ABSTRACTS

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BRIDGING KNOWLEDGE GAPS IN THE DETECTION AND TREATMENT OF NEUROPSYCHIATRIC SYMPTOMS IN DEMENTIA: A REVIEW OF CURRENT EVIDENCE

Chair: Zahra Goodarzi

Summary: There are 500,000 persons with dementia living in Canada. Up to 75% of persons with dementia experience neuropsychiatric symptoms (e.g. agitation, aggression, and depression). Neuropsychiatric symptoms are associated with adverse outcomes including functional decline, earlier nursing home admission, and caregiver burden. Although neuropsychiatric symptoms are common, there are important knowledge gaps in how we detect and treat these symptoms, which creates uncertainty in medical decision-making and practice variation among clinicians. For example, prescribing trends suggest clinicians are increasingly prescribing medications other than antipsychotics (e.g. trazodone) to reduce neuropsychiatric symptoms in persons with dementia. However, we have less evidence supporting the efficacious and safe use of these alternative medications in clinical practice.

We will review current evidence addressing important knowledge gaps in the detection and treatment of neuropsychiatric symptoms in persons with dementia. At the end of this symposium, participants will be able to:

1. Understand which diagnostic tools are most accurate for detecting symptoms of anxiety, depression, agitation, and aggression in persons with dementia
2. Describe the comparative:
   - (a) efficacy of pharmacologic and nonpharmacologic interventions for reducing symptoms of agitation, aggression, and depression in persons with dementia
   - (b) safety (i.e. risk of fracture, falls, stroke, and death) of pharmacologic interventions for reducing neuropsychiatric in dementia
3. Facilitate evidence-based shared decision-making with patients and caregivers using a tool (i.e. rank-heat plot) that ranks the comparative efficacy of pharmacologic and nonpharmacologic interventions across multiple treatment choices and outcomes of interest (i.e. agitation, aggression, depression, fractures, falls, stroke, and death)

Update of the Canadian Coalition for Seniors' Mental Health Guidelines on the Assessment and Treatment of Depression

David Conn, Robert Madan, Cindy Grief, Chris Frank, Lori Amdam, Daniel Blumberger, Kiran Rabheru, Anar Dilara

Background: In 2006 the Canadian Coalition for Seniors' Mental Health (CCSMH) released four sets of national clinical guidelines focused on older adults. Two of these documents have previously been updated, including those on Delirium and Mental Health Issues in Long-Term Care. This workshop will describe the results of an update to the Guidelines on the Assessment and Treatment of Depression among older adults.

Methods: A working group was assembled to take on this task. A systematic search for peer-reviewed scholarly articles was performed in five databases including Medline, PsycINFO, HealthStar, Embase, and Cochrane Library from July 2006 through December 2018. Initial searches yielded 1560 articles. One of the authors conducted multiple phases of title and abstract review to identify 344 articles for full-text review. Following this review 186 articles were selected and made available to the working group members. Members agreed to work individually on specific areas of focus: pharmacotherapy, psychotherapy, depression management in primary care, nursing perspective, repetitive transcranial magnetic stimulation (rTMS), electroconvulsive therapy, and prevention of late-life depression. Members discussed updated recommendations during teleconference meetings and via email.

Results: New and revised recommendations will be discussed, utilizing clinical case vignettes. New recommendations include those on rTMS, exercise and prevention of depression. Revisions to pharmacotherapy and psychotherapy recommendations will also be highlighted.

Conclusions: An updated version of the CCSMH guidelines on the assessment and treatment of depression will be presented. Participants will have an opportunity to provide feedback and discuss implementation approaches.

Are We Over Relying on Subjective Complaints when Assessing Cognition?

Sivan Klil-Drori, Natalie Phillips, Alita Fernandez, Shelly Solomon, Howard Chertkow

Background: Progression of Alzheimer's disease and other types of dementia are commonly conceptualized in a specific order: (1) subjective cognitive impairment: subjective complaints without objective cognitive decline, (2) mild cognitive impairment (MCI): subjective complaints and objective cognitive decline, (3) dementia: objective cognitive decline and functional impairment. However, are subjective complaints always present with cognitive decline? Can MCI present without subjective complaints? Would these considerations change our screening routine?

Methods: We recruited healthy older adults. A shortened telephone version of the MoCA (T-MoCA) was administered to respondents, along with a brief questionnaire regarding their general health and subjective cognitive complaints.

Patients who presented with normal cognition according to T-MoCA were evaluated with a regular face-to-face MoCA in the clinic.

Results: In total, 296 subjects were evaluated: 125 (42% of the cohort) had objective cognitive impairment according to either T-MoCA or full MoCA. Of those, 90 had subjective concerns and would meet MCI criteria, but 35 (28%) did not have subjective concerns.

Conclusions: Close to 1/3 of those showing objective cognitive loss on screening lacked subjective complaints. This suggests that cognitive impairment may present without subjective complaints. Possible explanations are as follows:

1. Existing non-cognitive factors impact performance on cognitive testing (e.g., stress, fatigue, pain, anxiety, etc.) which may show a false negative score in a cognitively intact person.
2. False-positive presentation of a person with cognitive decline (e.g., lack of insight, various personality characteristics, etc.).

Therefore, over relying on subjective complaints should be considered in cognitive screening.

A New Integrated Community Collaborative Care Model for Seniors with Depression or Anxiety Symptoms and any Chronic Physical Condition

Richard Shulman, Reenu Arora, Amna Ali, Julia Ma, Elizabeth Mansfield, Sara Martel Jane Sandercock, Judith Versloot

Background: We report on the feasibility and effectiveness of a new integrated community based collaborative care model in improving the health of seniors age 65 and over with depression or anxiety symptoms and any co-existing chronic physical health conditions.

Methods: The Trillium Health Partners (THP) Medical Psychiatry Alliance (MPA) Seniors Outpatient Collaborative Care Project developed a model of integrated geriatric medicine and geriatric psychiatry community collaborative care. In the model, care managers (CM) provide holistic initial and follow-up assessments based on treat to target rating scales and provide a psychotherapy based (ENGAGE) intervention. Care managers present cases in a structured case review format to a geriatrician and geriatric psychiatrist. Recommendations are communicated by the CM to the patient's primary care provider.

Results: 187 patients were evaluated. The average age was 80 years old and 36% were female. Two thirds were experiencing moderate to severe depression. This proportion decreased significantly to one third at completion. Patients had on average 6 visits with the CM. All patients were managed by the CM without the need to see a specialist. Patients, family caregivers, team members and referring physicians participated in qualitative interviews.

Conclusions: The evaluation shows that the program is feasible and effective as patient outcomes improved.

Standardizing Care for Neuropsychiatric Symptoms and Quality of Life in Dementia (StaN): Opportunities and Challenges of Implementing Algorithmic Care Pathway in Long Term Care Setting

Nilah Ahimsadasan, Steve Crawford, Sarah Colman, Peter Derkach, Nancy McKeough, Aviva Rostas, Zahinoor Ismail, Amer M Burhan, The StaN Study Group

Background: 80% of patients with Alzheimer's disease experience neuropsychiatric symptoms, with Alzheimer disease agitation and aggression (AD-AA) being the most burdensome of these symptoms. Management of AD-AA with Psychotropics polypharmacy and underuse of non-pharmacological interventions continues to be a significant problem. To address these concerns, we have developed an algorithmic approach to non-pharmacological interventions, psychotropics use, combined with standardized assessments and measurement-based decision making referred to as the Integrated Care Pathway (ICP). Algorithmic treatment for mental disorders has been shown to lead to superior care outcomes.

Methods: The StaN study aims to recruit 220 participants with AD-AA (110 inpatient and 110 in LTCFs) to be randomized to ICP or Treatment-As-Usual (TAU). Non-pharmacological interventions are conducted in the first 3 weeks of the study. If the latter is unsuccessful, the following 8 weeks consist of systematic pharmacological interventions.

Results: LTCFs in Toronto, London and Calgary have been actively recruiting participants and so far, we were able to recruit about 50% of the intended sample with roughly equal distribution between ICP and TAU. In this paper we will discuss challenges and opportunities in implementing the ICP in LTC setting.

Conclusions: Despite the potential benefits of the ICP approach, it is important to consider its feasibility of implementation, which will be a key factor in the subsequent phase of knowledge translation.

Development and Dissemination of an Ethical Guidance and Person-centred Isolation Care Planning Tool to Support the Care of People with Dementia During the COVID-19 Pandemic

Andrea Iaboni, Alisa Grigorovich, Claudia Barned, Kevin Rodrigues, Pia Kontos, Charlene Chu, Arlene Astell, Dementia Isolation Toolkit Team

BACKGROUND: The impact of COVID-19 on long-term care homes has been devastating. Many barriers exist in long-term care to prevent the isolation of suspect or confirmed COVID-19 cases. Furthermore, most residents of long-term care have dementia and cannot understand or easily follow isolation procedures. Our aim was to develop a guide for long-term care to address the ethical challenges associated with isolating dementia patients during the pandemic.

Method: We struck a working group consisting of researchers and clinicians in mental health, psychiatry, nursing, geriatrics, and gerontology along with clinical ethicists. We developed partnerships with local agencies supporting best practices in long-term care. The literature on pandemic ethics was reviewed and synthesized in a plain-language document, which was then reviewed by our partners and stakeholders.

Results: The final ethical guidance tool includes a discussion of the ethics around infection control measures in a pandemic, an ethical decision-making tool, and a person-centred isolation care planning tool. The ethical guidance tool has been downloaded more than 2000 times since it was published (bit.ly/dementiatoolkit), and has been disseminated internationally. The worksheets are being used during outbreaks to support care and decision-making, as well as proactively, to prepare for outbreaks by developing isolation care plans.

Conclusions: There is a need for support for ethical decision-making in the context of a pandemic, particularly in settings such as long-term care. Future studies will examine the impact of the tool in addressing moral distress in health care providers in long-term care.

Dementia Doesn't Stop and Neither Do We: Establishing a COVID-19 and Dementia Task Force

Dr. Saskia Sivananthan, Dr. Serge Gauthier,
Dr. Manuel Montero-Odasso

Background: COVID-19 has exposed many gaps in dementia care across Canada's health and long-term care systems. In response, the Alzheimer Society of Canada convened the COVID-19 and Dementia Task Force, a team of leading researchers, clinicians and people with lived experience from across the country.

Method: The Task Force has established multiple working groups to address pandemic-related issues such as: intensive care practices toward people with dementia, telehealth assessments, the impact of the pandemic on research, ethical issues, mortality due to COVID-19, the long-term care impact, and knowledge translation for people with dementia and caregivers.

Results: Drawing on their expertise, the Task Force aims to: 1) identify the gaps in our healthcare system that have left many Canadians living with dementia in need of help; and 2) create solutions that will immediately improve care and support for people with dementia and caregivers.

While this work is ongoing, one example of an outcome from the Task Force is the development of a set of guidelines for frontline healthcare staff, entitled: "Allocating Scarce Resources to People with Dementia During a Pandemic." These guidelines were designed to support staff in difficult decisions about the allocation of lifesaving resources. Through these guidelines, the human rights and dignity of people with dementia can be protected.

Conclusion: In collaboration with the Canadian Consortium on Neurodegeneration in Aging, the College of Family Physicians of Canada, the Canadian Geriatrics Society and others, the Task Force is working to ease the impact of the pandemic on the future of our healthcare system.

Supporting the Mental Health Needs of Long-Term Care Staff during the COVID-19 Pandemic

Aviva Rostas, Alvin Keng, Tarek Rajji

Summary: The COVID-19 pandemic has had an unprecedented impact on populations around the world, and has significantly affected long-term care homes (LTC). In Ontario, 313 LTCs have reported outbreaks of COVID-19, with over 1800 resident and 7 LTC staff deaths. Consistent staffing is critical to provide effective care to individuals in LTC, and attending to the needs of staff is essential to prevent their burnout and promote their retention at the homes. In particular, the psychological impact of working in LTC during a pandemic must be recognized and addressed proactively. There are many potential sources of stress for LTC staff including caring for vulnerable and potentially dying residents, keeping abreast of regularly evolving infection control regulations, and worrying about their own health and safety. In response to anecdotal reports of high levels of distress among LTC staff, we are currently piloting a model of virtual group support for frontline staff in three LTCs in Toronto with which we have pre-existing relationships and have historically provide patient level consultation. In this presentation, we will share our experience developing and implementing this model. We will discuss the structure and logistics of setting up virtual mental health support for LTC staff, describe therapeutic interventions utilized, and outline themes emerging in these sessions. We will examine some of the challenges encountered and present data to date of qualitative and quantitative feedback received. Finally, we will discuss potential adaptations and future directions in work looking at the needs of this important group of healthcare workers.

Project ECHO® Care of the Elderly: Response to COVID-19 needs in Long-Term Care

Lisa Sokoloff, Navena Lingum, Raquel Meyer, Sid Feldman, Andrea Moser, Devin Sodums, Shaen Gingrich, Cindy Grief, David Conn

Background: Both residents and healthcare providers in long-term care (LTC) homes have been negatively impacted by COVID-19. To support healthcare providers in LTC build resiliency, strengthen their LTC teams, and support residents, we piloted ECHO Care of the Elderly-Long-Term Care (ECHO COE-LTC): COVID-19 with the Ontario Centres for Learning, Research and Innovation in LTC.

Project ECHO (Extension of Community Healthcare Outcomes) is a virtual, capacity-building education program for healthcare providers. In 2018, Baycrest, and North East Specialized Geriatric Centre, implemented “Project ECHO Care of the Elderly” rapidly expanding to three programs: 1) Community-based COE; 2) Long-Term Care; and 3) Dementia.

Methods: ECHO COE-LTC: COVID-19 pilot consisted of four weekly, 60-minute sessions. Topics included: End-of-Life Management for the COVID-positive Resident, Preparing your LTC home for COVID-19, Busting Infection Control Myths, and Anxiety and Stress. We conducted a needs assessment to help develop the program curriculum (N=75). Participants received weekly satisfaction surveys that included open-ended questions about provider practice change through participation.

