials describing pharmacologic or non-pharmacologic interventions. Studies had to measure depression as an outcome in persons living in LTC. All citations returned were reviewed in duplicate. Quality was assessed and data including resident characteristics, intervention and control conditions, and mean depression scores for each condition were extracted from included studies. We have completed pair-wise meta-analysis comparisons and are currently working towards completing a network meta-analysis.

**Results:** One hundred fifty-four studies met inclusion criteria from the 9359 returned from databases. Twenty-eight studies were added from grey literature sources. Study populations included the general LTC population ( $n=141$ ) and those with clinically relevant depressive symptoms at baseline ( $n=41$ ). Eight of sixteen pharmacologic intervention studies described antidepressants. All other included studies described non-pharmacologic interventions, with the most common being group reminiscence therapy ( $n=22$ ), multicomponent interventions ( $n=22$ ), and exercise ( $n=18$ ).

**Conclusions:** A variety of non-pharmacologic interventions were identified. Identifying and assessing the efficacy of treatments trialled in persons living in LTC may help clinicians select treatments appropriate for residents; needs. There is a need for more trials of pharmacologic interventions in LTC and trials completed with residents experiencing clinically relevant depression at baseline.

**CATEGORY: Workshop****Dignity and Human Rights-Based Care for Older Persons Living with Mental Health Conditions—The “Why” & “How” for Clinicians***Kiran Rabheru, Debanjan Bannerjee, Shabbir Amanullah*

**Background:** Our world faces rapid population aging. Based on the WHO estimates, nearly 20% of older persons will have mental health conditions such as dementia, depression, anxiety and substance use, often complicated by physical and psychosocial comorbidities. Various mental health inequalities exist in this vulnerable population negatively influencing their healthcare and social status. This includes the “triple jeopardy” of ageism, ableism and mentalism. The ongoing COVID-19 crisis has only widened this marginalization among older persons.

**Methods:** Even though there has been a paradigm-shift in neurobiological understanding of psychogeriatrics, dignity-based mental healthcare is still silent in research as well as practice. This workshop brings in recommendations to include the principles of rights, dignity, equality, equity and respect in clinical care for older persons living with mental health conditions, including dementia. These suggestions are based on literature review, position statements of global organizations working in this area, the Decade enablers of the UN Decade of Healthy Aging (2021-2030) and also clinical experience of the authors. Special focus will be on end-of-life care, advance directives and those in institutionalized settings.

**Results:** The workshop will involve a strategic and interactive discussion based on real-life case vignettes. Focus will be on ensuring dignity and promoting human rights in routine clinical care and patient-physician communication, age-friendly healthcare settings for older persons and role of dignity therapy. The need for an International Convention for the rights of older persons will also be highlighted with evidence.

**Conclusions:** Ensuring human rights in older persons can combat ageism and prevent elder abuse. Adequate sensitivity and training of professionals in this area will set the future pathway for dignified mental health interventions in the older persons that are devoid of age-based discrimination and prejudice.

**CATEGORY: Symposium****Silver Linings: Supporting Smoking Cessation for Smokers in Long Term Care: Ethical Considerations During COVID***Marilyn White-Campbell*

**Symposium Summary:** In the first wave of COVID, residents were relegated to isolate in their rooms to prevent the spread of COVID by infected residents and to prevent residents from contracting COVID. Residents who were nicotine dependent

were required to be in isolation without regard for the level of discomfort triggered by the withdrawal from nicotine. The withdrawal resulted in expressions of behaviour related to the withdrawal. Knowledge on nicotine dependence in older adults was a gap in a system that was already stretched and struggling to meet the needs of LTC residents during the height of the pandemic. Successful outcomes from a collaboration with CAMH and BSSP Baycrest BSO for smoking cessation will be discussed using case based learning. This session will discuss treatment approaches for nicotine dependent older adults with concurrent mental health and or dementia.

**CATEGORY: Individual Abstract****Silver Linings: Supporting Smoking Cessation for Smokers in Long Term Care: And Ethical Considerations and Moral Responsibilities During COVID***Marilyn White-Campbell, Jordanne Holland*

**Background:** In the first wave of COVID, residents were relegated to isolate in their rooms to prevent the spread of COVID by infected residents and to prevent residents from contracting COVID. Residents who were nicotine dependent were required to be in isolation without regard for the level of discomfort triggered by the withdrawal from nicotine. The withdrawal resulted in expressions of behaviour related to the withdrawal. Knowledge on nicotine dependence in older adults was a gap in a system that was already stretched and struggling to meet the needs of LTC residents during the height of the pandemic. Successful outcomes from a collaboration with CAMH and BSSP Baycrest BSO for smoking cessation will be discussed using case based learning. This session will discuss treatment approaches for nicotine dependent older adults with concurrent mental health and or dementia. Smoking can be a barrier to a long term care home admission for older adults. Long term Care homes often identify they feel ill equipped to accept smokers into their care facilities. There are concerns of risks for residents participating in covert smoking and associated risks for fires.

**Methods:** Residents from 14 Long term care homes were provided with left over nicotine replacement products from CAMH from 2019 to 2022. All participants were seen via OTNE-visit and assessed for level of nicotine dependence. Residents with Nicotine dependence were offered choices to use nicotine replacement during their isolation period. Each resident had individualized treatment plans developed guided by the resident’s choices and level of dependence. Behaviours associated with nicotine withdrawal decreased dramatically when treated with NRT. Residents with COVID were able to comfortably comply with smoking cessation and safely isolate, which greatly reduced risk of transmission to other residents and staff.

**Results:** Several residents with high levels of nicotine dependence who were COVID positive and used NRT were successful in maintaining isolation. Residents were supported in their

choices to use NRT or other methods to maintain their comfort during isolation and smoking cessation. Resident autonomy was respected and residents reported use of NRT was helpful in smoking cessation. Post lock down many residents continue to use NRT to support their continued smoking cessation and some residents have had a full quit.

**Conclusions:** Smoking cessation support in long term care including a thorough smoking assessment for nicotine dependence and offering free nicotine replacement should be offered routinely to all nicotine dependant residents of long term care. This practise should be implemented in all long term care homes in Ontario.

### CATEGORY: Individual Abstract

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#### **Silver Linings: Opportunities for Transformative Change to Address Inequities in Smoking Cessation for Older Adults in Long Term Care and Supportive Settings**

*Peter Selby, Laurie Zawertailo, Sarwar Hussain, Carolyn Peters*

**Background:** The Smoking Treatment for Ontario Patients (STOP) Program is a province-wide initiative delivering smoking cessation treatment and counselling support to people who want to reduce/quit their tobacco use. These supports are available free of charge, through partnerships with community health care organizations. Importantly, STOP has been able to reach and successfully be implemented within vulnerable communities that face barriers in accessing care. The STOP Program is funded by the Ontario Ministry of Health. The devastating effects of Covid-19 in long term care are well known. The Covid-19 pandemic has brought major challenges to long term care residents who smoke. Older smokers were required to be in isolation. Smoking cessation was an expectation rather than exception. It is well known that older adults are less likely to be counselled to quit. Similarly access smoking cessation support is a barrier to treating this vulnerable population. Tobacco accounts for the highest substance attributable health care costs in Canada and end of life care for a smoker is comes with significant costs. When patients are in hospital, smoking cessation mandatory and includes health care funded Nicotine Replacement Therapy (NRT). There are health inequities for older adults who transition from hospital to long term care as they do not have access to funded NRT. The choice to use funds for personal needs, NRT or smoking often is the cause of patients returning to smoke.

**Methods:** The STOP program and Nicotine Dependence Clinic (NDC) at CAMH supported several long term care homes in the TCHLIN with Nicotine Replacement during the pandemic. This support enabled nicotine dependent resident's access to free nicotine replacement during lock down in long term care homes that had COVID -19 outbreaks. The eligibility criteria for enrollment in the STOP program were

waved due to the urgency in the homes on outbreak. The need to support smoking cessation for resident smokers who were required to be in mandatory isolation during outbreaks was a priority. The usual criteria for enrollment in the STOP program was waved due to the urgency in the homes and the need to support residents who were smokers who were required to be in mandatory isolation during outbreaks. Residents were assessed by a TEACH trained geriatric Addiction specialist from Baycrest Behavioural Support for Seniors Program (BSSP). Each resident had an individualized assessment for nicotine dependence. If the resident was a high risk smoking with history of smoking related fires resulting in burns or injury to the resident or others, an addiction medicine physician from the Nicotine Dependence Clinic (NDC) consulted with the resident and team via WebEx consultation platform to give input on the care plan.

**Results:** Residents of 14 long term care homes in the TCLHIN were supported with during the pandemic. We used left over NRT from a variety of sources to support the homes. Nicotine Replacement Treatment (NRT) during the Pandemic. Resident cessation rates and quit rates were high. Positive feedback from the long term care homes, residents and BSO staff to CAMH Nicotine Dependence Clinic resulted in a review by the STOP program with consideration for a long term solution.

**Conclusions:** The STOP program at CAMH continues several long term care homes in the TCLHIN with Nicotine Replacement during the pandemic. This support enabled nicotine dependent resident's access to free nicotine replacement during lock down in long term care homes that were in COVID-19 outbreaks. The pandemic can be a transformative: opportunity to redesign smoking cessation supports for long term care. We have an obligation to learn from this and restructure our smoking cessation programs for residents of long term care who are nicotine dependent. The silver lining of the pandemic was the paradigm shift in attitudes towards nicotine dependence treatment which resulted in the best outcome or greatest good for greatest number of persons. Consideration to a permanent provincial based STOP program for all Long term care homes, and supportive housing for older vulnerable adults with mental health, addictions and frailty will be prioritized. Going forward, we want STOP to be doing this formally.

### CATEGORY: Individual Abstract

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#### **Silver Linings: Implementing a Resident Centered Smoke-Free Environment for Older Adults in Long Term Care, Pandemic Lessons Learned**

*Harley Hansen, Marilyn White-Campbell, Aviva Rostas*

**Background:** Smoking can be a barrier to a long term care home admission for older adults. Long term Care homes often identify they feel ill equipped to accept smokers into their care facilities. There are concerns of risks for residents participating in covert smoking and associated risks for fires.



In this symposium participants will learn how the Reikai Center supported safe smoking cessation in the long term care at the point of transition. This session will explore two approaches to implementing a smoke free environment; from CAMH's hospital setting and translated to the setting of an urban inner city long term care home.

**Methods:** The Reikai Center offered behavioural support to all residents in the home who smoked and referred to the BSO Geriatric Addiction Specialist. Residents were supported with safe smoking cessation including those with mental health, and dementia. Collaboration with CAMH and Behavioural Support Addiction Specialist assisted the team to support a smoke free environment in the home during a high outbreak of Covid-19. Behavioural and Pharmacotherapeutic approaches in the treatment of nicotine use disorder were used. Supporting a culture in the Reikai Center included social engagement, providing nicotine replacement at no cost contributed to the home becoming smoke free while supporting the mental health and physical well being of our residents. Residents were offered nicotine spray and or the patch along with activities while they were required to remain in their rooms during outbreaks.

**Results:** All residents who were smokers were supported with leftover Nicotine replacement donated by CAMH. The BSO geriatric addiction specialist provided assessment and treatment plans for each resident. Resident choice and autonomy was respected and residents were successful with smoking cessation. The home has been smoke free for over two years.

**Conclusions:** Care and compassion and collaboration to support residents to safely and comfortably participate in smoking cessation is a key component to success in promoting healthy choices to develop a smoke free culture at the Reikai Center.

### CATEGORY: Oral Presentation

#### Addressing the Knowledge Gap for Cannabis and Older Adults

*David Conn, Kiran Rabheru, Claire Checkland, Daria Parsons, Kataryna Nemethy*

**Background:** CCSMH conducted a needs assessment survey of physicians, other healthcare providers, healthcare students, older adults and caregivers in Fall 2020 on cannabis and older adults. Results indicated that, although 89% of physicians and nurse practitioners are aware of older patients in their practice using cannabis, only 39% agreed or strongly agreed that they have sufficient knowledge and expertise to address older patients' questions about cannabis. In response to this gap, CCSMH developed e-Learning modules and a clinician toolkit to enhance knowledge and expertise regarding cannabis and older adults.

**Methods:** The results of CCSMH's needs assessment survey and a review of the scientific literature informed development of module content to address the knowledge gap. The Steering Committee and Scientific Planning Committee approved eleven module topics and content, and a knowledge translation plan.

**Results:** The presentation will include highlights of module content including how to assess the appropriateness of cannabis use for older adults, regulations, guidelines and medico-legal considerations for clinicians, neuropharmacology, adverse effects including drug interactions, evidence for cannabis as treatment, dosing and accessing cannabis, how to talk to patients about cannabis and developing a treatment plan. The project included development of a toolkit of supporting material containing resources for clinicians and older adults. Access to the toolkit resources will be shared.

**Conclusions:** CCSMH developed accredited, asynchronous eLearning modules and a clinician toolkit to address the identified knowledge gap for clinicians.

### CATEGORY: Oral Presentation

#### Real-Time Location Systems in the Care of Older Adults with Cognitive Impairment Living in Residential Care: a Scoping Review

*Lynn Haslam-Larmer, Leia Shum, Caitlin McArthur, Charlene Chu, Alastair Flint, Katherine McGilton, Andrea Iaboni*

**Background:** Various technologies have been considered for use in older adults measuring variables such as detection of agitation, falls risk, gait analysis, and physical activity levels. Real-time location systems (RTLS) are a specific technology that provides the ability to track individuals and equipment real time. RTLS has been increasingly used across hospital and residential care home settings. Healthcare providers can use mobility data to characterize an individual's movement and behaviour patterns. Thus, there is potential to use RTLS health indices data to augment healthcare decisions and measure clinical outcomes. This review aims to map out and describe the available evidence reporting clinical use or validation of clinical measures and decision-making tools using this technology with older adults with cognitive impairment living in residential care.

**Methods:** The following databases were searched: Embase, CINAHL, MEDLINE, PsycINFO and IEEE Xplore.

**Results:** A total of 19 studies were included. RTLS data was used to assess activity levels, wandering/risk of wandering, social engagement, and cognition. Most recently, the technology has been used to detect gait changes associated with delirium, thus enabling earlier intervention. RTLS-based measures were not consistently validated against clinical measures or clinically important outcomes.

**Conclusions:** Interest in the use of RTLS technology for older adults with cognitive impairment who live in residential care has increased substantially since 2010. RTLS technology has been used to assess a wide variety of clinical indicators. Further research is required to derive and validate these indicators and identify how they can be used to inform clinical decision-making.

### CATEGORY: Oral Presentation

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#### Telehealth Intervention Program for Older Adults (TIP-OA): Needs Assessment of Community Organizations Serving Older Adults on Montreal During Covid-19

*Syeda Nayab Bukhari*

**Background:** The number of isolated and vulnerable older adults increased overnight due to the emerging realities of Covid-19 posing a greater risk to their physical and mental health. Community organizations (COs)—often the first point of contact, serving older adults—were not ready to meet the increasing needs of their clientele.

**Methods:** A Telehealth Intervention Program for Older Adults (TIP-OA) was initiated in April 2020 providing once/twice a week friendly phone calls from trained volunteers to older adults (age 60+), particularly those struggling with mental health issues. The aim was to provide social support to older adults and connect them with services (food, medicine, transportation, etc.) by creating and supporting networks of COs serving this population. Using semi-structured qualitative interviews with older adults, volunteers, and representatives of COs, this paper identifies and analyzes emerging needs, changing roles, and challenges of the COs during the pandemic.

**Results:** Following themes emerged in the preliminary findings: increased mental health issues (among clients and the staff members of the COs); lack of organizational capacity and experience to deal with the Covid-related challenges; insufficient and unsustainable funding and resources; barriers to outreaching the most vulnerable groups (e.g., minority communities); communication and collaboration among COs; barrier in digital service delivery model; and the need for simplified, accessible, and participatory research to improve the programming of COs.

**Conclusions:** Community organizations were not prepared to deal with the Covid-related challenges. A comprehensive and sustainable plan is needed to increase the capacity of COs and prepare them for any future challenges.

### CATEGORY: Poster Presentation

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#### Evaluation of an Introductory E-Learning Module About Sexuality and Dementia

*Katelynn Aelick, Rosemarie Mangiardi, Kristy McKibbon, Birgit Pianosi, Lori Schindel Martin*

**Background:** Many healthcare providers (HCPs) apply personal values and beliefs to make sense of the sexual expressions of people living with dementia; while doing so, they run the risk of labeling these expressions as pathological and/or inappropriate. Without an understanding of evidence-based approaches, HCPs may also stigmatize people living with dementia, separate them from their peers, and administer unnecessary medications. Challenging these harmful practices requires HCPs to increase their knowledge, expand their skillset, and change the way they perceive the sexual and intimacy needs of people living with dementia.

**Methods:** In order to promote positive practice change, we developed a free e-learning module for current and future HCPs titled, “Dementia and Sexuality: An Introduction”. This e-module employs a case-based approach, inviting HCPs to consider how people living with dementia express their unmet sexual and intimacy needs and how HCPs working in various care settings may work collaboratively to address such needs.

**Results:** We invited all learners accessing the e-module from November 2021 to May 2022 to participate in pre- and post-learning surveys, during which they voluntarily evaluated the content and design of the e-module.

**Conclusions:** During our presentation, we will share the quantitative and qualitative findings. Additionally, we will explain how the findings will inform our future efforts in developing three additional e-modules, funded by the Alzheimer Society Research Program. We are committed to developing an e-learning program with the aim of building capacity among HCPs so they can assess and respond to the sexual and intimacy needs of people living with dementia.

### CATEGORY: Poster Presentation

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#### My Personhood Summary: an Updated Autobiographical Tool to Support the Provision of Person-Centred Care

*Katelynn Aelick, Hillary Langen, Melanie Beaulieu, Monica Bretzlaff*

**Background:** Knowledge and understanding of how individuals; life experiences, significant relationships, personal preferences, and other psychosocial and environmental factors impact their daily lives is essential to the provision of person-centred care. Since Behavioural Supports Ontario’s (BSO)

inception, BSO teams have adopted various autobiographical forms to surface this information for use in the practice of caring for people living with dementia, complex mental health, substance use and other neurological conditions. In response to the request for a standardized BSO autobiographical tool that could be adopted by multidisciplinary teams working across various sectors, we launched a working group to update a regionally-developed tool, PIECES of my PERSONHOOD, for inclusion in the BSO Provincial Toolkit.