Results: Approximately 264 healthcare providers across 250 organizations registered for the program. Weekly survey ratings highlighted high overall satisfaction, increase in confidence preparing for, or responding to a COVID-19 outbreak, enhanced clinical practice and knowledge, and desire to disseminate knowledge. Due to the overwhelming success and interest, we added eight additional sessions for 12 total sessions.

Conclusion: ECHO COE–LTC: COVID-19 is especially relevant now during the pandemic. With information about COVID-19 and system practices changing daily, the sessions allow for just-in-time learning and knowledge sharing across the LTC sector.

DEVELOPING NOVEL BIOMARKERS FOR NEUROPSYCHIATRIC SYMPTOMS OF DEMENTIA USING NEUROPHYSIOLOGY, ACTIGRAPHY AND BRAIN IMAGING

Chair: Sanjeev Kumar

Summary: Neuropsychiatric symptoms (NPS) affect majority of patients with Alzheimer’s dementia (AD) at some point in their illness and cause significant distress for patients and their caregivers. Underlying mechanisms of NPS are poorly understood, which limits the development of objective biomarkers for diagnosis and monitoring of the illness and the effect of treatments. Actigraphy can objectively assess motor activity but its relationship with established measures of NPS is not clear. Cortical excitability abnormalities are a topic of increased interest in AD but their relationship with NPS is not well known. Similarly while white matter abnormalities are well known in AD, but the relationship between white matter texture in normal appearing brain matter and the NPS is not clear. In this symposium, we will present data from novel studies using 1) transcranial magnetic stimulation combined with electroencephalography to understand abnormalities of cortical neurophysiology and potential treatment options for NPS due to AD; 2) actigraphy to assess motoric hyperactivity and its relationship with motoric agitation in AD; and 3) structural imaging to assess white matter texture abnormalities and their relationship with delusions in AD. We will discuss implication of these studies in terms of objectively assessing physical symptoms of NPS and their underlying neurophysiological and brain structure abnormalities. This work has important implications for developing evidence based objective biomarkers to diagnose and monitor NPS as well as for development of novel treatment interventions for NPS in AD.

Do White Matter Texture Abnormalities Predict Delusional Severity in a Cognitively Diverse Sample of Older Adults?

Saanika Venkatesh, Mohamad-Ali Bahsoun, Giordano Arezza, Justin Digregorio, Tom A Schweizer, Nathan W Churchill, David G Munoz, Corinne E Fischer, April Khademi

Background: Abnormalities in white matter have been linked to the development of delusions in older persons, although the relationship with white matter texture (WMT) is unclear.

White matter texture is defined as tissue organization in normal-appearing brain matter (NABM) related to overall diffusion capabilities.

Methods: A cognitively mixed sample of older adults with delusions was identified using NPI-Q scores from the ADNI data set. NPI-Q scores were used to derive delusional severity which was ranked from 1-3 (1 being the lowest severity). FLAIR MRI volumes were downloaded for each subject. Subjects and volumes were analyzed in each severity group. FLAIR images of NABM were extracted with validated in-house brain extraction and intensity standardization algorithms. The correlation in the NABM for each FLAIR image was used to generate volume texture maps as per Khademi *et. al*.

Results: The most notable change in WMT occurred between subjects with high delusional severity (group 3) compared to lowest delusional severity (group 1). Group 3 had a higher spatial correlation value of 6.0947 e+03 ± 592.6178 than group 1 with values of 5.7630 e+03 ± 832.5040. Higher values are more indicative of greater spatial correlation among pixels, suggesting less WM structure in the more severe delusion group.

Conclusions: Abnormalities in white matter texture are associated with delusional severity based on our study. Further research in larger samples is required to further validate our findings.

Cortical Excitability and its Relationship with Neuropsychiatric Symptoms in Alzheimer's Dementia—a TMS-EEG Study

Shaylyn Joseph, Reza Zomorrodi, Dunja Knezevic, Daniel M. Blumberger, Zafiris J. Daskalakis, Benoit H. Mulsant, Bruce G. Pollock, Tarek K. Rajji, Sanjeev Kumar

Background: Neuropsychiatric symptoms (NPS) including agitation are common in patients with Alzheimer's Dementia (AD) and result in significant distress to patients and caregivers. Mechanisms underlying NPS are not well known. Some studies have found increased cortical excitability in patients with AD but the relationship between cortical excitability and NPS is not known. We hypothesized that cortical excitability will be positively associated with NPS and negatively with cognition in AD.

Methods: This cross-sectional study included 25 participants (female = 17) with probable AD. Cognition was assessed using Montreal Cognitive Assessment (MoCA) and NPS were assessed using the Neuropsychiatric Inventory-Questionnaire (NPI-Q). NPIQ agitation-hyperactivity domain scores were calculated by combining scores on agitation, aggression, anxiety, disinhibition and irritability domains. TMS was applied to the dorsolateral prefrontal cortex (DLPFC) at a frequency of 0.1 Hz. Electroencephalography was recorded during TMS. Cortical excitability was assessed using rectified area under the curve (AUC) for TMS-evoked potential (TEP) during early (25-80 ms) and late phases (80-200 ms). Individual TEP peak amplitudes were also calculated.

Results: Participants' Mean (SD) age = 74.3(7.1) Years, Mean (SD) MoCA score = 17.5 (4.6). As hypothesized, there was a positive correlation between NPI-Q agitation - hyperactivity domain scores and the TEP early AUC (Spearman's r_s = 0.422, n = 24, p = 0.04) and a negative correlation between MoCA and the TEP early AUC at the DLPFC site of stimulation (Spearman's r_s = - 0.589, n = 24, p = 0.002). There was also a positive correlation between total NPIQ and early TEP (P30) amplitude.

Conclusions: Cortical excitability in the DLPFC is positively associated with NPS and inversely with cognition in AD. Specifically, increased excitability during the early TEP duration suggests potential role of aberrant glutamatergic transmission. These findings may have important implications for developing treatment interventions targeting cortical excitability in AD.

Assessing Agitation using Actigraphy: Correlation with Clinician Rating

Amer Burhan, Amber Knuff, Dallas Seitz

Background: Agitation is an important symptom of dementia. Clinician and/or caregiver rated scales are commonly used to assess agitation but are subject to limited reliability and validity and can add burden on staff caseload. There is a growing interest in using Actigraphy as a tool to assess and monitor agitation of dementia by objectively measuring motor activity with some preliminary evidence of validity.

Methods: This is an extension to our previously published observational, cohort study now involving a sample of older adults with Alzheimer disease and agitation from London Ontario, Canada in hospital and nursing home with severe level of cognitive impairment. Measurements: Baseline characteristics included demographics, severity of cognitive impairment, medical comorbidity, and agitation symptoms assessed using CMAI and NPI. Actigraphy was measured over several continuous days.

Results: Twenty participants were enrolled (mean age=81.3/years, SD=7.97; Male=12; mean MMSE=6.3, SD=5.7; mean CMAI score=66.83, SD=10.79). Pearson correlation coefficient was explored between agitation and Actigraphy measures. We found that total CMAI scores correlated with 24-hours Actigraphy data (r(18)= 51, p= .02), further analysis showed that only physical non-aggressive agitation correlated with 24-hours actigraphy measures (r(18)= 0.49, p=.03), this was mainly related to day-time and evening-time Actigraphy but not overnight.

Conclusions: Actigraphy was correlated significantly and moderately with informant-based methods for measuring physical agitation in individuals with dementia and showed a temporal pattern of activity. Further studies are required to understand the application of Actigraphy as a biomarker for motoric agitation in this population.

Canadian Guidelines for Substance Use Disorders Among Older Adults: From Recommendations to Implementation!

David Conn, Kiran Rabheru, Claire Checkland

Background: Substance Use Disorders (SUD) among older adults have been termed “an invisible epidemic”. These disorders are frequently unrecognized by healthcare professionals, who receive limited relevant training and education. The Canadian Coalition for Seniors’ Mental Health (CCSMH) was funded by the Substance Use and Addictions Program (SUAP) of Health Canada to produce national clinical guidelines on substance use disorders among older adults.

Methods: The guidelines provide evidence-based recommendations to clinicians on the prevention, screening, assessment and treatment of alcohol, benzodiazepine, cannabis and opioid use disorder in older adults. They were formally released in January of 2020 followed by the development of community-based brochures and other knowledge translation materials.

Results: The guidelines are available on CCSMH’s website (www.ccsmh.ca) and summaries were also published in the Canadian Geriatrics Journal. Recommendations include low risk drinking guidelines for older adults, strategies to reduce the prescription of benzodiazepines, descriptions of the clinicians’ role in assessing cannabis use disorder, and recommendations regarding the treatment of opioid use disorder among older adults. CCSMH has also produced webinars, brochures and other material for both healthcare providers and for older adults and their families. Participants will have an opportunity to discuss the clinical applicability of the recommendations and contribute ideas regarding the implementation of the Guideline recommendations in their region or workplace.

Conclusions: As the guidelines are now completed, CCSMH is turning its attention to moving from evidence to action through broad dissemination and extensive knowledge translation (KT) activities.

Optimizing Practices, Use, Care and Services-Antipsychotics (OPUS-AP): a Phase 2 Scale-up to 129 Long-term Care (LTC) Centers in Quebec, Canada

Marie-Andrée Bruneau, Benoit Cossette, Yves Couturier, Suzanne Gilbert, Diane Boyer, Jacques Ricard, Tanya MacDonald, Marcel Arcand, Michèle Morin

Background: Antipsychotics are often used for the first-line management of behavioral and psychological symptoms of dementia (BPSD) despite risks and side effects, and with disregard for guidelines recommendations to prioritize non-pharmacological interventions. In phase 1 of OPUS-AP, conducted in 24 long-term care (LTC) centers in Quebec, Canada, antipsychotic deprescribing (cessation or dose decrease) was achieved in 85,5% of residents in whom it was attempted (Cossette *et al*. JAMDA, 2019).

Methods: Phase 2 of OPUS-AP was conducted in 129 LTC centres in Quebec, Canada, from April to December 2019. OPUS-AP aims at improving resident care through increased staff’s knowledge and competency, resident-centered approaches, nonpharmacologic interventions, and antipsychotic deprescribing in inappropriate indications. Antipsychotic, benzodiazepine, antidepressant prescriptions and BPSD were evaluated every 3 months for 9 months.

Results: At baseline, 10,601 residents were admitted on OPUS-AP participating wards from which 74% had a diagnosis of major neurocognitive disorder (MNCD) and 47% an antipsychotic prescription. The follow-up cohort included 4,087 residents with both MNCD and antipsychotic prescription. Among the 1216 residents still included at 6 months and in whom antipsychotic deprescribing was attempted between baseline and 6 months and, successful deprescribing (at 3- or 6-month follow-up) was achieved in 85.6% (cessation 50.0% or dose decrease 35.6%). No increase in benzodiazepine or antidepressant prescriptions nor worsening of BPSD were observed.

Conclusions: Phase 2 of OPUS-AP confirmed phase 1 results of successful antipsychotic deprescribing with scale-up to 129 LTC centers. Phase 3 of OPUS-AP is underway in 2020 in all of Quebec’s 341 public LTC centers.

Web-based Dementia Care Partner Education Using the iGeriCare Platform: Using Educational Prescriptions in your Practice

Anthony Levinson, Richard Sztramko, Sharon Marr, Alexandra Papaioannou

Background: Most people living with dementia rely heavily on family care partners to provide support. Many recommendations highlight the importance of education that helps care partners develop knowledge and skills to support themselves and a person with dementia in living well. While web-based interventions have been shown to be effective, few high-quality programs are freely available in both English and French in Canada.

Methods: We designed and built the iGeriCare.ca web-based education program, funded through peer-reviewed grants. The open-access program was co-developed by experts in dementia care and e-learning at McMaster University, with extensive input from care partners. It was developed using best practices in e-learning instructional design including extensive user testing with care partners. It consists of 10 multimedia lessons, as well as email-based subscription learning and monthly live-streamed Q&A events. Multimodal approaches to evaluation and dissemination have been used. The French translation is now in development.

Results: Since launching in July of 2018, there have been over 100,000 unique visitors to the site, with extensive use of the lessons and event videos. Net Promoter Scores are consistently 'Excellent' or 'Outstanding' for the site and its educational components, in addition to positive care partner testimonials. Subscribers perform well on the DKAT2 test of knowledge. Qualitative interviews with clinicians suggested the development of an educational prescription app and other strategies to incorporate the resource into clinical workflows.

Conclusions: The iGeriCare site provides an evidence-informed resource that can be prescribed for care partners to complement comprehensive dementia care.

Developing a Prototype for an Open-access e-Module to Enhance Practice Specific to Sexual and Intimate Expressions in People with Dementia

Katelynn Viau Aelick, Dr. Birgit Pianosi, Dr. Lori Schindel Martin, Carey Bruyère, Sylvia Davidson, Dr. Rosemarie Mangiardi, Kristy McKibbon, Hazel Sebastian, Kim Simpson

Background: People living with dementia remain sexual beings who are often capable of sexual and intimate relationships; however, their sexual behaviour is mired in negative discourses. Educational interventions delivered at the organizational level to address these discourses have demonstrated positive correlations between knowledge and attitude, thereby improving organizational culture and enhancing competencies in the provision of person- and family- partnered care.

Methods: The Behavioural Supports Ontario Sexual Expression & Aging Working Group (BSO SEA WG) launched in August 2019 to identify and disseminate emerging/best practices associated with sexual expression among people living with dementia. In November 2019, the BSO SEA WG received a grant from the Regional Geriatric Program – Central (RGP-C) (Ontario) to develop an introductory e-learning module to function as a prototype for subsequent modules. Three BSO SEA Subgroups, with guidance from the BSO SEA WG, are informing the development of this e-module. A total of 256 resources from the grey- and peer- literature have been collected. From this collection, 125 were identified as having direct relevance to the pre-established learning objectives of the e-module, and as such were thematically analyzed.

Results: We will present outcome findings from the open-access launch of the e-module beginning in summer 2020. From de-identified data collected from knowledge users across Canada through the BSO/RGP-C websites, we will discuss demographics and outcomes in order to measure changes in knowledge, attitude and practice.

Conclusions: This e-module will provide care partners with an introduction to a complex topic and stand as a prototype for the development of subsequent modules.