**Methods:** In this presentation, we will outline the process by which North East BSO, the BSO Lived Experience Advisory, and the BSO Provincial Coordinating Office collaborated to update PIECES of my PERSONHOOD. This process included an environmental scan, working group meetings, external consultations, tabletop simulations, and a province-wide pilot.

**Results:** The final product, now called My Personhood Summary (MPS), is a two-page fillable form containing four domains of personhood: (1) Me at a Glance, (2) My Life History, (3) My Likes and Dislikes, and (4) My Ideal Daily Routine. Accompanying the tool are guidelines for use as well as other resources to facilitate the implementation of the tool in practice.

**Conclusions:** Implementing MPS can enhance multidisciplinary team members; abilities to inform the development of person-centred behavioural support plans, foster supportive relationships, and establish meaning in individuals; daily lives.

### CATEGORY: Poster Presentation

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#### A Cross-Cultural Reliability and Validity Study of the Arabic Version of the Kingston Standardized Cognitive Assessment Revised (Kscar)

*Houda AlQataybi, Houda Al Qataybi, Najat Khalifa, Lindy Kilik, Mandhar Al.Maqbali, Nasra AL-Sawwafi*

**Background:** As the number of senior Arabic speakers rises, so does the necessity to test the cognitive function of the general Arabic population, including natives, refugees, and immigrants. Kingston Standardized Cognitive Assessment revised (KSCAR) is a comprehensive and reliable tool for assessing cognitive function.

**Methods:** The original English KSCAR form and its Manual were translated to Modern Standard Arabic. Two forward translated versions of the instrument were produced by two bilingual and bicultural psychiatrists. A third independent psychiatrist, who is also bilingual, reviewed the translated versions and compared them with the English version. A committee was convened to resolve ambiguities and discrepancies in translation before approving a preliminary Arabic version of the KSCAR. The preliminary Arabic version was then back

translated to English by a bilingual psychiatrist who was completely blind to the original version of the instrument. A committee compared, evaluated similarity, and reviewed the back translation. A pilot study will be conducted to assess the reliability and validity of the Arabic version of KSCAR as compared with the Arabic version of the Mini Mental State Examination. To the best of our knowledge, this is the first study to translate the KSCA into Arabic, allowing for early, comprehensive, and accurate assessment of cognitive impairment in the Arabic-speaking population.

**Results:** –

**Conclusions:** –

### CATEGORY: Poster Presentation

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#### Driving Errors that are Specific to Dementia: a Review of the Literature

*Sayeh Bayat, Evelyn Vingilis, Jane Seeley, Mark Rapoport*

**Background:** A better understanding of driving errors specific to individuals with dementia may improve the detection of dementia in older adults via driving patterns. The aim of this project was to review the literature on the types of driving errors that are more common among people with dementia compared to similarly aged controls.

**Methods:** A literature search was performed using the databases MEDLINE, Scopus, Embase, and PsycINFO, from 1994 to September 2021. We only included articles if they directly address the topic of typical driving errors for drivers with dementia during on-road driving tests, driving simulator experiments or naturalistic driving, and if they include groups of individuals with dementia and compared them to those without dementia.

**Results:** Of a total of 585 citations, thirty studies were included. Most of the studies found an increased variability in speed, lateral lane position, and headway distance for individuals with dementia compared to similarly aged controls. While most studies found lower average speed in people with dementia, two articles reported an increased number of speed exceedances and percentage of time speeding among people with dementia during simulated driving experiments. A greater number of driving errors related to turning, lane observance and traffic lights were observed in individuals with dementia.

**Conclusions:** The results point toward identifiable differences between driving behaviours of older adults with and without dementia. However, these findings must be interpreted with caution given the significant methodological limitations of the studies, including small samples, lack of accounting for confounding factors, and non-validated experimental settings.

**CATEGORY: Poster Presentation****The Impacts of Mindfulness and Behavioural Activation on Brain Health in Late Life Depression: Resolving Complexity Through a Proposed Experimental Design***Magnus Bein, Myriam Lesage, Michael Lifshitz, Harmehr Sekhon, Soham Rej*

**Background:** Late life depression carries a high burden of disease and morbidity in aging populations. Behavioural activation via cognitive-behavioural therapy is a proven treatment for depression while mindfulness-based interventions hold increasing promise. However, the mechanisms of action remain complex, and their effects on cognition, brain biomarkers, and lasting clinical outcomes have not been resolved, let alone assessed in older adults with depression, who may have increased vulnerability to cognitive decline.

**Methods:** Through a narrative review, this contribution discusses what is known and still remains to be resolved about the impacts of mindfulness and behavioural activation on clinical outcomes, brain structure, and function in late life depression. We highlight the links between clinical outcomes, cognitive scales, and brain biomarkers, including findings by our group. An experimental design is proposed to evaluate causal processes spanning the brain, psychological-cognitive, and behavioural levels for a subsample of 40 participants, within a larger multi-site Phase III trial.

**Results:** Mindfulness and behavioural activation are predicted to have differential impacts on attention, centering, context engagement, and reward, with knock-on effects on depression; however the mediating role of psychological and cognitive function is not clear. In our pilot studies, we found MBCT improved depression scales 2-fold after 8 weeks compared to treatment as usual in older adults. In another pilot RCT with depressed adults aged 25-65 years old, we found that a two-week MBCT intervention led to down regulation of connectivity of the executive network to higher-order sensory processing regions.

**Conclusions:** Resolving causal mechanisms in cognitive-behavioural responses in the context of psychopathology, like late-life depression, is critical to prioritize and design effective interventions in vulnerable populations. We present a framework and study design to help clarify these processes and inform novel, scalable, non-pharmacological brain-altering treatments to reduce the burden of LLD and its complications.

**CATEGORY: Poster Presentation****Longitudinal Changes in Brain Structure Reflect Differential Patterns of Behavioural and Neuropsychiatric Symptom Change in Genetic Frontotemporal Dementia***Paul Tristin Best, Mallar Chakravarty, Simon Ducharme*

**Background:** Neuropsychiatric symptoms (e.g., delusions, anxiety) are common in genetic frontotemporal dementia (FTD), which is caused primarily by one of three genetic mutations: chromosome 9 open reading frame 72 (C9orf72), progranulin (GRN), and microtubule-associated protein tau (MAPT). Their neural correlates, however, are poorly understood and based on cross-sectional analyses. Thus, we examined the relationship between longitudinal brain atrophy and changes in psychiatric symptoms in presymptomatic and symptomatic mutation carriers.

**Methods:** We used T1-weighted structural MRI images and behavioural and psychiatric symptom measures from the Cambridge Behavioural Inventory-Revised from subjects with FTD-related mutations (n= 140) and controls (n= 101) with multiple time points from the GENFI study. We assessed within-subject change at approximately two years by estimating voxel-wise relative volume change using deformation-based morphometry. Using partial least squares correlation separately for each mutation carrier group and controls, we examined the relationship between neuroanatomical change and changes in psychiatric and behavioural symptoms over two years.

**Results:** For each mutation carrier group, we obtained one significant latent variable (LV) (p 0.01) and none for controls. Despite overlap between LVs across mutations, there were specificities. The C9orf72 LV showed patterns of sporadic atrophy associated with behavioural and psychotic symptom deficits. The GRN LV highlighted patterns of atrophy related to behavioural and mood deficits. The MAPT LV illustrated patterns of atrophy related solely to behavioural deficits.

**Conclusions:** These findings highlighted patterns of brain atrophy unique to each mutation carrier group that reflected differential changes in neuropsychiatric symptoms, including a previously established link between C9orf72 mutations and psychosis.

**CATEGORY: Poster Presentation****Virtual Mindful Chair Yoga (MCY) Intervention: a Pilot Randomized Controlled Trial for Older Adults with Dementia and Caregivers***Katie Bodenstein, Soham Rej, Harmehr Sekhon*

**Background:** Older adults with dementia and mild cognitive impairment (MCI), and their caregivers have faced increased stress, loneliness, mental health symptoms, and barriers to access interventions in a safe way during COVID-19. Virtually delivered mindfulness and physical movement interventions, such as chair yoga, may be a safe and efficacious option.

**Methods:** In a double-blind pilot randomized controlled trial (n=30) we assessed the mental health effects of an 8-week Mindful Chair Yoga program via Zoom for older adults (aged 60+) with dementia/MCI (n=15) and their caregivers (n=15). Participants were randomly assigned to either the mindful chair yoga intervention or waitlist control group. The primary outcome was stress (Perceived Stress Scale (PSS)) and secondary outcome was loneliness (UCLA Loneliness 3-item scale (UCLA-3)). Exploratory outcomes included anxiety (Generalized anxiety disorder 7-item scale (GAD-7)), depression (Patient health questionnaire 9-item scale (PHQ-9)), caregiver burden (Zarit Burden Interview (ZBI)), and fear of COVID-19 (Fear of COVID-19 scale (FC-19s)). All outcomes were measured at baseline and post-intervention (week 8). Participants in the waitlist control group were offered the program after completion of data collection.

**Results:** Results will be presented at the CAGP 2022 conference.

**Conclusions:** We anticipate that this mindful chair yoga intervention will improve stress, loneliness, mental health symptoms, and caregiver burden compared to the waitlist control group for older adults with dementia/MCI and their caregivers. Future RCTs with larger sample sizes could further confirm the effects of this pilot virtual mindful chair yoga program.