INNOVATIONS IN GERIATRIC MENTAL HEALTH DELIVERY AND RESEARCH IN MIND BODY PSYCHIATRY AND RECREATION THERAPY

Chair: Akshya Vasudev

Summary: We will present data to show that it is possible to scale up and deliver mind-body therapies at a place of convenience for patients presenting with late life mood and anxiety disorders. We will share how The Geriatric Mood Disorders Lab at London, Ontario, trained case managers on Problem Solving Therapy who were then able to successfully roll out this treatment in a real-word community setting. We will demonstrate how the recruitment of a therapeutic recreation specialist (TRS) significantly cut down on patient wait times. We will also share results from research conducted at The Geri-PARTy lab at Montreal, Quebec, who were able to successfully offer a mindfulness based intervention to patients undergoing dialysis undergoing late life mood and anxiety symptoms.

Creating Meaningful Connections: Increasing Awareness and Building Relationships for People with Late Life Depression Through the Lens of a Therapeutic Recreation Specialist

Lisa Joworski

Background: Groups that encourage open dialogue about personal life stories and lessons learned may reduce levels of loneliness and depression in late life. Qualitative comments offered by facilitators and patients, could inform the development of a subsequent clinical trial of therapeutic recreation specialist (TRS) driven groups.

Methods: Over the last 8 years the author, a TRS, has co-facilitated groups with social work, therapeutic recreation and nursing in the hospital outpatient clinic and community. Groups were formed with patient related outcomes in mind including promoting feelings of safety, trust, belonging, relatability and joy in a judgement free environment. Groups have included eclectic and evidence-based strategies including Caregiver Support, Problem Solving Therapy, the Meaning of Life, Java Music Club, Knitting, and, Living Life on Purpose

Results: The author will share non-identifiable qualitative and quantitative data suggesting the value and benefits of such groups. Qualitative data shows patients found it effective to speak openly with others about their personal stories, and welcomed the opportunity to connect with their peers. The author will share anecdotes, stories and learning opportunities from the development, implementation and delivery of these groups. Overall emerging themes of providing a sense of meaning and purpose, belonging and improvement in mood will be discussed.

Conclusions: By facilitating TRS driven groups in the community, we will demonstrate our efforts to meet client's social, emotional, mental, physical and spiritual needs, build a sense of community, increase capacity of community partners and, build stronger relationships within those settings.

Brief Mindfulness Intervention vs. Health Enhancement Program Active Control for Depression and Anxiety in Patients Receiving Dialysis: A Pilot Randomized Controlled Trial

Marouane Nasim, Haley Park, Elena Dikaios, Angela Potes, Clare McVeigh, Mark Lipman, Marta Novak, Emilie Trinh, Soham Rej

Background: 20-50% of patients undergoing dialysis experience depression and/or anxiety, which are associated with increased mortality, health care utilization, and decreased quality of life. Mindfulness-based interventions have been found to be effective in reducing depression and anxiety. However, investigations in patients receiving dialysis are limited by few clinical trials and/or lack of active control comparators.

Methods: We conducted an 8-week multisite randomized controlled trial comparing a brief mindfulness intervention (BMI) vs. an active control (Health Enhancement Program [HEP]) for hemodialysis patients with depression and/or anxiety symptoms. Participants (n=55) were randomized in a 1:1 ratio with stratification by baseline PHQ-9 depression scores (≥10 vs. <10). The primary outcome was change in PHQ-9 scores, with a primary analysis in participants with baseline PHQ-9 ≥10, and a secondary analysis including all participants. The secondary outcome was change in GAD-7 anxiety scores with corresponding primary (GAD-7≥10) and secondary analyses.

Results: Both BMI and HEP reduced depression, but did not significantly differ in the primary analysis (change in PHQ-9 = -7.0 vs. -6.10, p = 0.6). BMI was more effective than HEP in reducing anxiety in the primary analysis (change in GAD-7 = -8.7 vs. -1.4, p = 0.01). Groups did not differ in secondary analyses and exploratory outcomes

Conclusions: In patients undergoing hemodialysis, both BMI and HEP may be helpful interventions for depression, while BMI appears to be superior to HEP for anxiety. Mindfulness-based and other psychosocial interventions may be further examined as effective treatments for patients undergoing dialysis experiencing depression and/or anxiety.

Examining the Feasibility and Effectiveness of Case Manager Delivered Problem Solving Therapy on Late Life Depression in a Real World Setting

Lisa VanBussel, Akshya Vasudev, Emily Ionson, Christine Watt, Dallas Seitz, Mark Speechley

Background: Standard late-life depression (LLD) treatments have limitations. Antidepressants are associated with adverse events and lack of response in up to 60%, while psychotherapies have wait times up to 1 year. Problem-solving therapy (PST) is a psychosocial approach demonstrated to relieve depressive symptoms in LLD. Offering PST training to Case Mangers (CMs) could lead to increase in the access of Canadians with LLD to PST.

Methods: This open label study examined the feasibility and efficacy of implementing CM-delivered group-based PST for LLD in adults aged 60-85 in a real-world community setting. Feasibility measures included recruitment, enrollment and retention rates. Efficacy measures included Hamilton Rating Scale for Depression (HRSD-17), Patient Health Questionnaire (PHQ-9), and Generalized Anxiety Disorder (GAD-7). Trained CMs taught 8 weekly PST sessions at local public libraries to groups of 6-9 participants.

Results: Forty-nine potential participants were approached, 32 were screened, 29 met inclusion criteria and were enrolled, 26 attended PST and were retained until the end-point (week 8). A pre/post paired samples t-test indicated an insignificant decrease in HRSD-17 scores (difference in mean, 2.18; 95% CI -0.07-4.43; P=0.057) and a significant decrease in self-reported depression, (PHQ-9,difference in mean 4.41; 95% CI 2.27-6.56; P=0.000) and anxiety (GAD-7, difference in mean 1.77; 95% CI 0.07-2.96; P=0.042). Repeated measures ANOVA showed PHQ-9 scores continued to improve over the 8-week study period ($F_{3.45,75.88} = 4.99$, P=0.002).

Conclusions: It is feasible to implement CM delivered group-based PST in a community setting. Future studies should consider implementing an active control arm and economic analysis.

Building Capacity for Behavioral Support in Acute Care Settings: Enhancing Knowledge, Skills, and Attitudes Among Health Care Teams

Kiran Rabheru, Jennifer Koop, Vera Hula, Margaret MacKenzie Neil, Nadine Sebahana, Sarah Russell, Milena Rogan

Background: Dementia and behavioral disturbances are common among older persons admitted to acute care hospitals. There are significant concerns about the quality of care that persons with dementia receive while they are hospitalized for acute care. Managing behavioral and psychological symptoms of dementia seems to be particularly challenging for hospital staff.

Methods: This workshop's aim is to build capacity among first line care providers in an acute hospital setting and to support excellence in their ability to care for persons with dementia and BPSD. Based on the framework of Behavior Supports Ontario (BSO) that recognizes that behavior has meaning and that responsive behaviors are often a form of communication of an unmet need of the person with dementia. However, it also highlights the additional unique challenges posed by the acute medical and / or surgical care environment that is needed to care meet the special needs of each patient in this busy and fast paced setting.

Results: Our team has developed a skills workshop for acute care front line staff with three related modules which may be delivered separately by the BSO nurses. The first is an overview of dementia, the second is an interactive skill and simulation-based module to practice hands-on training strategies to care for responsive behaviors; the third is a module to consider pharmacological options. In phase one, we have implemented the workshop, and will provide follow-up coaching, identify champions at the ward level to reinforce and sustain the learning. Phase II will involve training unit behavioral champions to deliver and adapt this workshop for their own specific specialty unit. Providing these workshops will give an opportunity for the Geriatric Psychiatry Behavioral Support nurses to develop their own proficiency and expertise at managing behaviors, as well as their skills at coaching and educating skills while sharing as they share their knowledge and experience with front line staff at The Ottawa Hospital.

Conclusions: It is anticipated that enhancing capacity in front line staff to care for persons with dementia and responsive behaviors in acute care settings will also enhance quality of life of each patient, their family members, as well as hospital staff. Other anticipated benefits include helping the patient's recovery from the acute illness, maintain or preserve their function, reduce need for chemical and / or physical restraints, lessen rates of staff and / or patient injury, reduce patient's hospital length of stay, and reduce cost of care per patient.

Falling Through the Cracks During COVID-19

Cindy Grief, Michael Kirzner, Maria Nelson, Carol Ott, Gary Gallagher

Background: For a person with dementia, navigating the health care system is a challenging endeavor at the best of times; during a pandemic, system issues become magnified. On Baycrest's inpatient geriatric mental health unit, individuals often present with multiple comorbid medical conditions and benefit from a multidisciplinary collaborative approach to care.

Methods: Through photographs and a case review we describe the clinical pathway of an 85 year-old woman with a major neurocognitive disorder who was admitted to Baycrest's inpatient geriatric mental health unit after a forced quarantine for COVID-19 in her retirement home. She presented in great distress with a severe rash and a life-threatening diagnosis of Stevens-Johnson syndrome was considered. Using Calder *et al.*'s Ottawa Morbidity and Mortality (M+M) Model (Calder *et al.*, 2012) we discuss factors that contributed to a missed serious systemic illness.

Results: Prior to admission our patient had briefly visited an ER, but was sent home to her retirement home and placed in isolation with no treatment or capacity to communicate with her family. The rash worsened. On our unit, a multidisciplinary approach led to a primary diagnosis of query bullous pemphigoid and a comprehensive treatment plan was initiated with significant clinical improvement.

Conclusions: The circumstances of COVID-19 amplify issues in how persons with dementia managed in the health care system. The Ottawa M+M model offers an approach for discussing an adverse event and reflecting on system issues. Implications for persons with dementia and their families, including the impact of restricted access, are examined.

The Transformative Effect of Art on Mental Health

Cindy Grief, Merav Gilboa, Kristin Fernandes, Gary Gallagher, Bailey Oake, Taylor Train

Background: During COVID-19, programming on Baycrest's geriatric mental health inpatient unit was significantly reduced. Passes were not permitted and items could not be brought in from outside the hospital. Patients described feeling trapped, distressed and isolated.

Methods: We describe the case of a 65 year-old man with a severe substance use disorder and mood disturbance admitted to Baycrest's inpatient geriatric mental health unit. Illness had curtailed all former pastimes. Personal history revealed a longstanding interest in art and painting. This knowledge created opportunities for engagement. Using images and first person narrative, the impact of meaningful activity on a clinical trajectory during the pandemic is explored.

Results: Using only the most basic of materials, this individual began to paint again. He created a series of watercolours, which he explained were reflective of his mood and his feelings about being in "lockdown". Over time, a significant clinical shift occurred, with an improvement in mood and renewed hope for the future. The change was reflected in the themes of his works, which were compiled into a virtual art exhibit at Baycrest, with personal commentary about art and mental health during the pandemic.

Conclusions: Despite restrictions imposed by COVID-19, through collaboration and creativity, art made a difference. This case illustrates the transformative effect of art on mental health and also highlights the importance of identifying meaningful activities to engage patients during their hospitalization. Always of great importance; this takes on a greater urgency during a pandemic.

Supporting Safe Smoking Cessation for Long-Term Care Residents in Isolation Due to COVID-19

Marilyn White-Campbell, Gurvindar Bar,
Margie Matriano

Summary: Smoking cessation during COVID-19 is not an easy choice for administrators to make. Smoking cessation protocols to ensure compassion in care and comfort of the resident with considerations for reduced risk and safety in long term care homes. The content will include harm reduction practices and is aligned with evidenced based treatment. The presentation will provide details on how support and implement smoking cessation treatment for residents who are not able to leave their rooms due to quarantine or isolation requirements.

MAID IN THE CONTEXT OF END OF LIFE DECISIONS IN THE ELDERLY

CHAIR: Lilian Thorpe

Summary: This symposium focuses on challenging end-of-life decisions in the elderly. The symposium will start with a general review of end-of-life decisions in the elderly, before focusing on medical assistance in dying in particular. A number of challenging cases of patients requesting MAID from the caseload of a geriatric psychiatrist involved in MAID assessment will be presented. Commentary on these cases will then be provided by a general psychiatrist with expertise in MAID assessments, followed by commentary by an ethicist. Active audience feedback and dialogue will be facilitated in the last 20 minutes of the symposium.

End-of-life Issues and Decisions in Vulnerable Elderly: a Clinical Overview

Dominique Elie

Background: Multimorbidity is frequently encountered in seniors living with severe and persistent mental illness (SPMI) or neurocognitive disorders, and this may shorten their already reduced life expectancy. The adoption of palliative interventions early in the course of medical illness could extend these patients' quality of life and functioning; however, clinicians rarely engage them in end-of-life (EOL) care discussion for various reasons.

Methods: This first part of the symposium will briefly review general EOL care issues, preferences, and planning in vulnerable elderly with SPMI or neurocognitive disorders.

Results: Vulnerable elderly timely access to palliative and EOL care is a widespread issue in Canada. Provision of patient-focused care can be challenging in seniors with impaired decision-making or communication, especially in the absence of clear advance medical directive or reliable surrogate decision maker. The literature indicates that comfort care is usually preferred over invasive, life-prolonging measures by most capable patients. Recent evidence shows that older SPMI patients seem less inclined to request medical assistance in dying in a context of disabling physical illness than medically ill elders. Overall, studies show that vulnerable elderly, when still cognitively capable, are interested and able to engage in advance care planning.

Conclusions: It is critical to better understand older vulnerable patients' wishes, care preferences, needs, and challenges encountered not only at the end of life, but along their illness trajectory. This would facilitate the implementation of quality, patient-centred interventions to address their physical and psychological suffering in a context of serious or terminal illness.