**CATEGORY: Poster Presentation****Cell-Based Serum Anticholinergic Activity Assay and Working Memory in Cognitively Healthy Older Adults Before and After Scopolamine***Susmita Chandramouleeswaran, Zaid Ghazala, Jose N Nobrega, Roger Raymond, Sara Gambino, Bruce G Pollock, Tarek K Rajji*

**Background:** A new cell-based serum anticholinergic activity (cSAA) assay that measures anticholinergic activity specifically at muscarinic M1 receptors and eliminates many of the drawbacks of the existing assay, was developed by our team. We aimed to study the relationship between changes in working memory and executive function with changes in

cSAA using the new assay in cognitively healthy older adults.

**Methods:** Cognitively healthy participants aged 50 years and above, received a single dose of 0.4 mg of intravenous scopolamine. Cognition and cSAA levels were measured before and 30 minutes after receiving scopolamine. Cognition was measured using the Cambridge Neuropsychological Test Automated Battery (CANTAB).

**Results:** Ten participants were recruited, and nine (mean age = 69.8, SD = 9.5, range 59-86 years) completed the study. Following scopolamine, participants experienced an increase in cSAA (cSAA pre = 0.90  $\pm$  0.97 vs. cSAA post = 12.0  $\pm$  3.70 pmol/L; t-test (df = (8)) = -9.5, p < 0.001). In addition, there was an association between change in cSAA and changes in working memory (Spearman's rho = 0.68, p = 0.042), and executive function (Spearman's rho = 0.72, p = 0.027).

**Conclusions:** In our sample of cognitively healthy older adults, the new cSAA assay was able to quantify the scopolamine induced increase in anticholinergic load which correlated significantly with the observed decline in working memory and executive function.

**CATEGORY: Poster Presentation****Effects of Virtual Reality Meditation in Older Adults: the Protocol of a Pilot Randomized Controlled Trial***Karin Cinalioglu, Paola Lavin, Magnus Bein, Johanna Gruber, Jade Se, Myriam Lesage, Syeda Bukhari, Pascal Fallavollita, Ipsit Vahia, Soham Rej, Harmehr Sekhon*

**Background:** Mindfulness-based interventions have emerged as an alternative intervention to improve stress, depression and related mental health outcomes. Virtual reality, an emerging technology that is being increasingly used in different healthcare settings may be used for meditation and enhance the experience due to its immersiveness. Emerging evidence supports that virtual reality (VR) can aid in the treatment of depression and anxiety as well as improving mood, in younger adults, although this has not been studied in older adults. This is the first randomized controlled trial (RCT) study evaluating virtual-reality based meditation in older adults.

**Methods:** This is a randomized controlled trial (RCT) of a virtual-reality based mindfulness intervention (n=30) in stressed older adults (60 years of age) to evaluate its effects on mental health outcomes including stress, depression and anxiety, and to assess the feasibility and acceptability of this intervention. The VR-content was developed in eight 15-minute sessions in English, with scenic stationary 360 nature imagery that simulates a calm natural environment and audio that includes nature sounds and instructions to guide the meditation. Content covered 1) comfort with silence, 2) recognition of mind wandering and returning to the meditation object, 3) hindrances,

4) self-compassion, 5) facing pain, 6) metta-meditation, and 7) self-reflection. Comparison of the intervention group (n=15) and wait-list control group (n=15) will examine the effect of the intervention on stress using the Perceived Stress Scale (primary outcome), anxiety and depression using the Generalized Anxiety Disorder 7 scale (GAD-7) and the Patient Health Questionnaire 9 (PHQ-9), respectively (secondary outcomes) and other outcomes including quality of life, insomnia, loneliness, and mindfulness (exploratory outcomes).

**Results:** Results will be available at the time of presentation. Change in PSS scores from baseline to 4-week post-intervention will be compared between groups (Primary Objective/Hypothesis 1); GAD-7 and PHQ-9 scores will similarly be compared between groups (Secondary Objective/Hypothesis 2). Changes in PSS, GAD-7, and PHQ-9 scores will be compared between the intervention and control groups using two-way analyses of variance (ANOVA) with within-subject (time) and between-subject (group) factors.

**Conclusions:** This study, if effective, may be a viable solution to address stress in older adults. This intervention may decrease the economic burden on the healthcare system as it could be delivered in an at-home setting and become an easily scalable and cost-effective novel alternative health intervention for managing seniors; mental health.

### CATEGORY: Poster Presentation

#### Development of a Geriatric Intensive Case Management Program for Precariously Housed Older Adults Living with Chronic Mental Illness

*Katherine Edmond, Ari B. Cuperfain, Daniel Elder, Torie Vaughan, Michael Tau, Mira Fostoc*

**Background:** Homelessness and severe mental illness (SMI) are highly correlated. Older adults constitute approximately 4% of the Canadian homeless population; however, this proportion is increasing. Within the GTA, 27% of older adults experienced difficulty paying rent. In Toronto, between 2009 and 2011 the population of older adults experiencing homelessness doubled. The Assertive Community Treatment model has been shown to improve certain outcomes for homeless individuals with SMI. Yet for older adults, there are gaps in addressing psychogeriatric concerns, including medical comorbidity, polypharmacy, and functional and cognitive impairment.

**Methods:** We describe the development of a novel community psychiatric service, Project Dignify, specifically serving precariously housed older adults with SMI in order to address this gap. The process of team creation is described, including engagement of stakeholders, environmental scans, provider consultation, proposal development, and securement of funding.

**Results:** Project Dignify serves clients who meet the following inclusion criteria: over 65 years of age, homeless or at risk for homelessness, presence of a mental disorder, mild to moderate

cognitive disorder. The team consists of a geriatric psychiatrist and three interdisciplinary case managers. Services include diagnosis and treatment, supportive counseling, housing support, and medication management. Barriers include challenges in engaging and locating clients due to, in part, limited shelter spaces and lack of access to phones.

**Conclusions:** Project Dignify aims to provide services to a growing underserved population of older adults with SMI to promote autonomy and community living. Next steps include ongoing recruitment, followed by program evaluation with respect to outcomes and client satisfaction.

### CATEGORY: Poster Presentation

#### Optimal Aging for Physicians in Nova Scotia: a Positive Psychiatry Pilot Study to Promote Wellbeing in Older Physicians

*Amy Gough, Keri-Leigh Cassidy, Margaret Casey, Jean Robinson-Dexter, Michael Vallis, Gail Eskes, Erica Frank*

**Background:** The Fountain of Health (FoH)'s Thrive MD Physician Wellness model is a health promotion knowledge translation (KT) initiative using evidence-based domains of brain health and resilience, with emphasis on S.M.A.R.T. (specific, measurable, action-oriented, realistic, time-limited) goal-setting and CBT-based behavioural activation. In this pilot study, the THRIVE Approach to Wellbeing was adapted for use with older adult physicians in Nova Scotia as a CPD-accredited two-part webinar series designed to enhance health attitudes, reduce negative aging stereotypes, and increase self-reported health behaviours.

**Methods:** This is a quality assurance study using within-subject pre- to post- self-report measures on physician health behaviours, attitudes, outlook on aging and practice intentions (per Healthy Doc=Healthy Patient). Older physicians (defined as mid-late career, targeting age 50+) in Nova Scotia are being invited to participate in two, one-hour webinars four weeks apart including KT on self-care using behavioural activation tools and S.M.A.R.T. goal-setting. Outcome measures include pre-to post- self-report on physicians: 1) health attitudes, self-care behaviours, and practice intentions and 2) goal-attainment scaling to assess behaviour change.

**Results:** Results from enrolled physicians in the Spring 2022 course will be presented.

**Conclusion:** We hypothesize the Thrive MD Physician Wellness Program adaptation for older physicians will positively impact physician self-care attitudes, ageing stereotypes, and health behaviours. It is anticipated that participants; raised awareness of health promotion tools will contribute to self-reported intention to apply the evidence-based health promotion tools in their own practices. Results will be used to guide future adaptation of the Thrive MD Physician Wellness Program for scale-up in Canada to promote older physician wellness.

**CATEGORY: Poster Presentation****The Effectiveness of Mindfulness-Based Meditation Treatments for Late Life Anxiety: a Systematic Review of Randomized Controlled Trials and Implications for Ethical Research and Clinical Practice***Stacey Hatch, Jodi Webber, Soham Rej, Marcia Finlayson, Dorothy Kessler*

**Background:** Mindfulness-based meditation interventions (MBI) are an emerging area of research interest in the treatment of mental health problems. As older adults are interested in MBIs, clinicians have an ethical obligation to their older patients to be informed. This systematic review examined the effectiveness of MBIs for late-life anxiety.

**Methods:** Randomized control trials (RCT) represent the gold standard of testing efficacy and follow the highest ethical standards of research. This review examined only RCTs because this approach offered transparency and a reduced risk of subjectivity bias in the selection of studies for inclusion. The poster will highlight the key features of this JBI registered systematic review including the background and prevalence of late-life anxiety, as well as the impact of anxiety on functioning. The poster will guide each participant through the stages of the systematic review. The synthesis of findings will discuss the key features of each of the included studies and conclude with recommendations based on the results.