Clinical Challenges in the Assessment of MAID Requests in a Geriatric Psychiatry Practice

Lilian Thorpe

Background: Changes in Canadian legislation in 2016 has allowed for physicians and nurse practitioners to provide medical assistance in dying (MAID) as long as patients have reasonably foreseeable natural death and are capable of making this decision. Most patients requesting an assisted death have been elderly, yet there has been little discussion in geriatric psychiatry forums about this. Complexities in the assessment of eligibility will increase with the removal of the criterion requiring recently foreseeable natural death, and even more so by potential inclusion of patients with primarily mental health conditions. It is important that Canadian geriatric psychiatrists develop increased understanding of legal, clinical, and ethical challenges involved in not only assessment but also provision of MAID

Methods: A series of complex MAID assessments from a geriatric psychiatry practice will be discussed. This will allow for subsequent discussion of specific issues by following speakers.

Results: Elderly patients applying for an assisted death have so far comprised largely those with reasonably foreseeable natural death, particularly those with cancer. Challenges have included difficulties related to diminished capacity and balancing autonomy with protection in vulnerable people, especially those with concurrent mental health or cognitive difficulties. However, over the past few months more patients without reasonably foreseeable natural death have been applying, with the expectation that the law will be changing within a few months.

Conclusions: Geriatric psychiatrist have a valuable role to play in the assessment of patients applying for MAID because of their expertise in capacity assessment as well as managing complex comorbid physical and mental health conditions.

MAID Capacity Assessment in the Context of Mental Illness

Justine Dembo

Background: This segment of the symposium will explore the complexities of capacity assessment when a MAID request comes in the context of mental illness.

Methods: The clinical cases introduced by Dr. Thorpe will be discussed with a focus on how capacity can be affected by factors such as: unbearable suffering, autonomy, treatment-resistance or irremediability, psychosocial stressors, and cognitive distortions. Given that these same factors can be present in MAID requests for both physical and mental illness, attention will be paid to the issue of comorbid physical and mental illness, and to the ongoing debate about whether MAID should be extended to individuals requesting it on the grounds of sole mental illness.

Results: The existing literature indicates that individuals with mental illness are generally capable with respect to medical decision-making, and that their suffering can be just as severe as those with physical/somatic illness. Furthermore, mental illness can be irremediable, or treatment-refractory. MAID where mental illness is the sole underlying condition is currently the source of great controversy. In the presenter's experience as a capacity assessor for MAID requests in context of mental illness, each patient presents unique challenges and questions.

Conclusions: This segment will conclude by suggesting that each patient should receive a careful, individualized capacity assessment regardless of whether mental illness is present or is the sole reason for the MAID request, and that specialized training should be required for capacity assessors.

Ethical Values and Conflicts Related to MAID, From the Supreme Court to the Clinical Context

Udo Schuklenk

Background: The Supreme Court of Canada declared prohibitions on MAiD unconstitutional and laid out criteria that would translate into a permissive access regime. In this presentation I will describe the ethical values that drove the Supreme Court of Canada judgment on MAiD, and ask which of these values are relevant to assessing the cases presented by Dr Thorpe.

Methods: Literature Review and Ethical Analysis

Results: Exposition of ethical values motivating Supreme Court of Canada judgment on MAiD, discussion of these values as they apply to the case scenarios.

Conclusions: Clinical ethics consults that take these values into account can assist in clinical decision-making in difficult cases.

The Use of Sensors and Artificial Intelligence in the Management of Behavioural and Psychological Symptoms of Dementia

Andrea Iaboni, Dallas Seitz Ipsit Vahia

Background: Digital phenotyping refers to the quantification of a symptom or behaviour using a variety of different sources of data collected moment-to-moment in daily life. In the context of dementia care, sensors can be wearable and used to measure movement, location, various physiological markers, and environmental exposures. Computer vision-based sensors are able to "watch" for facial expressions and posture.

Methods: To transform sensor data into clinically useful information it is necessary to find features and patterns in the data. This process often involves modeling using advanced machine learning. The aim is to develop a system capable of capturing clinically meaningful information, and capable of using this real-time data to provide warnings or make predictions that have an impact on clinical decision-making or patient care.

Results: In this session, we will be presenting research on the use of different kinds of sensor data for the assessment and monitoring of behavioural and psychological symptoms in dementia (BPSD). Dr. Vahia will be speaking about a passive motion sensing technology to map behavioural phenotypes. Dr. Seitz will present the use of actigraphy to track motor activity in people with dementia. Dr. Iaboni will present the results of a study using multimodal wearable sensors and the use of computer vision to detect BPSD in people with dementia.

Conclusions: There are many opportunities for the use of technology in clinical dementia care. This workshop will help to explore barriers and facilitators, and the ethical dimensions of these tools, including the fine line between real-time clinical measurement and surveillance.

Telemedicine and the Rural Dementia Population: a Systematic Review

Kerman Sekhon, Harmehr Sekhon

Background: Telehealth has been highlighted as a potential to bridge the current healthcare needs in rural areas. These needs are most prevalent in the elderly, specifically, those that are affected by dementia, as they are unable to receive the medical and specialist services they require to successfully age in the community. The primary objective of this systematic review is to examine the impact of telehealth on health outcomes in elderly individuals with dementia.

Methods: A systematic review was completed using Ovid Medline and Web of Science. A total of 62 articles were identified in the searches using MESH terms. Additionally, 33 other resource were also identified through snowballing technique. After removing duplicates and applying the inclusion criteria (elderly participants, telehealth an outcome/intervention, sample population included dementia participants, rural population, article accessible, and empirical data) 8 studies were included.

Results: The studies had diverse populations. A variety of cognitive tests were used, with mixed results regarding the differences in patient performance based on whether they assessed in-person versus telehealth consultations. Overall both patients and physicians reported convenience, satisfaction, comfort. Physicians also reported they would use telehealth again and notably rural physicians were satisfied with the recommendations specialists made (for the patients via telehealth).

Conclusions: Current literature has emphasized the great need for increased rural healthcare accessibility but this systematic review has found two major themes have emerged; (1) the testing conditions and (2) the accessibility of telehealth yield inconclusive results as to whether telehealth can improve the management of dementia in rural geriatric individuals.

Development and Implementation of a Clinical Pathway for the Detection and Management of Depression and Anxiety in Persons Living with Dementia

Zahra Goodarzi, Mehri Karimi-Dehkordi, Zahinoor Ismail, Eric Smith, Tamara Pringsheim, Jayna Holroyd-Leduc

Background: Depressive or anxious symptoms are common in neurodegenerative conditions, such as dementia; and lead to significant disability. Practice varies in the detection and management of these affective symptoms leading to inconsistent clinical care.

Methods: This multi-method study developed and implemented clinical pathways for depressive and anxious symptoms in persons living with dementia. Barriers and facilitators to the management of anxiety or depressive symptoms were assessed using focus groups with health care providers. Using prior systematic reviews and these focus groups an evidence based clinical care pathway was developed. We recruited health care providers from across Canada to develop the clinical pathway using a modified Delphi process. Implementation of the clinical pathways occurred across 5 clinics using a randomized stepped wedge design.

Results: Barriers included a lack of resources and time, lack of awareness and training for the use of detection tools, concerns about detection tool accuracy. For treatment major barriers focused on a lack of clinical evidence for the management of anxiety, and heterogeneity in the evidence for depression. The modified Delphi process developed a clinical pathway for depression with 34 statements for depression and 22 for anxiety. Across the 5 clinics we were able to engage directly with clinic staff to provide education, audit and feedback, training, and changes to clinic flow—to implement appropriate screening and management of depressive or anxiety symptoms.

Conclusions: Specialty clinics providing care for persons living with dementia were engaged to develop evidence-based strategies to detect and manage depressive and anxious symptoms.

Investigation of the Positron-Emission Tomography [18F]MK-6240 Tau Ligand in Genetic Frontotemporal Dementia

Jake Levy, Melissa Savard, Tharick A. Pascoal, Elizabeth Finger, Robert Jr Laforce, Joshua A. Sonnen, Jean-Paul Soucy, Pedro Rosa-Neto, Simon Ducharme

Background: Tau is one of several proteins which can cause frontotemporal dementia (FTD). While knowing which protein is causing a patient's disease is crucial, no biomarker currently exists for identifying the pathogenic protein in vivo. This project investigates the potential for the [18F]MK-6240 PET tracer to bind to tau in FTD.

Methods: We are enrolling subjects with genetic FTD, who constitute an ideal population for testing because their pathology is already known. Patients with FTD due to MAPT mutations are expected to show tau binding, whereas patients with non-tau mutations such as C9orf72, GRN, and VCP are expected to not show abnormal MK-6240 binding. Each participant undergoes tau-PET scanning with MK-6240, amyloid-PET imaging with NAV-4694 to rule out confounding Alzheimer's pathology, high-resolution structural MRI, and neuropsychological testing.

Results: Thus far, we have scanned four symptomatic MAPT patients, whose tau-PET scans all demonstrated binding in expected regions without significant off-target binding. We have also analysed two asymptomatic MAPT carriers estimated to be five years from disease onset; both showed MK-6240 binding. We have additionally scanned four individuals with symptomatic FTD caused by a non-tau mutation (two C9orf72; one GRN; one VCP): their scans did not reveal any MK-6240 binding. All ten amyloid-PET scans were negative.

Conclusions: Our preliminary findings of MK-6240 binding in four symptomatic MAPT patients and two asymptomatic MAPT carriers within five years of disease onset are promising, particularly when combined with the absence of binding in our participants with non-tau mutations. Further patient recruitment is ongoing to determine clinical applicability

APPROCHE SYSTÉMATISÉE DES TROUBLES RÉFRACTAIRES EN GÉRONTOPSYCHIATRIE

Chair: Francois Rousseau

Summary: Ce symposium a pour objectif de présenter une mise à jour concernant les données scientifiques existantes au sujet des troubles réfractaires en gérontopsychiatrie. L'accent sera mis sur la dépression gériatrique, mais il sera aussi question des troubles psychotiques souvent difficiles à stabiliser chez les sujets âgés. Des cas cliniques complexes intégratifs seront aussi présentés. Les connaissances actuelles et les perspectives d'avenir concernant les ECT et les différentes techniques de stimulation cérébrale seront présentées en mettant l'accent sur leur pertinence chez les aînés affectés par des troubles résistants aux traitements courants.

La place des thérapies de neuromodulation dans le traitement des troubles réfractaires.

David Boivin-Lafleur

Background: Les thérapies de neuromodulation sont parmi les traitements les plus efficaces pour les troubles psychiatriques réfractaires. Ils sont plus sécuritaires que la médication chez la clientèle gérontopsychiatrique. Ils demeurent toutefois souvent peu proposés ou proposés tardivement par les psychiatres.

Methods: Une revue des différents traitements de neuromodulation disponibles au Canada sera faite afin de décrire leurs techniques, leurs indications et contre-indications et les bénéfices attendus dans les troubles réfractaires en gérontopsychiatrie. Seront abordés : l'électroconvulsivothérapie (ECT), la stimulation magnétique transcranienne répétée (rTMS), la magnétoconvulsivothérapie et la stimulation électrique transcranienne. Le tout sera appuyé par une revue de la littérature scientifique la plus récente.

Results: L'électroconvulsivothérapie est reconnue comme étant le traitement le plus efficace pour la dépression grave chez le sujet âgé. Plusieurs études spécifiques pour cette population de patients appuient son efficacité. Il existe aussi pour l'ECT des données d'efficacité plus limitées par rapport au traitement de la schizophrénie chez les aînés. La rTMS et les autres modalités de stimulation cérébrale sont appelées à se développer et à prendre une place plus importante pour les troubles psychiatriques complexes et réfractaires des patients âgés. Les résultats d'études récentes appuient ces options thérapeutiques qui sont à considérer et à rendre disponibles pour notre clientèle avec des besoins croissants.

Conclusions: Les traitements de neuromodulation existent depuis près d'un siècle. Ils continuent d'évoluer et d'être des options efficaces, sécuritaires et pertinentes dans le traitement des troubles psychiatriques réfractaires de la clientèle gérontopsychiatrique. Il est donc important d'avoir des connaissances à jour sur le sujet pour les intégrer adéquatement à l'arsenal thérapeutique.

Discussion de cas cliniques pour des situations d'impasse thérapeutique en gérontopsychiatrie

Jean-Francois Cote

Background: La dépression et les troubles psychotiques chez la personne âgée peuvent parfois représenter un défi diagnostique et thérapeutique. Ces troubles de santé mentale qui sont souvent d'origine multifactorielle peuvent entrainer des impasses dans lesquelles la souffrance du patient se prolonge et où on peut vivre un sentiment d'impuissance.

Methods: À l'aide de vignettes cliniques, des stratégies d'exploration diagnostique des différents visages des troubles réfractaires en gérontopsychiatrie seront abordées (Trouble dépressif récurrent à début précoce qui demeure actif avec le vieillissement, trouble psychotique à début tardif, symptômes dépressifs du trouble neurocognitif majeur). Le processus de diagnostic différentiel sera décortiqué (Conditions médicales, personnalité, comorbidités psychiatriques, etc.). Les options thérapeutiques pharmacologiques et non-pharmacologiques seront discutées. Ces processus de prise en charge clinique seront appuyés par une révision de la littérature contemporaine pour ces psychopathologies réfractaires.

Results: Ces présentations de cas complexes vont contribuer à l'intégration d'une approche rigoureuse et structurée auprès de patients âgées présentant une symptomatologie dépressive et/ou psychotique réfractaire. Une démarche clinique basée sur les données probantes permet d'optimiser la recherche de solutions thérapeutiques pour ces conditions psychiatriques qui représentent un défi significatif pour les cliniciens.

Conclusions: Bien que pouvant être réfractaires, les troubles dépressifs et psychotiques gériatriques sont souvent traitables et requièrent que nous abordions avec optimisme leur prise en charge considérant l'éventail de possibilités thérapeutiques disponibles.

Revue du concept de troubles réfractaires en gérontopsychiatrie

Francois Rousseau

Background: Le profil clinique des aînés atteints de troubles mentaux est associé à des caractéristiques qui complexifient le diagnostic et les traitements. Il en résulte un défi thérapeutique pour une proportion significative de patients âgés réfractaires aux traitements pharmacologiques et aux autres modalités de traitement conventionnels.

Methods: La littérature concernant la dépression gériatrique et les troubles psychotiques à l'âge avancé permet de clarifier le concept de trouble psychiatrique réfractaire chez les aînés. La résistance au traitement est principalement basée sur une absence de réponse clinique ou une amélioration insuffisante de la symptomatologie psychiatrique après une psycho pharmacothérapie à dose satisfaisante pendant un temps suffisant. Un minimum de deux essais thérapeutiques rigoureux devrait être tentés avant de conclure à un phénomène de résistance thérapeutique.

Results: La résistance aux antidépresseurs est rapportée chez jusqu'à 40% des aînés déprimés. Les antipsychotiques ont aussi une efficacité qui est souvent partielle pour cette sous-population de patients. En plus des enjeux d'observance du traitement et des difficultés d'optimisation des doses des médicaments, d'autres facteurs contribuent à cette problématique. Parmi ceux-ci, il importe de mentionner la fiabilité du diagnostic, la comorbidité physique et psychiatrique et la présence de maladie neurodégénérative. Pour la dépression réfractaire, les traitements pharmacologiques adjuvants ont un taux d'efficacité se situant entre 42% et 62%. Pour les troubles psychotiques réfractaires, les données scientifiques gériatriques sont limitées. Certaines études avec les antipsychotiques ont exploré ce concept. Les thérapies somatiques ont aussi un rôle important.

Conclusions: Les troubles réfractaires en gérontopsychiatrie sont fréquents et nécessitent une approche globale diagnostique et thérapeutique rigoureuse et structurée.

A Hands-on Workshop on Polypharmacy and Deprescribing

Sophiya Benjamin, Joanne M.W. Ho, Saumil Dholakia

Background: Medications are one of the leading causes of death and disability in North America. Multiple diseases, multiple medications and age-related changes to drug metabolism predispose older adults to drug-related complications. Several helpful deprescribing algorithms and initiatives exist to help prescribers minimize the use of harmful medications. However, in a subset of older adults with numerous comorbidities and complex medication lists, a more nuanced approach is required.

Methods: This workshop will use a problem based learning approach to illustrate the interconnectedness of prescribers focused on mental and physical health conditions. We will identify problems that stem from the most frequently asked questions by clinician referrals to a provincial interdisciplinary geriatric psychiatry and clinical pharmacology consultation service. Problems presented in the workshop will include common but challenging deprescribing dilemmas such as long-term use of sedative hypnotics and identifying and undoing prescribing cascades. Utilizing reverse classroom techniques and active learning strategies, we will guide workshop participants to work through the challenging medication optimization scenarios while applying evidence-based deprescribing literature.

Results: By the end of the workshop, participants will be more aware of the impact of drug-drug interactions and the value of interprofessional communication to minimize their harmful effects in older adults with complex physical and mental illnesses.

Conclusions: Collaboration and active communication between geriatric psychiatry, geriatric medicine and geriatric pharmacy can facilitate safer prescribing for older adults.

Supporting Indigenous Populations in a Geriatric Mental Health Context Through the use of an Adapted Personhood Tool : the PIECES of my RELATIONSHIPS

Karen Pitawanakwat, Emily Piraino, Dr. Kristen Jacklin, Dr. Wayne Warry, Dr. Melissa Blind, Dr. Jennifer Walker, Monica Bretzlaff, Louise Jones, Robert Spicer

Background: Equitable access to care for Indigenous people requires services to be culturally grounded and culturally safe. Personhood assessments are foundational components in delivering effective personalized care to people living with dementia, and it is crucial that the tools used to gather this information are effective in the context of Indigenous populations. A tool that has been adapted based on existing best practice tools in North Eastern Ontario is the PIECES of my RELATIONSHIPS. This work was a partnership between North East Behavioural Supports Ontario (NEBSO) and CCNA Team 20 Ontario.

Methods: This adaptation process followed community based participatory and Indigenous research methods, with participation from an Indigenous advisory council, language group, and focus group participants from urban, rural and remote communities within the NE LHIN.

Results: The result was a culturally relevant and safe tool that can be used by health care providers in home care, hospital, and long-term care settings to identify care needs and preferences for Indigenous people living with dementia.

Throughout the adaptation process, the approach used by care providers was highlighted as an essential component in the delivery of culturally safe care. In response, the tool includes three supporting documents which guide approach and information gathering in addition to the tool itself, including a guidebook, guideline for approach, and family supplement.

Conclusions: This workshop will explore the adaptation process, and provide participants with the skills to apply each of these tools in practice.

This workshop will be delivered in partnership between Behavioural Supports Ontario and CCNA Team 20.

Supporting Indigenous Populations in a Geriatric Mental Health Context Through the Use of Adapted Assessment Tools: Canadian Indigenous Cognitive Assessment (CICA)

Karen Pitawanakwat, Dr. Kristen Jacklin, Dr. Jennifer Walker, Dr. Wayne Warry, Dr. Melissa Blind, Dr. Megan O'Connell, Dr. Kate Smith, Dr. Dina LoGuidice

Background: Equitable access to care for Indigenous people requires services to be culturally grounded and culturally safe. Current cognitive assessments do not account for degrees of cultural, educational and language variation. These can impair assessment tool's application in Indigenous communities and lead to under- or misdiagnosis of dementia. This workshop will introduce a culturally relevant and safe cognitive assessment tool, the Canadian Indigenous Cognitive Assessment, or CICA. This tool may hold the potential to improve quality of life for Indigenous people living with dementia.

Methods: The CICA is based on the Kimberly Indigenous Cognitive Assessment developed in Western Australia (KICA). The KICA was designed to address the gap of culturally appropriate assessment tools for older Aboriginal and Torres Strait Island populations. CCNA Team 20 worked closely with community partners and the authors of the KICA to adapt the tool for use with Indigenous populations in Northern Ontario. The adaptation was multistep process involving a Language Expert Group, and a diverse workgroup including health care professionals and Indigenous older adults.

Results: The adaptation process resulted in a culturally relevant and culturally safe cognitive assessment tool (CICA) that participants were comfortable using. This tool has been tested for reliability and validity and has shown to be an appropriate test for cognitive impairment for use in North American First Nations and Indigenous persons.

Conclusions: This workshop will explore the adaptation process and training resources that are available for tool use in practice.

An Innovative Virtual Approach to Family Caregiving in Long-term Care During COVID-19

Lisa Cranley, Katherine McGilton, Linda McGillis Hall, Wendy Duggleby, Raquel Meyer, Shoshana Helfenbaum, Daniel Galessiere, Samantha Peck

Background: Current visitor restrictions in Ontario long-term care (LTC) homes have caused significant emotional distress for family caregivers with a loved one (resident) in LTC. Families face uncertainty over their loved one's health, and communication with LTC staff is limited to telephone calls.

Methods: We used co-design principles to develop a communication tool with residents and families as part of a huddle intervention (care planning meetings with staff) led by residents and families in LTC homes. Residents and families were asked to provide feedback on the tool. Individual interviews and one focus group were conducted with a total of 10 residents and family members in two LTC homes during Spring 2019. Data were analyzed using content analysis. Our team adapted the communication tool for families to use virtually (telephone) for continued conversations with staff about the care of their loved one during COVID-19. The adapted tool (including an eLearning module for training) is being sent to Family Councils across Ontario and will be further evaluated through telephone interviews with families.

Results: The communication tool is comprised of five questions to guide care planning. Participants made suggestions to improve the tool's readability. The eLearning module provides instructional scenarios and videos to effectively use the tool. Family perspectives of the usability of the module and adapted tool for virtual use will also be presented.

Conclusion: The tool can support families to more effectively communicate with staff and can support the development of evidence-based strategies when in-person meetings with staff are not possible.

Facing Isolation Together: Protocol of a Volunteer-based Telehealth Program for Isolated Older Adults During COVID-19

Harmehr Sekhon, Elena Dikaios, Alexandre Allard, Blanca Vacaflor, Allana Goodman, Emmett Dwyer, Paola Lavin Gonzalez, Soham Rej, Syeda Nayab Bukhari

Objectives: Social-distancing due to COVID-19 has led to social isolation, stress, and mental health issues in older adults, while overwhelming healthcare systems worldwide. Telehealth involving phone calls by trained volunteers is understudied and may be a low-cost, scalable, and valuable preventive tool for mental health. In this context, we have adapted from patient participatory volunteer initiatives an innovative volunteer-based telehealth program for older adults (TIP-OA).

Design: To evaluate TIP-OA, we are conducting a mixed-methods longitudinal observational study.

Participants: TIP-OA service users are older adults (age ≥ 60) recruited in Montréal, Québec.

Intervention: TIP-OA volunteers make weekly friendly phone calls to isolated seniors to check-in, form connections, develop relationships, provide information about COVID-19, and connect clients to community resources as needed.

Measurements: Perceived stress, depression, anxiety, and fear surrounding COVID-19, will be assessed at baseline, and on weeks 4 and 8. Semi-structured interviews and focus groups will be conducted to assess the experiences of clients, volunteers, and stakeholders.

Results: As of May 29th, 2020, 50 volunteers have been trained and 120 older adults have received TIP-OA calls. Pending research ethics approval, we will consecutively select 200 clients receiving TIP-OA for quantitative data collection, plus20-30 clients, 20-30 volunteers, and 10-20 stakeholders for semi-structured interviews and focus groups.

Conclusions: During COVID-19, less healthcare professionals' availability and increased needs related to geriatric mental health are expected. If successful and scalable, volunteer-based TIP-OA can address mental health concerns and decrease healthcare utilization, as well as increase community participation in the recovery tactics.

Challenges and Opportunities for Geriatric Psychiatric Units in Pandemic Times

Sarah Brunelle, Geneviève Létourneau

Background: Quebec, particularly Montreal's region, was greatly affected by the first wave of the Covid-19 pandemic. It created massive disruptions in the healthcare system and long-term care facilities, while older adults in the community also faced challenges related to the isolation and lack of services. In the midst of all that, geriatric psychiatry units in psychiatric hospitals faced several challenges related to the direct and indirect effects of the pandemic.

Methods: We will describe the two major inpatient geriatric psychiatry units affiliated with the University of Montreal and how Covid-19 disrupted their activities. We will discuss what strategies the geriatric psychiatrists and other professionals implemented to adapt to the new situation and protect their patients.

Results: The impact of the pandemic on the organization and delivery of care, on the teaching to medical students and residents and on the patients themselves were major and could have been catastrophic in both sites. However, it created great opportunities to gain access to technological aids and to educate our colleagues and directors to the needs of our elderly patients.

Conclusions: This crisis highlighted the lack of awareness in the psychiatric and medical communities regarding the roles of geriatric psychiatry units. We realized that our patients are still stigmatized, both in the community and within the healthcare system. However, those cases the leadership and advocacy of the geriatric psychiatry teams succeeded in maintaining access to quality care in the optimal setting for the patients.

The Management of Treatment-Refractory Behavioural Variant Frontotemporal Dementia with Electroconvulsive Therapy: a Case Report

Nimrit Bath, Maria Hussain

Background: Behavioural variant frontotemporal dementia (bvFTD) is characterized by the progressive loss of interpersonal and executive skills and some of its manifestations are disinhibition, aggression, and agitation. This constellation of symptoms is typically managed through various non-pharmacological and pharmacological strategies including serotonergic agents and dopamine antagonists. The use of electroconvulsive therapy and its success in treating dementia-associated agitation and aggression has been documented, however, few papers detail its use in managing bvFTD specifically. The following case report highlights the efficacy of ECT in the acute and long-term management of a 64-year-old male with treatment-refractory bvFTD.

Methods: This case study involved a literature review which focused on the effectiveness of ECT in the treatment of dementia-associated agitation and aggression, and a treatment-refractory case of bvFTD which responded to ECT is described. Consent was obtained and an electronic chart review was completed.

Results: After failing a combination of non-pharmacological and multiple pharmacological management trials, a treatment regimen which included ECT three times per week was effective in acutely managing agitation and aggressive behaviour. Thereafter, a maintenance ECT schedule was initiated which aimed to maximize the length of time between treatments while maintaining a sustained reduction in symptoms. This treatment was found to be effective as evidenced by the Cohen-Mansfield agitation inventory, dementia observation and system, caregiver report, and the ability to decrease the use of psychotropic medications.

Conclusions: This study provides evidence for the effectiveness of ECT as an acute and maintenance treatment for agitated and aggressive behaviour associated with bvFTD.

Effects of Mindfulness-Based Cognitive Therapy on Peripheral Blood Markers of Inflammation and Stress in Late-Life Depression and Anxiety: a Pre-Planned Secondary Analysis of Data from a Randomized Controlled Trial

Claudia Belliveau, Corina Nagy, Sophia Escobar, Naguib Mechawar, Gustavo Turecki, Soham Rej, S. Gabriela Torres-Platas

Background: Late-life depression and anxiety (LLD/A) are common, disabling, and costly conditions. Unfortunately, treatment non-response rates are up to 60% in older adults. Due to the world's aging population there is a serious need for scalable non-pharmacological interventions. Our group has found that Mindfulness-Based Cognitive Therapy (MBCT) may be a novel scalable treatment for LLD/A symptoms, however, the biological mechanisms for their efficacy remain unknown.

Methods: We conducted a Randomized Controlled Trial of an 8-week MBCT vs. Treatment as Usual (TAU) for LLD/A (n=61). Depression and Anxiety were assessed using the Patient Health Questionnaire (PHQ9) and General Anxiety Disorder-7 (GAD7). Out of these patients, 42 had blood samples available from before (T0) and after (T1) the 8-week period. We conducted quantitative polymerase chain reaction (qPCR) targeting C-reactive Protein, Interleukin 1 Beta, Monocyte Chemoattractant Protein 1 and Mineralocorticoid Receptor in an attempt to identify biomarkers of response to MBCT.

Results: None of the inflammatory/stress-biomarkers were associated with treatment response/outcome.

Conclusions: Our findings add to the existing literature of younger adult depression and anxiety: unlike with pharmacological treatments, inflammatory/stress-biomarkers may not be strongly correlated with treatment response with non-pharmacological interventions such as MBCT.