**Results:** Participants will appraise a knowledge base of recent international RCT studies of MBIs for treatments of late-life anxiety. Participants will be able to reflect on the ethical implications of these findings on their research and clinical practice.

**Conclusions:** Findings of this systematic review showed that MBI appear to consistently lower rates of late-life anxiety, and show a promising trend of reduction in symptoms. MBIs can be delivered virtually, which presents opportunities for ethical and equitable access to healthcare in our post-pandemic world.

**CATEGORY: Poster Presentation****Development and Utilization of Older Adult Specific Psychopharmacology Resources Across Canada***Joanne Man-Wai Ho, Sophiya Benjamin, R. Jack Bodkin, Tony Antoniou, Meaghan Kemp, Angela Millson, Pam Howell, Megna Patel, Sandra Zaikos, Maha Ghannam, Karen Cameron, Shazia Khokhar, Danielle Yantha, Jennifer Man-Han Tung*

**Background:** Older adults are at increased risk of adverse drug events due to age-related changes to pharmacology, multimorbidity and polypharmacy. Drug information focused on older adults has the potential to reduce errors in prescribing and

monitoring in this population. We therefore used rapid review methodology to create drug information resources focused on older adults and sought to characterize the use of geriatric psychopharmacology resources among Canadian clinicians.

**Methods:** Medications for geriatric-focused drug summaries were prioritized by risk of harm in older adults, and frequency of use based on consults to GeriMedRisk, an interdisciplinary consultation service that supported older adults in Ontario, Canada. Rapid review literature searches were performed in duplicate by pharmacists and reviewed by a geriatric psychiatrist when necessary. Information included evidence of comparative risk and benefit, pharmacology, drug interactions and monitoring, with an emphasis on findings unique to older adults. Subsequent refinement of each psychotropic resource occurred during interdisciplinary rounds. In addition to providing these drug summaries as consult-based education, they were also made available through a web-based knowledge portal to increase clinician access.

**Results:** Between April 1, 2021 to March 31, 2022, geriatric pharmacologic resources for 44 distinct psychotropics were available on the GeriMedRisk knowledge portal as a text document and/or infographic; and accessed by 231 unique Canadian clinicians (73(31.6%) physicians, 113(48.9%) pharmacists, 31(13.4%) nurse practitioners and 14(6.1%) nurses. Forty-four (19%) requests were related to patient care. Donepezil, risperidone and quetiapine were most commonly requested.

**Conclusions:** Geriatric psychopharmacology resources generated through rapid review methodology are of interest to clinicians across Canada.

**CATEGORY: Poster Presentation****Brain Health and Cognitive Reserve: the Impact of Exercise on Brain & Aging***Sivan Klil-Drori, Katie Bodenstein, Johanna Gruber, Magnus Bein, Soham Rej, Harmehr Sekhon*

**Background:** Over 500,000 Canadians have been diagnosed with dementia, costing over \$10 billion annually. Improving brain health may prevent and/or postpone cognitive decline, yielding significant personal and economic value. Exercise is a simple, accessible, and low-cost method of maintaining cardiovascular health. In-depth understanding for the neuroprotective mechanisms of exercise may assist in promoting brain health and cognitive reserve.

**Methods:** This is a narrative review exploring the impact of exercise on various brain structures and functions. We searched MEDLINE, PsycINFO, EMBASE and SCOPUS data bases from inception. Key search terms included: physical activity, exercise, neuroanatomy, neurophysiology, neurovascular, cognition, cognitive functions; relevant studies were reviewed and evaluated.

**Results:** Over 2,000 studies were found. We focused on clinical trials exploring exercise, brain structures, functions, and cerebrovascular mechanisms. Exercise is shown to affect the brain through the following cascade: increased heart-rate directly increases cerebral blood-flow and neuronal metabolism which increases oxygen extraction and glucose utilization in the brain. This process promotes neuronal health through: (1) enhancement of neurotrophic factors such as IGF-1, BDNF and others, (2) secretion of neurotransmitters, including dopamine, norepinephrine, and serotonin, (3) neuro-anatomical and neurophysiological changes such as increased hippocampal volume, improved connectivity and density of the white and grey matter. Exercise has also shown clinical benefits, such as maintaining cognitive functions, mental health, and reducing risk of cognitive decline and dementia in later in life.

**Conclusions:** The literature describes specific mechanisms by which exercise modifies brain function and promotes brain health, which is vital in maintaining late life mental health and cognitive reserve.

### CATEGORY: Poster Presentation

#### **Aging and Technology: If a Virtual Tool is Good for Online Shopping Does it Mean it is Good for a Virtual Medical Appointment?**

*Sivan Klil-Drori, Christina Rigas, Johanna Gruber, Soham Rej, Harmehr Sekhon*

**Background:** Accessibility to virtual healthcare facilitates remote healthcare which could benefit the elderly population. Approximately 60% of Canadians are using technological tools for everyday activities, e.g. online shopping and banking. However, compared to everyday activities, online healthcare tools are much less used. Identifying causes for this gap may support use of virtual healthcare modalities among the elderly population, which may benefit from remote healthcare specifically given restrictions of the recent COVID-19 pandemic.

**Methods:** We will analyze publicly available data from the Canada Health Infoway database, of 6,921 Canadians across all provinces and territories, including 1,123 Indigenous people. The online survey was conducted between December 2019-February 2020 and is weighted by age, sex, gender, race, ethnicity, region, and income (<https://insights.infoway-inforoute.ca>). This is a retrospective analysis exploring the use of healthcare technology.

**Results:** Primary overview of the Infoway database shows a gap between everyday technology use (60%) versus healthcare technology use (16%). We will present results of analysis for these research questions: (1) What are the elderly population's perceptions, and main challenges for use of virtual healthcare? (2) Are there gaps between First Nations and the Canadian general population's use of virtual healthcare? Results will be available before October 2022.

**Conclusions:** This study will provide fundamental insight into barriers of virtual healthcare use: possible gaps between First Nations and the general population, and potential challenges of its use among First Nations and the elderly population. These insights are the cornerstone for improving access to virtual healthcare among these populations.

### CATEGORY: Poster Presentation

#### **Oral Presentation the Implementation of Gentle Persuasive Approach (GPA) on a Geriatric Mental Health Unit**

*Alison Kokocinski, Susy Santos, Suzanne Dyck*

**Background:** In 2018, as part of a regional healthcare consolidation plan, the Victoria Hospital (VH) became the only hospital in Winnipeg with a specialized Geriatric Mental Health program consisting of 27 beds. This unit is seeing an increasing number of admissions of people living with dementia. Prior to working on this unit, approximately 50% of staff did not have experience working with the geriatric population. Thus, to assist staff in responding effectively to patients verbal and physical expressions, staff will receive full day GPA training focusing on person-centered care that guides participants through responsive behaviours and how to best respond.

**Methods:** All geriatric mental health staff will complete the full day GPA education session. Pre-post questionnaire will be completed by participants.

**Results:** We anticipate that staff member responses to the pre- and post- test will show increased understanding of behaviours post- education compared with pre-education.

**Conclusions:** With the implementation of GPA, we anticipate staff on our geriatric mental health unit will have improved knowledge and confidence when caring for people living with dementia, which will in turn lead to better outcomes for the patient population.

### CATEGORY: Poster Presentation

#### **Results from a Multicenter Open-label Study of Transitioning From Zolpidem to Lemborexant Across 14 Weeks**

*Margaret Moline, Russell Rosenberg, Dinesh Kumar, Carlos Perdomo, Manoj Malhotra*

**Background:** The ability to change insomnia treatment in patients with inadequate response or side effects is important for optimal care. This analysis examined dosing paradigms for transitioning patients from zolpidem (ZOL; immediate- or extended-release) to the dual-orexin receptor antagonist, lemborexant (LEM; 5mg[LEM5] or 10mg[LEM10]).



**Methods:** Adults with insomnia who were intermittent (INT; 3-4 nights/week) or frequent (FREQ; 5 nights/week) ZOL users were enrolled, with 3-week Screening (subjects continued ZOL), 2-week Titration (TITR), 12-week Extension (EXT), and 4-week Follow-up periods. Cohort-1 began TITR with LEM5 and comprised INT-ZOL users and subjects with one week each INT- and FREQ-ZOL. Cohort-2 comprised FREQ-ZOL users, randomized 1:1 to LEM5 or LEM10. Subjects successfully transitioning to LEM entered EXT. LEM dose changes were allowed during TITR (only one) and EXT. The primary endpoint was the proportion of subjects who transitioned to LEM upon TITR completion. Treatment-emergent adverse events (TEAEs) were assessed.

**Results:** Of 53 subjects enrolled (Cohort-1, n=10; Cohort-2, n=43), 43/53(81.1%) transitioned successfully to LEM upon TITR completion; all 43(100.0%) entered EXT wherein 41/43 received treatment, with 38/41(92.7%) completing EXT. At the end of EXT, 25/41(61.0%) subjects were receiving LEM10 and 16/41(39.0%) LEM5. TEAEs were mostly mild/moderate and more common with LEM10 than LEM5 across TITR/EXT; somnolence (n=4) and abnormal dreams (n=4) were most common.

**Conclusions:** These results indicate that patients with insomnia can transition directly from ZOL to LEM, providing an approach to managing this transition and guidance to clinicians when discussing the process with patients. LEM was well tolerated.