Gamma Wave Entrainment as a Non-Invasive and Non-Pharmacological Disease-Modifying Treatment In Alzheimer's – a Ray of Hope

VIncent Couture, Vasavan Nair

Background: Current treatment available for Alzheimer's disease are ineffective in modifying the disease. The putative disease-modifying treatments based on the amyloid hypothesis have failed in clinical trials. The NIHM has recognized gamma waves as the biological marker of cognitive enhancement in their Research Domain Criteria. An alteration in gamma waves has been previously identified in people suffering from Alzheimer's disease. Recently, Tsai and colleagues have also identified a decrease in gamma waves in animal models of Alzheimer's disease, which preceded the onset of amyloid pathology and cognitive deficit.

Methods: This has led to an attempt to use gamma waves induction as a form of treatment, first using optogenetics techniques in animal models, later using non-invasive methods, such as multi-sensory stimulation. There is an ongoing clinical trial in human patients diagnosed with MCI using multi-sensory stimulation to induce gamma waves.

Results: As early as 2001, studies have shown that there has been an induction of gamma frequency in long-term meditators. Moreover, a study from 2017 has shown that very different kinds of meditative practice can all lead to a positive effect on gamma activity. Brain slices and fMRI studies have suggested that gamma activity is only possible in the presence of high energy.

Conclusions: This is of particular interest considering that research has also highlighted the important role of bioenergetic changes in mitochondria, as a possible earliest pathophysiological change in Alzheimer's disease. This suggests that the regular practice of meditation, by maintaining a high energy state, could represent an effective and inexpensive non-pharmacological intervention in the prevention and treatment of Alzheimer's disease.

Investigating the Abilities of People with Dementia and Mild Cognitive Impairment to Take Over and Resume Driving Control from an Automated Vehicle

Mark Rapoport, Shabnam Haghzare, Jennifer Campos, PhD, Elaine Stasiulis, Gary Naglie, MD, FRCPC, FGSA, Alex Mihailidis, PhD, PEng, on behalf of the CCNA Driving Cessation Team Co-Investigators and CCNA Study Group

Background: It is thought that automated vehicles can help prolong the safe driving of persons with dementia (PWD) and persons with Mild Cognitive Impairment (PMCI). However, such aspirations may be compromised by concerns about PWD's and PMCI's abilities to safely perform the driving responsibilities introduced by current state-of-the-art automated vehicles (AVs). Current AVs are considered "Conditionally Automated Vehicles" (CAVs), in that, the AV can perform all aspects of driving (speed and steering) with the expectation that, whenever a system failure is identified, the human driver must respond appropriately to a request to take over driving control. This study will investigate PWD and PMCI abilities to perform this driving takeover task compared to controls.

Methods: Using Canada's most advanced driving simulator (DriverLab), we will simulate different driving takeover scenarios. The scenarios will differ with respect to environmental condition (day/night), road structure (straight, curved), and speed limit (50 km/h, 100 km/h). Across conditions, participants' response time to a takeover request will be measured to characterize the safety of their performance. We will recruit a convenience sample of 20 participants per three groups of PMCI, PWD, and controls over the next six months.

Results: Timely performance of the takeover task draws upon multiple cognitive resources, such as divided and focused attention. As these cognitive resources can be compromised in PWD and PMCI, we expect PWD's takeover time to be the slowest compared to PMCI and controls.

Conclusions: This study will clarify whether PWD and PMCI can safely perform driving takeovers in CAVs. In turn, this can clarify whether CAVs can enhance the driving safety of PMCI and PWDs, thereby delaying their driving cessation and the associated adverse consequences.

Cerebrospinal Fluid Biomarkers in Older Adults with Mild Cognitive Impairment, With and Without a Major Depressive Disorder

Angela C. Golas, Patrick Salwierz, Tarek Rajji, Christopher R. Bowie, Meryl A. Butters, Corrine E. Fischer, Alastair J. Flint, Nathan Herrmann, Linda Mah, Benoit H. Mulsant, Bruce G. Pollock, Foad Taghdiri, Maria C. Tartaglia

Background: Mild Cognitive Impairment (MCI) and Major Depressive Disorder (MDD) have been independently associated with increased risk of dementia. Cerebrospinal fluid (CSF) biomarkers associated with Alzheimer's disease (AD) show changes prior to the onset of symptoms of dementia or neuroimaging biomarkers of AD. We examined the association between a CSF biomarker profile of AD and diagnosis in three groups: MCI alone; a diagnosis of MDD alone; or MCI plus a diagnosis of MDD.

Methods: The CSF total tau, p-tau, amyloid-β42, and the p-tau/ amyloid-β42 ratio were measured in 31 participants enrolled in the PACt-MD study diagnosed with MCI (N=13), MDD (N=7), or both (MCI+MDD) (N=11) according to NIA-AA and DSM IV criteria. We compared AD biomarkers in the 3 groups and then compared cognitive performance in those with and without a CSF biomarker profile consistent with AD.

Results: Among the 31 participants, 9 had a CSF biomarker profile consistent with AD: 7/13 with MCI; 0/7 with MDD; and 2/11 with MCI+MDD. Participants with an AD biomarker profile had significantly greater impairment in verbal memory than those without one (p=0.009). Of those without a profile consistent with AD, no significant differences were observed in cognitive performance between the MCI and MDD+MCI groups.

Conclusions: In our sample, few participants with MDD had a CSF biomarker profile consistent with AD, even if they had a neurocognitive profile consistent with MCI. The etiopathology of cognitive impairment in older patients with MDD requires further investigation.

Diminished Ability to Overcome Mnemonic Interference in Individuals with Treatment Resistant Depression

Mahdieh Varvani Farahani, Sudesna Chakraborty, Richard O'Reilly, Amer Burhan, Lena Palaniyappan, Ali Khan, Stefan Köhler

Background: Patients with major depressive disorder have reduced hippocampal volumes and impaired declarative memory performance. Nevertheless, the relationship between these deficits is still unclear. Pattern separation (PS) is a mechanism of encoding known to rely on the hippocampus, whereby similar, overlapping stimuli are orthogonalized into distinct, non-overlapping representations. The Mnemonic Similarity Task (MST) provides a behavioural marker of potentially abnormal PS computations. Studies have found a negative relationship between MST performance and depression symptom severity, but only in sub-clinical (i.e., undiagnosed, otherwise healthy) samples. We study this relationship in a clinical sample of individuals with treatment resistant depression (TRD). This research is conducted as part of a broader multi-modal longitudinal project aiming to examine treatment effects on hippocampal integrity in TRD.

Methods: An initial sample of 25 patients with TRD was recruited from the Therapeutic Brain Stimulation Clinic at Parkwood Institute before receiving treatment, in addition to 13 demographically matched healthy controls. Participants underwent a battery of tasks taxing hippocampal-dependant memory functioning, including the MST, and performance in other cognitive domains.

Results: Preliminary analyses revealed PS deficits in the TRD patient sample based on their performance on the MST. Specifically, deficits were notable in discriminating similar lures from target stimuli, indicating a diminished ability to overcome mnemonic interference.

Conclusions: Our results confirm and expand previous findings, revealing PS deficits in a clinical sample of TRD. Data will be discussed in the broader context of existing findings, with a review of the extant literature on the relationship between depressive mood and PS in non-clinical samples.

Dysphoric Mood of Late Life Depression Leads to Negative Deviation of Reality as Measured by a Random Event Generator

Akshya Vasudev, Grace Kadler, Imants Baruss, Emily Ionson

Background: Previous studies demonstrated a positive correlation between positive emotions and one's ability to influence a random event generator (REG), in the intended direction. Other studies, found correlations between negative emotions and influencing a REG in the unintended direction. In the present study, investigators sought to determine whether a late life mood disorder was associated with deviations of a REG in the unintended direction. Also explored was whether severity of depression, anxiety symptoms, and state of consciousness predicted REG deviations

Methods: An experimental group (n=30) diagnosed with late life depression (age 60-85), an age-comparable group (n=15) never diagnosed with late life depression or no longer had clinically significant depressive symptoms (PHQ ≤ 3), and a convenience sample of young individuals with varying depression scores (n=10) were compared. All participants completed standardized measures of depression, anxiety, and state of consciousness, before interacting with an electronic, binary, truly stochastic REG, alternatively mentally attempting to influence the REG's cumulative deviations to run "high" or "low." The criterion measure was the numerical difference between high intention and low intention runs.

Results: The average criterion measure was below zero for the experimental group (t(26)=-1.718, p=.049, one-tailed). However, there were no differences between the experimental group and the comparison groups (F(2,50)=.124, p=.844, one-tailed) so that the entire sample resulted in displacement opposite to intention (t(49)=-2.371, p=.022). There were no robust predictors of the criterion measure.

Conclusions: Dysphoric emotional states of late life depression appear to lead to direct mental influence of physical manifestation opposite to intention.

Evaluation of the Waterloo Wellington Behavioural Supports Ontario Program in Long-Term Care

Kayla Brooks, Paul Stolee, Jacobi Elliott, Carrie McAiney

Background: Behavioural Supports Ontario (BSO) was developed to enhance person-centered supports and services for persons living with responsive behaviors across care settings. A survey by Grouchy *et al*., (2017) found that compared to mobile models, the embedded model was the most preferred in terms of service provision and impact on quality of care. The Waterloo Wellington region of Ontario uses the embedded model; however, it is unclear whether this is adequately meeting the needs of LTC residents and staff.

Methods: Guided by principles of Utilization-Focused Evaluation (Patton, 2008) and Appreciative Inquiry (Cooperrider and Whitney, 2001), an outcome documentation evaluation of the BSO program was conducted in collaboration with BSO leaders, family caregivers, and LTC staff. A sequential exploratory mixed methods approach was used, with both qualitative (interviews and focus groups) and quantitative (survey) data collected.

Results: Qualitative interviews revealed themes related to current challenges in LTC, and important considerations for the success of the BSO program. A series of program outcomes were also identified throughout these interviews and rated based on level of importance and performance in a quantitative survey. Generally, program outcomes were rated consistently across importance and performance by participants; however, some discrepancies were observed.

Conclusions: This evaluation helped identify indicators of success of the BSO program and which components of the embedded model are valued and performed well by LTC staff. These findings may be helpful for regions developing similar programs as well as guidance for future program enhancement.

Mobilizing Teens to Build Dementia-Friendly Communities: a Peer-Based Approach

Lena Cassidy, Beth Solztberg LICSW

Background: People with dementia can become isolated due to stigma and lack of understanding in their communities. We hypothesized that creating intergenerational links between adolescents and people with dementia through a school-based club using the Dementia Friends framework would reduce stigma and increase acceptance for those living with dementia. Dementia Friends is a global public awareness program initiated by the UK Alzheimer's Society.

Methods: We used school-based platforms (such as the activities fair) to promote our club and grow its membership to 27 students, ages 14 to 16. We also used food, colorful signage, direct conversations and postings on popular social media sites to attract and engage peers. We worked to increase awareness and understanding of dementia while focusing on the major ideas of Dementia Friends. To sustain interest, we used competitive educational games as well as artistic and musical activities. We also reached out to assisted living facilities to identify opportunities for club members to connect with affected individuals. After six months of weekly meetings, we used a questionnaire to assess members' attitudinal shifts regarding dementia.

Results: These interventions have increased interest and awareness in dementia among teenagers in our school. Our growth in membership and questionnaire results suggest these strategies hold promise to reduce stigma regarding dementia.

Conclusions: Using these peer-based strategies, adolescents can successfully be engaged in reducing stigma about dementia and in learning how to support individuals with dementia. We conclude that adolescents are a valuable resource in preventing and reducing stigma about dementia.

Development of a Novel Clinical Rotation in the Care of Older Adults with Substance Use Disorders

Jessica Cuppage, Amy Freedman, Marilyn White-Campbell

Background: Having been termed an "invisible epidemic," the rate of substance use disorders (SUDs) among older adults in Canada is predicted to rise as the baby boomer generation ages. In 2018, the Canadian Centre on Substance Use and Addiction (CCSA) identified a need for more education and training on how to assess and manage SUDs in older adults. The aim of this project was to develop a novel clinical rotation in geriatric addiction medicine within the Care of the Elderly (COE) Enhanced Skills Program.

Methods: Curriculum objectives in related areas were reviewed for COE and Addiction Medicine (AM) programs across Canada. A set of competency-based goals and objectives and an ITER (in-training evaluation report) were developed using the CANMEDS-FM framework. The rotation design included assessment of SUDs in outpatient clinics, long-term care, inpatient consults, and via telemedicine. Feedback was collected at the end of the rotation from the resident and supervisors.

Results: We were unable to identify any rotations in SUDs in older adults in COE or AM programs. The rotation goals and objectives and ITER will be reviewed. Assessment and management of SUDs included tobacco use, alcohol use and opioid use disorders.

Conclusions: This novel rotation in geriatric addiction medicine was developed to address the societal need for physicians who are confident and capable in assessing and managing SUDs in older adults. This rotation demonstrates the strengths of interdisciplinary learning and may help serve as a model for other COE, AM, geriatrics and geriatric psychiatry programs.

Taking Stock: Baycrest's 2 Day Outpatient Mental Health Program for Older Adults

CJ Grief, Sabrina Botsford, Janet Murchison,
Robert Madan, Nancy Skoczkowski

Background: In January 2017, Baycrest's Department of Psychiatry inaugurated a 2-day outpatient mental health program (2DP). We aimed to offer evidence-informed care with positive psychiatry principles, to adults (age >/ 65) with mood and related disorders. The 2DP was designed to compliment our established 4-day program, by offering greater time flexibility and increased suitability for people with less severe illness. Here we 1) describe the 2DP and 2) explore the alignment between our intent and participants' perspectives of the experience.

Methods: A qualitative survey was administered to a 2DP cohort. Participants were asked about program structure (i.e. time commitment) and utility of curriculum elements.

Results: Description: The 2DP is run by an interprofessional team who collectively offer group and individual therapy, medication management, exercise, and psycho-education. The integrative curriculum involves: goal-setting, behavioural activation, peer support, problem-solving, CBT techniques, and breathing practices.

Diagnoses include mood and anxiety disorders but exclude dementia, mania/ hypomania or acute psychosis.

Participant Feedback: 10 participants from the current cohort responded. 90% prefer a 2-day/week time commitment. Multiple participants will continue to use exercise (60%), the STOPP method (60%), and breathing techniques (30%). Daily structure, problem-solving, mindfulness, and group therapy were helpful elements identified.