## CATEGORY: Poster Presentation

### Patient-Reported Experiences Associated with Falling Asleep/Sleep Onset in an Open-Label Study of Lemborexant and Zolpidem

*C. Brendan Montano, Manoj Malhotra, Dinesh Kumar, Carlos Perdomo, Margaret Moline*

**Background:** Patients prescribed medications for insomnia may change them for reasons including inadequate clinical response or side effects. Open label study E2006-A001-312 (NCT04009577) examined transitioning patients with insomnia disorder from zolpidem (ZOL) to lemborexant 5mg (LEM5) or 10mg (LEM10). Here we examined patient-reported experiences associated with falling asleep while taking each medication in frequent (5 nights/week) ZOL users.

**Methods:** Adults with insomnia who used ZOL intermittently (not reported here) or frequently were enrolled. The study included a 3-week Screening Period (subjects continued ZOL) and 2-week Titration Period (TITR). Frequent ZOL users (randomized 1:1 to LEM5 or LEM10) completed the Sleep Drug Experience questionnaire at end of Screening and TITR for ZOL and LEM, respectively.

**Results:** Thirty-eight and 35 subjects completed the questionnaire for ZOL and LEM, respectively. Experiences during

initial sleep onset endorsed by 50% of subjects for ZOL and LEM, respectively, included: drowsiness, grogginess, sleepiness (76.3% vs. 82.9%); feeling relaxed/calm (84.2% vs. 85.7%); falling asleep so quickly that you don't remember falling asleep (68.4% vs. 74.3%); difficulty with remembering details of the night right before falling asleep (60.5% vs. 51.4%); feeling sedated (63.2% vs. 60.0%); dreams (76.3% vs. 80.0%); and feeling peaceful (65.8% vs. 85.7%). Two experiences were reported by 50% of subjects for LEM only: lightheadedness (44.7% vs. 51.4%) and feeling of floating (47.4% vs. 57.1%).

**Conclusions:** Frequently endorsed experiences during initial sleep onset were similar for ZOL and LEM. These results could help guide clinicians in discussions with patients when considering transitioning to LEM.

## CATEGORY: Poster Presentation

### Associations Among Dorsolateral Prefrontal Cortex Thickness, Surface Area, and Neuroplasticity in Patients with Alzheimer's Dementia

*Kanza Naveed, Neda Rashidi-Ranjbar, Sanjeev Kumar, Reza Zomorodi, Daniel M Blumberger, Benoit H Mulsant, Bruce G Pollock, Aristotle N Voineskos, Tarek Rajji*

**Background:** Patients with Alzheimer's disease (AD) have impaired plasticity in the dorsolateral prefrontal cortex (DLPFC) as measured using Paired Associative Stimulation-Electroencephalography (PAS-EEG). This impairment could be rectified in response to delivering repetitive PAS (rPAS) to the DLPFC over two weeks. AD patients also have reductions in DLPFC thickness and surface area. DLPFC thickness and surface area could affect DLPFC plasticity and response to rPAS. Thus, in AD participants who received PAS-EEG, we will assess whether there is an association between DLPFC plasticity and DLPFC thickness or surface area. In addition, we will examine whether baseline DLPFC structural measures moderate change in DLPFC plasticity following an rPAS course.

**Methods:** We will use data from randomized controlled trial AD participants who had a baseline brain MRI and DLPFC plasticity measured using PAS-EEG. Participants were randomized (1:1) to receive a 2-week course of rPAS or control rPAS (rPAS-C). One day following this course, their DLPFC plasticity was reassessed using PAS-EEG. Regression analyses will be used to assess the above research questions with DLPFC plasticity as the dependent variable and DLPFC thickness and surface area as the main independent variables.

**Results:** Data from 32 AD participants including 15 men and 17 women (mean [SD] age = 76.3 [6.3] years) who received either rPAS or rPAS-C and had follow-up PAS-EEG will be analyzed. Results of the analyses will be presented at the poster session.

**Conclusions:** We will discuss the findings and their implications on the contributions of DLPFC structure to DLPFC plasticity in patients with AD.

### CATEGORY: Poster Presentation

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#### **Best Practices in the Implementation of Electroconvulsive Therapy for Patients Experiencing Behavioral and Psychological Symptoms of Dementia: a Systematic Review**

*Aditya Nidumolu, Daniel Kapustin, Sameh Hassan, Shabbir Amanullah*

**Background:** Electroconvulsive Therapy (ECT) has established efficacy in treating Behavioral and Psychological Symptoms of Dementia (BPSD). Despite this, there are no guidelines discussing how to implement ECT for this patient population.

**Methods:** A systematic review was conducted to identify trials, reviews, and commentaries discussing the use of ECT for BPSD. Findings were combined using a framework synthesis approach and informed the design of a three-round, modified Delphi consensus. In round one, panelists will provide open-ended responses to best practices to using ECT to treat BPSD. In round two, consensus statements generated from round one and the systematic review will be shared with panelists who will rate them on a five-point scale. Statements that achieve over 60% agreement will be used to synthesize a treatment protocol that will be reviewed and modified by panelists during the round three video-conference meeting.

**Results:** 26 studies were included in the systematic review. These included 7 studies focused on depression, 7 studies focused on agitation, and 12 studies not focusing on any specific BPSD symptom. These studies overall find that ECT can be safely administered for patients experiencing BPSD. Completion of the Delphi panel is pending at this time.

**Conclusions:** While the present study aims to generate consensus on best practice treatment protocols, further research is needed to characterize the benefits and risks of ECT. In particular, future studies will benefit from reporting their ECT protocol, providing longitudinal follow-up, and describing the role of psychotropic medications as adjunct treatments.

### CATEGORY: Poster Presentation

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#### **Virtual Care and the Vulnerable Senior**

*Katelyn Reynolds, Vanessa Thoo*

**Background:** The COVID-19 pandemic has resulted in a drastic change in the provision of psychiatric care with a significant increase in the use of virtual care platforms. The evidence suggests that this can be used successfully to provide support to caregivers and patients with dementia with some

limitations. In particular, the reliance of our assessments on collateral from caregivers may have implications in regards to potential victimization of vulnerable seniors.

**Methods:** We will discuss two cases involving vulnerable seniors with dementia who received virtual psychiatric care via telephone. Both involved marginalized or isolated seniors with a concern for possible elder abuse. The literature exploring the feasibility of virtual care in patients with dementia will be reviewed and challenges will be discussed.

**Results:** Virtual care including telephone visits have the potential to augment care provided to patients with dementia. There are many benefits such as limiting travel time and facilitating increased access to specialist care. Additionally, virtual care may facilitate enhanced caregiver support and improve patient and family satisfaction. We present two clinical cases where concerns were raised about the patient's Power of Attorney (POA) with regards to decision-making capacity and ability to provide an accurate history. The recognition of possible elderly abuse may have been delayed or missed due to the use of virtual care over the phone.

**Conclusions:** The onset of the COVID-19 pandemic has led to the increased use of virtual care. Elderly patients with dementia may be at increased risk for victimization given their vulnerability, social isolation and reliance on caregivers.

### CATEGORY: Poster Presentation

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#### **A Friendly Ear for Mental Health: Predictors of Response to a Novel Telehealth Intervention for Older Adults (TIP-OA) for Stress and Mental Health Symptoms**

*Christina Rigas, Paola Lavin Gonzalez, Harmehr Sekhon, Soham Rej*

**Background:** The pandemic increased older adults; risk of experiencing social isolation, stress, and mental health symptoms, and has limited health and social services. There is thus an urgent need for support for this population. The Telehealth Intervention Program for Older Adults (TIP-OA) is a volunteer-based program providing weekly friendly phone calls to older adults since 2020. We aimed to identify predictors of intervention response based on participant baseline mental health risk and demographic characteristics to help maximize the program's efficacy, and detect vulnerable subgroups who need additional/alternate support.

**Methods:** This was a prospective cohort study. TIP-OA participants (n=112, aged 60+) were assigned clinical risk levels at intake (low, high). Demographic information and mental health outcomes were measured at baseline and 8-weeks. We aimed to identify whether: 1) baseline risk level was associated with improved mental health outcomes at 8-weeks follow-up for stress (primary outcome), depression, anxiety, and fear of COVID-19 (secondary outcomes), and 2) baseline

demographic characteristics (age, gender, education level, etc.) were associated with improvement in these mental health outcomes.

**Results:** We are analyzing the collected data and anticipate results by May 2022.

**Conclusions:** We anticipate that TIP-OA will be particularly beneficial for improving all outcomes for the high risk level groups at 8-weeks. High-quality, real-time evidence about predictors of response to this novel intervention will be generated, allowing for the translation of these findings to the application and further development of TIP-OA or related intervention on a larger scale.

### CATEGORY: Poster Presentation

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#### Virtual Healthcare for All: Accessibility and Use of Telehealth Among Canadian Older Adults

*Christina Rigas, Sivan Klil-Drori, Harmehr Sekhon, Soham Rej*

**Background:** The COVID-19 pandemic has increased the risk of older adults not receiving important and necessary healthcare services. The use of telehealth, which involves the delivery of health services (diagnosis, prevention, treatment) through telephone and digital communication technologies, has increased during the pandemic. Telehealth has been found to be a beneficial and viable alternative to in-person healthcare. Given the increased risks to older adults; health and healthcare accessibility brought on by the pandemic, examining the preferences and accessibility of this alternative mode of healthcare for older adults is essential.

**Methods:** Through a retrospective study, we aim to 1) address the possible benefits and challenges associated with telehealth use, and 2) understand the preferences and accessibility of telehealth among Canadian older adults. We will analyze data from Canadians aged 65+ in the Canada Health Infoway database. This database contains data from 12 052 Canadians from all provinces and territories that was collected from July to August 2021, and is inclusive of all genders, sexual orientations, races and ethnicities.

**Results:** Results will be available before October 2022.

**Conclusions:** This study will be an important step towards 1) addressing the benefits and challenges of using telehealth, 2) identifying preferences and accessibility of telehealth among older adults. Bringing these findings to light can play a key role in addressing barriers and suggesting potential solutions for improved use and accessibility of telehealth among Canadian older adults.

### CATEGORY: Poster Presentation

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#### Methodological Review Identifies Heterogeneity in Outcomes Measured in Geriatric Depression Clinical Trials

*Myanca Rodrigues, Zuhayr Syed, Pegah Ghiassi, Alexander Dufort, Nitika Sanger, Stephanie Sanger, Balpreet Panesar, Alessia D'Elia, Sameer Parpia, Zainab Samaan, Lehana Thabane*

**Background:** Heterogeneity in the use of outcomes across clinical trials creates challenges for the interpretation of results regarding intervention effectiveness. Core outcome sets (COS), a minimum set of outcomes that must be reported in trials, have been proposed as a viable solution to address inconsistency in the selection of outcomes. We conducted a methodological review to synthesize the definitions and measurement of outcomes reported in trials for older adults with depression, which represents the first step towards the development of a COS.

**Methods:** We searched the MEDLINE, EMBASE, PsycINFO, and CENTRAL databases, and conducted forward and backward citation tracing of included studies. Trials published between 2011 and 2021 were included if they assessed the effectiveness of any intervention for treating older adults with depression. Identified outcomes were thematically grouped and mapped to a core outcome-domain framework, commonly used in other COS initiatives.

**Results:** Fifty-one trials met our inclusion criteria, and reported 264 total outcomes, which were grouped into 92 unique terms. Most outcome terms mapped to the physiological/clinical (62%) domain. No trial reported outcomes which mapped to all five core domains. Depressive symptom severity, reported in 37/51 trials (73%), was measured using 14 different outcome measurement instruments.

**Conclusions:** The considerable range and variability in reported outcomes indicate that trialists are not selecting outcomes based on what is most useful to evidence users, and limits the ability to translate research findings into clinical practice. A COS with clinician and patient input is needed to ensure reproducibility, and enhance comparison and synthesis of findings from geriatric depression trials.

**CATEGORY: Poster Presentation****Dementia Care Partners and Others Highly Value iGericare E-Learning: Pilot Evaluation Using the Information Assessment Method**

*Andrew Scott, Stephanie Ayers, Roland Grad, Pierre Pluye, Richard Sztramko, Alexandra Papaioannou, Sharon Marr, Anthony Levinson*

**Background:** Care partners of people living with dementia may benefit from online education. We developed iGericare.ca, an award-winning internet-based platform with 12 multimedia e-learning lessons about dementia. Our objective was to evaluate impact from the perspective of the users.

**Methods:** From March 2021-February 2022 data was collected upon lesson completion. We used the Information Assessment Method for patients and consumers (IAM4all) adapted for dementia care partners. The IAM4all is a validated questionnaire that assesses outcomes of online health information.

**Results:** 356 responses were collected, with a 94% survey completion rate; average time spent was 3 minutes and 10 seconds. 45% identified as family or friend care partner, 22% as an individual concerned they may have mild cognitive impairment or dementia. 94% identified the lesson as relevant (29%) or very relevant (65%). 99% understood the lesson well or very well. Respondents were motivated to learn more (57%), learned something new (53%), validated what they do (53%), reassured (49%), or refreshed their memory (37%). 98% reported their intention to use a lesson, including: to better understand something (70%), discuss the information with someone else (52%), do something as planned (30%) or do things differently (33%). Most free text comments had a positive sentiment.

**Conclusions:** Users identified iGericare as relevant, useful, and beneficial using the IAM4all. To our knowledge, this is the first time a validated tool like the IAM4all has been used to assess internet-based dementia education resources. A randomized controlled trial to study impact on caregiver burden and self-efficacy is planned.

**CATEGORY: Poster Presentation****Isolating Together During COVID-19: Mental Health Effects of a Telehealth Intervention Program for Older Adults (TIP-OA)**

*Harmehr Sekhon\*, Paola Lavin\*, Blanca Vacaflor\*, Christina Rigas, Karin Cinalioglu, Katie Bodenstern, Elena Dikaios, Marim Ibrahim, Florence Coulombe, Allana Goodman, Magnus Bein, Neeti Sasi, Johanna Gruber, Jade Se, Chesley Walsh, Rim Nazar, Cezara Hanganu, Sonia Berkani*

**Background:** A pressing challenge during the COVID-19 pandemic and beyond is to provide accessible and scalable mental health support to isolated older adults in the community. The Telehealth Intervention Program for Older Adults (TIP-OA) is a large-scale, volunteer-based, friendly phoning program specifically designed to address this unmet need, which has served 800 older adults since April 2020.

**Methods:** A prospective cohort study of 112 participants aged  $\geq 60$  years old was conducted in Quebec, Canada (October 2020-April 2021). The intervention consisted of weekly friendly phone calls from trained volunteers. Stress, depression, anxiety, and fear surrounding COVID-19 were assessed at baseline, 4 and 8-weeks. Additional subgroup analyses were performed with participants with higher baseline scores.

**Results:** The subgroup of participants with higher baseline depression scores ( $\text{PHQ9} \geq 10$ ) had significant improvements in depression scores over 8-weeks (mean change score = -2.27 ( $\pm 4.76$ ), 95%CI [-3.719, -0.827],  $p=0.003$ ). Similarly, participants with higher baseline anxiety scores ( $\text{GAD7} \geq 10$ ) had an improvement over 8-weeks ( $p=0.6$ ). Moreover, despite peaks in the pandemic and related stressors, our study found no significant ( $p \geq 0.09$ ) increase in stress, depression, anxiety or fear scores, which might suggest that the intervention could play a role in stabilizing the mental health of isolated older adults.

**Conclusions:** In older adults with higher baseline depression or anxiety severity ( $\text{PHQ9} \geq 10$  or  $\text{GAD7} \geq 10$ ), this scalable, volunteer-based, friendly telephone intervention was associated with decrease in scores.

**CATEGORY: Poster Presentation****Virtual Trigger Room—an Educational Tool to Identify and Mitigate Environmental Triggers of Responsive Behaviours in Persons with Dementia**

*Lisa Sokoloff, Kataryna Nemethy, Yael Goldberg, Anna Berall, Jahnel Brookes, Anna Santiago, David Conn*

**Background:** Responsive behaviours are common in persons with dementia (PWD) and can pose safety risks to PWD and those around them. The aim of this study was to develop and evaluate an online educational tool to educate and empower participants to recognize potential environmental triggers of responsive behaviours and provide preventative intervention strategies.

**Methods:** This new educational tool, called the Virtual Trigger Room, is a 360-degree, self-guided educational tour through the living space of a PWD that allows users to identify potential environmental triggers and select environmental adaptations to mitigate or prevent the responsive behaviour. A total of 21 healthcare providers and 62 students evaluated the educational tool through online pre- and post-surveys.

**Results:** Students self-reported that their levels of knowledge about responsive behaviours, and confidence in their ability to recognize environmental triggers and best practices to mitigate responsive behaviours increased significantly from pre to post ( $p < .0001$ ). Healthcare providers; self-reported levels of knowledge and confidence were similar at pre and post. Participants reported the virtual experience and the interactive component of the educational tool enhanced their learning.

**Conclusions:** They reported the virtual experience and the interactive component of the educational tool enhanced their learning.

## CATEGORY: Poster Presentation

### How Does a History of Excessive Alcohol Consumption Affect Behavioral and Psychological Symptoms of Dementia (BPSD)?

*Emytis Tavakoli, Elaina Niciforos, Parmida Amid, Amer Burhan, Sara Colman, Li Chu, Simon Davis, Peter Derkach, Philip Gerretsen, Ariel Graff-Guerrero, Maria MHusain, Zahinoor Ismail, Donna Kim, Linda Krisman, Soham Rej, Benoit Mulsant, sanjeev Kumar, Vasavan Nair, Aviva Rostas, David Streiner, Lisa Van Bussel, Tarek K. Rajji*

**Background:** Behavioral and psychological symptoms of dementia (BPSD) are common symptoms within the population of institutionalized individuals having Alzheimer's disease (AD) and other forms of dementia. Excessive alcohol consumption (EAC) increases the risk for AD. Literature is scarce regarding the effects of alcohol on BPSD. We explored the connection between the history of a lifetime (EAC) and BPSD.

**Methods:** We obtained baseline data from the Standardizing Care for Neuropsychiatric Symptoms and Quality of Life in Dementia (StaN) study, a multisite trial conducted in Canada. StaN included participants with AD or mixed dementia with clinically significant BPSD. Neuropsychiatric symptoms were assessed using the Neuropsychiatric Inventory Clinician rating scale (NPI-C). The stage of dementia was assessed by the Functional Assessment Staging Tool (FAST). EAC was defined using NIAAA criteria. We used the Kruskal Wallis test to compare NPI domain scores between participants with or without EAC.