Conclusions: Our 2DP is described and contrasted with qualitative comments from its current cohort. Feedback suggests participants value personal growth, peer-support and learning specific tools and wellness-based strategies. Given issues with scalability of the 2DP, more rigorous curriculum-mapping, focusing on key program elements, is recommended.

Customizing Education: an Online Bespoke Module for Caregivers of Persons with Dementia

Cindy Grief, Lisa Sokoloff, Adriana Shnall, Sandra Gardner, Claire Chan, Rosalind Sham

Background: Educational needs for caregivers of persons with dementia (PwD) may differ by dementia type, personal and cultural background and carer relationship. Traditional "one-size-fits-all" approaches to education may be inadequate. Previously, we demonstrated the feasibility of bespoking education for healthcare professionals for seniors. This project tests bespoking education for caregivers.

Methods: Caregivers of PwD were randomly assigned to a bespoke or non-bespoke group. Bespoke participants provided input into content. The online module was completed individually. One week post-completion, participants attended a phone or in-person session facilitated by experts. Confidence was measured using the Preparedness for Caregiving Scale (PCS). User experience and adoption surveys were completed.

Results: • N=12 completed pre-PCS surveys; mean item score 2.3 (SD=0.8)

- 6 completed post-PCS survey; mean item score 2.8 (SD=0.7)
- Mean item scores pre- vs. post- were similar for both groups (no time by group interaction, p=0.87)
- A significant increase in confidence was found over time (mean change=0.53, medium effect size, p=0.002)
- 70% participants indicated the online cases met their learning needs
- 80%, N=10 would recommend the module.
- Bespoke group indicated they were satisfied to very satisfied with this educational activity (4.2 out of 5, N=6)

Conclusions: Improved confidence in caregiving occurred for all participants, who were satisfied with the education activity and would recommend it to other caregivers. Recruitment challenges resulted in a small sample size. Customization of education for caregivers of PwD permits multiple learning needs to be met simultaneously.

Collaborative Mental Health Care for Older Adults: Building Capacity with Primary Care Physicians

Briana Howarth, Nick Kates, Karen Saperson, Wei Wang, Pallavi Dham, Lillian Lourenco, Tarek K. Rajji, Carrie McAiney,

Background: Primary care physicians (PCPs) care for older adults with complex medical, psychiatric and social needs. Collaborative care is an effective way of delivering mental health care with the goal of building capacity with PCPs. We aimed to determine whether implementation of an integrated care pathway (ICP) had an effect on PCPs' self-assessed knowledge, and performance in identifying and managing common late-life mental health conditions.

Methods: Beginning in 2016, a joint project between McMaster University (Hamilton, ON) and the Center for Addiction and Mental Health (Toronto, ON) implemented ICPs for adults, born 1951, 1953 and 1955, with depression, generalized anxiety disorder (GAD), or mild cognitive impairment (MCI). PCPs completed a survey at baseline (T1), 6 months (T2) and 12-18 months (T3) post ICP implementation. Knowledge and performance in identifying, following evidence-based guidelines and monitoring were assessed. Use of evidence-based screening tools and ability to recognize each condition in this age group were also assessed. We analyzed survey results from 13 PCPs in a Hamilton, ON primary care practice at T1 and T3. Data were analyzed using two-tailed dependent t-tests and use of evidence-based screening tools was analyzed using McNemar's test.

Results: PCPs' knowledge increased with statistical significance from T1 to T3 ($p<0.006$). Performance and ability to recognize improved without statistical significance. The use of evidence-based screening tools did not change over time.

Conclusion: Implementation of ICPs for older adult mental health improves PCPs' self-assessed knowledge in identifying and managing common mental health conditions in older adults.

Funding: Labarge Foundation

Promoting Seniors Mental Health: a Vision for Suicide Risk Assessment and Management

Ann Jarvie, Amy Van Berkum, Alexander Douglas, Kris Pettit, Sharlene Elsie

Background: Those 65 years and older are amongst the highest risk for suicide, and represent 18% of the population in Ontario's London-Middlesex Region. St. Joseph's Health Care London (SJHC) provides inpatient and ambulatory health services to seniors via an internal referral process from the Geriatric Ambulatory Access Team (GAAT). In 2016 SJHC was the first Canadian organization to adopt the Zero Suicide Initiative, which includes suicide risk screening. In 2018, an enhanced centralized intake process for geriatric ambulatory health care services was created to triage up to 3600 referrals per year. Seniors are screened for suicide risk in the GAAT program but there remains opportunity to identify further suicide prevention processes (i.e. suicide risk and intervention algorithm) to support those who are identified as high risk during their transition.

Methods: The project leads, collaborating with clinicians in the mental health and GAAT programs, completed a review of best practices informed by current literature, existing suicide risk assessment and management algorithms.

Results: The project team members collaborated to develop a suicide risk assessment and management algorithm with a plan for evaluation to occur in 2021.

Conclusions: Anticipated findings suggest there will be improved safety processes for supporting high risk clients in transitions in care. Clinicians will have clarity related to suicide risk processes and report improved levels of interdisciplinary communication of suicide risk status and competency with suicide management.

An Urgent Geri-psych Clinic on Wheels: a Process Re-design Using a Nurse Practitioner to Avert Hospital Admissions from the ED

Karen Simpson, Nicole Rodney-Hare

Background: Geriatric psychiatry patients commonly to present to the ED for mental health issues that do not require admission to hospital. ED staff often consider psychotropic medication changes that warrant a prompt reassessment. It is not always reasonable for geriatric psychiatry clinics, outreach teams as well as family physicians to have the capacity to provide these time sensitive reassessments. There are also considerations for prescribing psychotropics such as side effects and drug interactions that have potential for the patient to return to the ED. This pilot project uses the scope of practice of nurse practitioners to provide urgent home-based psychotropic medication assessment and management that integrates organizational systems to avert unnecessary admissions to hospital.

Methods: A process re-design was developed to allow for time sensitive communication between team members to avert ED presentations and hospital admissions. The nurse practitioner provided an urgent home visit (usually less than 5 business days). Their assessment and management plan is communicated and implemented in collaboration with other team members including the family physician.

Results: Data collected supports that ED presentation and hospital admissions were averted. Patients and families and health care team members reported enthusiastic satisfaction of this approach to care because it supported their care needs outside the hospital in a timely fashion.

Conclusions: An urgent home-based nurse practitioner intervention can help to avert geriatric psychiatric patients from presenting to the ED and avert unnecessary hospital admission. This process re-design also allows for integrating teams in the pursuit of optimal care of geriatric psychiatry patients.

What is the Role of Geriatric Psychiatry in Project ECHO® Care of the Elderly?

Lisa Sokoloff, David Conn, Cindy Grief,
Navena Lingum, Shaen Gingrich, Devin Sodums,
Anna Santiago, Rosalind Sham

Background: Originating in New Mexico, Project ECHO (Extension of Community Health Outcomes) is an educational program using videoconferencing to build capacity in healthcare providers. In 2018, Baycrest, and North East Specialized Geriatric Centre, introduced "Project ECHO Care of the Elderly" (ECHO COE). Based on feedback we expanded to 3 programs: 1) General COE 2) Long-Term Care and 3) Dementia.

Methods: ECHO COE curricula consist of multiple topics focusing on geriatrics. Early on, feedback indicated the need for topics in geriatric mental health (MH) including dementia assessment and management. Learning partner cases predominantly featured patients with multiple geriatric MH issues including depression, anxiety, and BPSD, regardless of the weekly topic. Participants frequently requested sessions focused on geriatric MH.

Results: In our three programs over 50% of the curricula relates to geriatric MH with topics presented by geriatric psychiatrists. Many topics not specific to MH often have a MH component (e.g., movement disorders); geriatric psychiatrists are crucial in the case discussions. Of 85 cases presented 82% had a geriatric MH component, e.g., dementia, depression. ECHO COE consistently demonstrates significant Increases in knowledge and self-efficacy ($p<0.05$). Program satisfaction is high; mean weekly ratings >4.2/5.

Conclusions: ECHO COE is an effective educational program for building capacity in geriatrics for healthcare providers. Although ECHO COE does not focus specifically on geriatric MH, we identified an unmet need as most cases had a MH component. As our programs expand, Geriatric Psychiatry will play a significant role in curriculum design, presentations, case discussions and recommendations.

Champlain Specialized Behavioural Support Unit (SBSU) for Dementia Care: Review of Early Success

Tatiana Vavrova, Dr. Cathy Braidek, Adele Lončar,
Nancy Lesiuk, Kerry Tubman

Background: The SBSU (which opened in April 2018 at the Perley Rideau Veterans' Long Term Care Facility (PRVHC)) accepts referrals from long-term, acute and tertiary care. Specialized care is provided using: higher staff-to-resident ratios; staff with specialized training in managing

Methods: SBSU is a collaboration between PRVHC, Champlain LHIN, Behavioural Supports Ontario and The Royal Ottawa Mental Health Centre. Environmental features include: 20 single occupancy rooms (at basic accommodation rates); open hallways; secure unit and garden; silent call bell; and, on unit break room and nursing station. On site education and support services are provided by collaborators.

Results: As of December 2019 the SBSU has had 32 admissions and 12 discharges . The average length of stay is 303 days. The SBSU has had limited transfers for psychiatric emergencies or inpatient admissions. The SBSU has provided safe transitions at all points of care.

Conclusions: This unique model of patient care, education, supports, and capacity building amongst collaborators, and community partners, has provided quality care for residents suffering from dementia with severe behavioural disturbance while supporting flow through the SBSU, increasing the access to this limited resource.

Mobile Apps for Suicidal Ideation and Behaviors

Atami De Main, Atami S. De Main, Bo Xie

Background: With challenges to connect individuals with mental health services, mobile health (mHealth) apps represent means of providing mental health information and interventions. However, little is known about mHealth apps targeting suicidal ideation/behaviors. Our study explores mHealth apps for suicidal thoughts/behaviors describing key features, target populations and types of health information, to provide insight into further research and development of mHealth related to suicide.

Methods: We conducted multiple searches on Android and iOS app stores and excluded apps with predominant features related to games, animations, entertainment purposes and product marketing and in a language other than English. We identified 60 relevant iOS and android apps.

Results: Few apps (10%) were developed by health departments and organizations (e.g. SAMHSA). All apps mainly focused on self-management, symptom tracking, skills training and social support. 85% of the apps provided health information related to psychosocial aspects, including assistance/support in dealing with suicidal thoughts. All apps targeted youth and adults but none was geared towards older adults.

Conclusions: With suicide rates in older adults on the rise and with an increasing number of older adults owning smartphone/tablet, it is crucial to adapt suicide-related apps to older adults' needs due to their unique symptomatology of suicidal ideation.

The Fountain of Health for Optimal Aging: Results from a Community-Based Workshop Series Delivered by Retired Physicians in Nova Scotia

Amy Gough, Dr. Keri-Leigh Cassidy, Dr. Michael Vallis, Ms. Jean Robinson-Dexter

Background: The Fountain of Health (FoH) is a national health promotion knowledge translation initiative using cognitive-behavioural therapy tools to active behaviour change in key modifiable areas to promote brain health and resilience: positive thinking, social activity, physical activity, mental health and lifelong learning.

Methods: In this quality improvement study, retired physicians in Nova Scotia were trained to deliver a 4-session workshop series on FoH information with other seniors in their community, emphasizing S.M.A.R.T. (specific, measurable, action-oriented, realistic, time-limited) goal-setting, including use of a Wellness App to facilitate goal-tracking. Primary outcome measures were 1) pre-/post- self-report questionnaire on health attitudes, and 2) goal-attainment scale to assess behaviour change. Qualitative feedback was obtained via a post-workshop focus group with project facilitators.

Results: To date, 7 retired physicians delivered 11 workshop series over 4 weeks to 126 participants aged 54-94 in 9 locations across Nova Scotia. Preliminary results suggest that after workshop series completion, participants had improved attitudes to aging and high levels of S.M.A.R.T. goal attainment. The materials and format were well-received by project facilitators. *Please note that statistical analysis for this project is ongoing; final results with additional statistical detail will be completed by Spring 2020 and available for presentation in October in Montreal.

Conclusions: This community-based intervention led by retired physicians improved participants' self-reported health attitudes and key behaviours to promote health and has potential for scaling within Canada.

Older Adult Group Activity in the Time of COVID19

Mary Hynes, Monika Kastner, PhD, Nicole D. Anderson, PhD, Arlene J. Astell, PhD

Background: In the face of an aging population, the OA_SMART project is examining the potential of a self-managed SMART (Specific-Measurable-Achievable-Relevant-Time limited) goal intervention to "flatten the morbidity curve". The intervention is delivered through older adult facilitated groups (Hynes, Klinger & Mirza, 2020). However, the COVID19 pandemic creates a potential impasse for this and other projects, as older adults, as a population at risk, may not wish to participate in group community activities even after civic and medical authorities allow. We report a consultation with older adult as experts about what would bring them back and their view of alternate approaches.

Method: Expert consultations with small, representative cross-section of older adults, who, in pre-COVID times, were actively engaged in social, recreation or civic engagement activities. Semi-structured interviews asking which prerequisites would encourage them to return to previous activities and about their current and projected engagement in on-line activities. Analysis of data is expected to indicate that older adult group participation interaction will require modification in the foreseeable future.

Results: Results will inform delivery methods and platforms for older adult engagement in the SMART goals project.

CONCLUSION: This consultation will provide guidance for researchers involved in older adult research in the peri- and post- COVID19 environment.

Hynes, M, Klinger, CA and Mirza, RM. Aging with Resilience—Surviving, Responding and Adapting. *Can Geriatr J*. 2020; 23(1):102.

Caring for Individuals with Behavioural and Psychological Symptoms of Dementia During the COVID-19 Pandemic

Alvin Keng, Eric E Brown, Aviva Rostas,
Tarek K Rajji, Bruce G Pollock, Benoit H Mulsant,
Sanjeev Kumar

Summary: The COVID-19 pandemic has significantly affected the elderly and particularly individuals with Alzheimer's disease and related disorders (ADRD). Behavioural and psychological symptoms of dementia (BPSD) are common in individuals with ADRD and are associated with more severe illness. However, unlike the cognitive symptoms of ADRD that are usually progressive, BPSD may be treatable.