**Results:** 194 participants (51% female) were recruited. Mean age in EAC group ( $N = 17$ ) was 72.9 ( $SD=7.0$ ) years, and in non EAC group ( $N = 169$ ) was 81.5 ( $SD=9.5$ ) ( $t_{df}= 4.62$ ,  $P=0.001$ ). The median FAST stage was similar (6d) across both groups. EACs presented with lower levels of agitation  $H(1)=4.0$ ,  $P=0.045$ , and dysphoria  $H(1)=5.1$ ,  $P=0.024$ . However, after adjusting for multiple comparisons there was no significant difference between the two groups.

**Conclusions:** Our preliminary findings show that EAC is associated with younger age in patients with AD but is not associated with a different profile of BPSD.

## CATEGORY: Poster Presentation

### Effectiveness of Daily Home Practice of Informal Mindfulness Based Interventions for Reducing Depression and Anxiety in Older Adults

*Anne-Charlotte Thiffault, Katie Bodenstein, Elena Dikaios, Harmehr Sekhon, Soham Rej*

**Background:** Depression and anxiety are important issues in older adults, with mindfulness-based interventions being a promising approach. While there is data supporting the use of formal mindfulness interventions, the use of home practice of mindfulness on anxiety and depression outcomes remains unknown.

**Methods:** We pooled data from three randomized control trials ( $n=157$ ) that compared mindfulness based interventions (MBIs) to either treatment as usual (TAU) or an active control condition called Health Enhancement Program (HEP). The primary outcome was symptoms of depression (Patient Health Questionnaire (PHQ9)), the secondary outcome was symptoms of anxiety (Generalized Anxiety Disorder 7-Item Scale (GAD7)), and exploratory outcomes included insomnia (Athens Insomnia Scale (AIS)) and quality of life (European Quality of Life (EQ-5D)), all measured at baseline and at week 8. Additionally, minutes of formal and informal mindfulness practice were measured. We aimed to determine whether formal practice is needed in addition to informal, to see improvements in these outcomes.

**Results:** The initial results suggest that home practice of mindfulness may improve anxiety symptoms in older adults undergoing MBIs. The data analysis is still ongoing and the full results will be available at the CAGP conference in October 2022.

**Conclusions:** Home practice of mindfulness appears to improve anxiety above and beyond the benefits of participating in a mindfulness-based intervention program. If conclusive, this data will show that informal practice is an important component of mindfulness based interventions.

## CATEGORY: Poster Presentation

### Capacity and Severe and Persistent Mental Illness in Long-Term Care

*Vanessa Thoo, Leslie Giddens-Zuker*

**Background:** Patients with SPMI and limited insight present as uniquely challenging for management within the LTC setting. While issues around medication adherence and compliance with geriatric mental health outreach teams (GMHOTS) can be potentially mitigated through community-treatment orders (CTOs), the role for psychiatric involvement when there is significant medical complexity and risk for poor outcomes is not as well-defined.

**Methods:** A case review was conducted with a focus on issues of capacity and SPMI in the LTC setting. We will discuss an interdisciplinary approach in developing a management plan for patients with medical complexity and SPMI.

**Results:** Patients with SPMI can be challenging for their care providers to manage due to concerns about capacity and consent with respect to medical decisions, particularly when there is potential for significant negative health outcomes, including disability and death. As these patients tend to be quite complex in regards to both their physical and mental health, a cautious discussion with families and/or substitute decision makers, as well as consideration for involvement of bioethics or legal teams, can optimize the care of these complex individuals.

**Conclusions:** While recommendations for each patient should be assessed on a case-by-case basis, it is imperative to incorporate the patient's previously established wishes with consideration of both physical and mental health sequelae in discussions of risks and benefits of medication interventions. The GMHOT team can best support these patients and their care providers in engaging in discussions regarding consent and capacity with a focus on the patient's quality of life and goals of care.

### CATEGORY: Poster Presentation

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#### Barriers to Care for Neuropsychiatric Symptoms in Persons Living with Dementia: a Systematic Review and Meta-Synthesis

*Britney Wong, Pauline Wu, Mehul Gupta, Ann Subota, Zahra Goodarzi*

**Background:** Persons with dementia (PWD) experiencing neuropsychiatric symptoms (e.g. depression, anxiety) have worsened cognition and poorer quality of life. There are effective therapies available for neuropsychiatric symptoms, but they are under-used. Accordingly, there is poor understanding of the contextual issues and barriers to care (BTC) for the diagnosis and treatment of neuropsychiatric symptoms among PWD. Our objective is to complete a systematic review and meta-synthesis of qualitative studies examining BTC for neuropsychiatric symptoms in PWD.

**Methods:** We obtained baseline data from the “Standardizing Care for Neuropsychiatric Symptoms and Quality of Life in Dementia” (StaN) study, a multisite trial conducted in the search strategy was developed a priori. We searched MEDLINE, EMBASE, PsycINFO and the grey literature, up to August 25, 2020. We anticipate updating the search. All titles, abstracts, and full texts were reviewed in duplicates. Studies included in the final data extraction will be analysed in duplicates. We will follow the ENTREQ reporting criteria for qualitative syntheses. We will also conduct a meta-study synthesis to focus on the experiences of people in complex environments to inform implementation.

**Results:** After removing duplicates, 14175 articles underwent abstract screening. Most articles were excluded due to a lack of reported BTC. 888 articles were included for full-text screening. We anticipate roughly 50 includes in our final data extraction.

**Conclusions:** We lack qualitative studies involving stakeholder perspectives to understand perceived BTC for PWD experiencing neuropsychiatric symptoms. This study takes advantage of the depth of individual qualitative studies and provides a rigorous synthesis that can be used to operationalize clinical interventions. Therefore, we will explore BTC for neuropsychiatric symptoms among PWD among stakeholders to improve implementation of effective treatments.

### CATEGORY: Poster Presentation

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#### Characterizing the Contribution of Alcohol Use Towards Distinct Neurocognitive Profiles in Individuals with Cognitive Impairment

*Ari B. Cuperfain, Mira Fostoc, Sandra E. Black, Morris Freedman, Tarek Rajji, Stephen Strother, David F. Tang-Wai, Maria Carmela Tartaglia, Sanjeev Kumar, and the TDRA Clinical Research Database Group*

**Background:** Excessive alcohol use is a recognized modifiable risk factor for the development of dementia. The neuropsychological profile of cognitive impairment seen with alcohol use is heterogeneous, reflecting the direct and indirect neurocognitive effects of alcohol. Research is limited in comparing alcohol related cognitive impairment relative to cognitive impairment due to other etiologies. Our objective is to identify unique neuropsychological characteristics of cognitive impairment due to alcohol use.

**Methods:** The Toronto Dementia Research Alliance (TDRA) memory clinic research database was used for this study. This database includes demographic, medical, psychiatric, and substance use histories, and results from neuropsychological testing using the Toronto Cognitive Assessment (TorCA). We conducted 1:1 propensity score matching to generate a matched sample of individuals in whom alcohol was identified as a contributing factor for cognitive impairment and an equal number of individuals without such history but with cognitive impairment due to other causes. We compared total and subdomain scores on TorCA between the groups using two tailed t-tests.

**Results:** There were no significant differences in TorCA sum scores between those with alcohol use history (n = 61) and those without (n = 61). Mean (SD) age for both groups was 68.72 (10.71). Preliminary analyses showed some differences in TorCA subdomains of semantic fluency and forward digit span between the groups. More detailed results will be presented at the meeting.

**Conclusions:** This exploratory investigation suggests that people with alcohol use may have unique neuropsychological characteristics; however this finding needs to be verified in larger well characterized samples.

## CATEGORY: Poster Presentation

### Investigating the Mechanisms Underlying the Association Between Female APOE $\epsilon$ 4 Homozygotes and Increased NPS Burden in Populations at Risk for Alzheimer's Disease

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**Background:** The development of Alzheimer's disease (AD) is influenced by the APOE gene, with the  $\epsilon$ 4 allele being the strongest known genetic risk factor for sporadic AD. Recent studies by our group have suggested that in individuals with AD, there is a female-specific association between APOE  $\epsilon$ 4

homozygotes and increased neuropsychiatric symptom (NPS) burden. This sex-modulated association was also found in patients with mild cognitive impairment (MCI) and/or a history of major depressive disorder (MDD), i.e. groups with an increased risk of developing AD. However, the mechanisms underlying this association remain unclear.

**Methods:** Baseline data will be obtained from the PACt-MD clinical trial, a longitudinal interventional study of transcranial direct current stimulation and cognitive remediation in older adults with MCI and MDD. Demographic data, APOE genotyping, Neuropsychiatric Inventory Questionnaire (NPI-Q) scores, and MRI brain imaging data will be used. Linear regression models will be used to examine 1) the association between cortical thickness and APOE status, stratified by sex, and 2) the association between the cortical thickness and NPI-Q scores.

**Results:** Data analysis is currently underway; results will be presented and interpreted in the context of the existing literature.

**Conclusions:** This study will help elucidate the mechanism underlying the female-specific association between APOE  $\epsilon$ 4 and NPS burden. This would contribute to our understanding of the biological correlates of NPS more generally and inform future research into potential biomarkers of NPS.