Individuals with BPSD are facing unique challenges during the pandemic due to the inherent nature of the illness, and the biological and psychosocial impacts of COVID-19. These challenges include a higher risk of severe COVID-19 infection in individuals with BPSD due to their frailty and medical vulnerability, difficulty to participate in screening or testing, and inability to adhere to infection control measures such as physical distancing. Further, biological effects of COVID-19 on the brain and its psychosocial impact such as isolation and disruption in mental health care are likely to worsen BPSD. In this session, we review challenges and strategies to manage the impact of COVID-19 and to effectively care for individuals with BPSD in community, long-term care, or hospital settings during the pandemic. Despite the ongoing uncertainty associated with this pandemic, we can reduce its impact on individuals with BPSD with a proactive approach.

Out of the Shadows: Addressing Resident-to-Resident Aggression in Long-term Care

Riley Malvern

Background: Incidents of resident-to-resident aggression in long-term care (LTC) can have serious consequences and may result in poorer quality of life for residents, increased staff turnover, harmful psychological and physical effects, or death. Many people shy away from talking about resident-to-resident aggression because it can be a sensitive topic. This silence can result in missed opportunities to reduce the risk.

Methods: Recognizing resident-to-resident aggression as an urgent public health issue, the Alzheimer Society of Canada (ASC) has embarked on a multiyear project to understand the issue and what LTC staff need to address it. The outcome for the first phase of this project was the creation of an information booklet for LTC staff. To create the booklet an environmental scan was completed that examined existing literature and tools, subject-matter experts were consulted, and focus groups were conducted at a Canadian LTC home.

Results: The information booklet provides an overview of the issue of resident-to-resident aggression and outlines the harmful consequences this can have on residents, families, staff and management if not dealt with appropriately and openly. It suggests person-centred, structural and environmental strategies for responding to resident-to-resident aggression and for reducing the risk of it happening again in the future.

Conclusions: Educating staff about resident-to-resident aggression can support them to think creatively and apply effective strategies to reduce the number of incidents. Doing so can improve quality of life for residents, staff, management and families. ASC's next steps will involve creating practical tools to help staff address this issue in their own LTC home.

Predictors of Delirium in a Geriatric Burn Unit at the Sunnybrook Health Sciences Centre (SHSC)

Emilie Norris-Roozmon, Dr. Orrisha-Denbow-Burke, Dr. Corinne E. Fischer, Dr. Mireille Norris

Background: Seniors experience burn associated delirium at a higher rate compared to younger adults. Following an audit of older-adults (≥65) admitted to the Ross Tilley Burn Centre (RTBC) at SHSC between 2017-2019, delirium was identified in 21/42 of patients via geriatric consult (27 Male, 15 Female).

Methods: Forward selection, backwards selection and second order Akaike's Information Criterion (AICc) model selection measured predictor variables of delirium for each of the 42 patients.

Results: In all instances the model with the following parameters (Number of Home Medications (NHM), Percentage of Body Surface Area (BSA), and Length of Stay (LOS)) accounted for 27% of the variability when determining factors associated with delirium (p-value 0.003). The fourth-best model, selected for via AICc, contained Age, BSA, Depression, Gender and NHM accounting for 35% of the regression. The evidence ratio described the first model as being 1.53 times better than the fourth-best model. Seventy-two percent of medication change recommendations ; opioids, sedative hypnotics, anti-psychotics, anti depressants, antihistamine, OTC, anti-convulsants, benzodiazepines were followed. Delirium resolved in 100% of discharged patients. Among the 21 delirious patients, 3 were diagnosed with depression requiring anti-depressants prior to admission.

Conclusions: Among factors influencing delirium in seniors admitted to a burn unit NHM, BSA, LOS, are all significant predictors. Depression adds to the precision of the model only when included to the predictors Age, BSA, Gender and NHM and must be minimised to reduce delirium risk. Targeting medication change among delirious senior burn patients is associated with effective resolution of delirium.

A Covid-19 Imperative: The Use of Half-doors in the Isolation of Residents with Dementia in Long-term Care

Lynda Culley, Sarah Krieger-Frost, RN, MN, Caitlin Manley, RN, MN, Andrea Perry, OT Reg; MHSc, MSc(OT)

Summary: Residents of long term care (LTC) homes have proven to be particularly vulnerable to the spread of Covid-19. This vulnerability is exacerbated given the prevalence of dementia, which limits one's ability to independently adhere to infection control protocols. When combined with some of the common behavioural and psychological symptoms of dementia (BPSD), such as wandering, elopement, spitting, and resistance to care, the risk of spread within LTC is of urgent concern; there is a moral imperative to protect residents and staff from spread. During the first wave of Covid-19, staff have been frequently utilized to redirect residents into their rooms to promote isolation. This strategy presents with shortcomings, as there is often not the staffing complement to meet the demand - particularly as case counts increase, and transmission risks are likely to remain. In instances where restraints (whether chemical or physical) have been used, there remains an element of risk propagation to staff, as multiple staff are often required to initiate restraint. This is in addition to the well-established risks and concerns to the resident when initiating such restraints. As such, we sought to explore an alternative –environmental modification (half doors) to ensure the safety and security of the resident, co-residents and staff, in these extenuating circumstances of covid-19. Safeguards for use will also be shared.

METHODS: A literature review was conducted. This complements our impressions as geriatric psychiatry and behavioural resource consultants to long-term care homes.

Results: We propose that half-doors are an ethically justifiable isolation strategy for individuals with cognitive impairment during covid. We base this on our belief that half doors do promote:

- Resident autonomy and safety
- Utilitarian beneficence and duty of care
- Reduction of risks to staff
- Judicious use of scarce resources

Conclusions: We urge policy and decision-makers to consider the use of half-doors in their pandemic planning for long-term care.

Content Validity of Competencies for a Competency by Design Electroconvulsive Therapy Curriculum in Canadian Psychiatry Residency Training

Taran Chawla, Dr. Valerie Primeau

Background: Late life depression displays a chronic course that's coupled with higher relapse rates, cognitive impairment and medical comorbidities resulting in poorer prognosis. Studies have shown that advanced age is correlated with more optimal response and remission with electroconvulsive therapy (ECT) than pharmacological treatment. ECT is a modality that all rotating trainees in Psychiatry are expected to train for and achieve a fair level of competency with. Residency training in ECT is quite variable across programs and results in inconsistent practice post graduation. The Medical field is moving towards Competency-Based Medical Education (CBME) in which trainees are required to demonstrate different competencies per milestone of training. The first phase of this research project was to refine and define competencies, which have been completed in collaboration with academic psychiatric ECT experts/practitioners across Canada. The goal is through professional validation, the defined ECT competencies can be unified and defined among various Canadian Psychiatry residency training programs.

Methods: An online survey will be used to validate the competencies. The survey will be provided to Psychiatrists and ECT nurses at the North Bay Regional Health Centre.

Results: Competencies validated by those mentioned above, will be discussed.

Conclusions: Validating competencies is a suitable methodology to customize a Competency-based ECT curriculum focusing on extending these competences into learning objectives, curriculum methods, assessments and evaluation tools.

Adequacy of Care and Persistence of Common Mental Disorders in Older Adults Consulting in Primary Care in Quebec

Catherine Lamoureux-Lamarche, Djamal Berbiche, Helen-Maria Vasiliadis

Background: In Canada, less than one in two adults with common mental disorders (MD) received adequate treatment in the past year. Data on adequacy of care for depression and anxiety disorders and related long-term effects in older adults are scarce. The aim of this study was to assess the association between adequacy of care received and the persistence of common MD three years later.

Methods: The analytic sample included 222 older adults with depression or an anxiety disorder consulting in primary care and participating in Quebec's longitudinal ESA-Services (2011-2016) study. Adequacy of treatment was measured using administrative and self-reported data and based on Canadian guidelines and relevant literature. The persistence of common MD was defined by the presence/absence of at least one common MD at baseline and at follow-up, 3 years later. Logistic regression analyses were used to evaluate the association between adequacy of care and persistence of common MD controlling for socio-demographic and clinical factors.

Results: In this study, 53% of older adults with depression and 38% with an anxiety disorder received adequate pharmacological or psychological treatment. Close to 1 in 3 older adults with a common MD did not receive any pharmacological or psychological treatment. Adequacy of care was associated with increased likelihood of a persistent common MD over a 3-year period.

Conclusions: Adequacy of care was not associated with a reduced likelihood of persistence of common MD. Future studies should focus on the effects of receiving inadequate care in terms of patient treatment preferences, quality of life and healthcare costs.

Insomnia of Caregivers (CG) of People Suffering from Alzheimer Disease (AP) and its Associations with CG's and AP's Psychologic and Sociodemographic Features

Marianne Lemay, Sébastien Grenier, Marie-Michelle Boudreau, Gabrielle Laurier

Background: Sleep problems are highly prevalent in caregivers (CG) of Alzheimer's patients (AP), and it is likely that insomnia is common in that population. Knowing the multiple psychological and physical impacts of insomnia, it would be pertinent to assess if insomnia is actually frequently reported by caregivers of AP, and if so, what are the correlates to insomnia's CG in a dyad-perspective.

Methods: 26 dyades (CG and AP) were recruited and asked to come to Institut universitaire de gériatrie de Montréal to complete a medical assessment, psychological measures, and neuropsychological tests. A few inclusion and exclusion criterias were necessary to fulfill, to make sure the participants were able to suit the study. The objectives of this project were to assess the pourcentage of CGs that would report clinical levels of insomnia, and to assess what variables, on the side of the CG as well as the AP, are associated with CG's insomnia. Statistical analyses were done using the software SPSS. A sensibility analysis was then performed to compare the results obtaines through parametric analyses with non-parametric analyses.

Results: Results show that 50% of CGs included in our study report clinical or sub-clinical levels of insomnia. Furthermore, insomnia was more correlated with CG's features (sex, psychological distress, quality of life) than AP's features (only quality of life was associated).

Conclusions: These results suggest that CG's insomnia might be more associated with CG's own features, rather than the AP's features. This study gives the opportunity for future research in the domain, so that professionals could sccreen and identify easily and faster the CG's who are at risk to develop insomnia.

An Unusual Presentation of Dorian Gray Syndrome in an Elderly Woman

Mastooreh Mehrafarin, Karen Cassells,
Dr. Shabbir Amanullah

Background: The term "Dorian Gray Syndrome (DGS)" was adapted from Oscar Wilde's famous novel, The Picture of Dorian Gray. The syndrome description was first published in 2000 in a symposium, describing a man who suffered excessive distress due to what he called "hair loss" [1]. The objective of this clinical case report is to highlight this unusual presentation and the need of future studies due to its possible relation to depression and suicide [2].

DGS is a common psychosomatic illness characterized by dysmorphophobia, narcissistic defense against psychological maturation, and obsessed with arresting aging process [3]. The prevalence of DGS has been reported 3% in the German population [2], however the ratio between men and female are yet to be discovered.

Methods: Case presentation

We report an unusual presentation of Dorian Gray Syndrome (DGS) that presented to Woodstock Hospital.

Results: The case was an elderly woman priorly diagnosed with dementia suffering a regression in her perception of body image. In the process of her denial of maturity, she developed a preoccupation with growing older than her real age, to the point where she was claiming that she was 107 years old when she was in fact 85. Further investigations were consistent with Dorian Gray Syndrome.

Conclusions: This case demonstrates the accurate diagnosis of a Reverse/inverse Dorian Gray Syndrome in an elderly woman leading to optimal patient outcome after psychotherapy. Features of this case are discussed together with its implications. Further studies are warranted to show relations between DGS and suicide and depression.

The Dementia Experience Workshop: Building Understanding and Empathy Through a Simulated Learning Exercise

Olga Yashchuk, Cheryl Murphy, MD, FRCPC,
Sarah Krieger-Frost, RN, MN

Background: The proportion of older adults in the world continues to grow and so does the number of older adults who are affected by major neurocognitive disorders (dementias). "Dementia" is an umbrella term that encompasses illnesses of varying etiologies and presentations, which makes it a challenging topic to teach to medical students. The Dementia Experience Workshop aimed to help build understanding and empathy for persons affected by dementia among medical students.

Methods: The workshop lasted 2 hours and consisted of 2 parts. It was included in the Med 3 curriculum at Dalhousie University for the first time in the 2019-2020 academic year. By using various props, part 1 aimed to simulate physical impairments older adults may face and participants were asked to complete a set of tasks with these impairments. A debrief and a short teaching session followed. In part 2, students were encouraged to apply what they had learned in part 1 and interview a standardized patient with moderate dementia. The workshop concluded with a final debrief.

Results: Both quantitative and qualitative data was collected and will be shared with the audience.

Conclusions: Overall, the workshop was well received by its participants. Feedback themes from participants noted perceived increased empathy and understanding of dementia as well as provided suggestions for future improvement.

Preliminary Examination of the Potential Benefits and Barriers to Home-Based Telepsychiatric Care for Older Adults Provided by Toronto-Based University of Toronto Affiliated Geriatric Psychiatrists.

Crystal Zhou, Dr. Carole Cohen

Background: This study aims to explore the potential benefits and barriers to home-based telepsychiatric care for older adults. For the purposes of the study, “telepsychiatry” is defined as providing psychiatric consultation to a patient by videoconferencing. “Home-based” is defined as the patient’s primary place of residence (which is not a congregate setting).

Methods: University of Toronto affiliated geriatric psychiatrists known to be providing telepsychiatric care for older adults were contacted by e-mail and invited to participate in a semi-structured interview in-person or via telephone. Data was recorded through written notes and themes elicited through aggregate data.

Results: Preliminary findings showed different types of telepsychiatric care currently being provided to older adults by the participant group. Telepsychiatry to remote clinics and hospitals, long term care homes, and rehabilitation units is more common than home-based. For home-based telepsychiatry, one model includes an onsite clinician with the patient (e.g. Telemedicine IMPACT Plus). Another model entails videoconferencing directly to patient’s home devices (e.g. via eVisit) without onsite clinician support. Participants described benefits to patients, family members, the psychiatrist and more remote areas with home-based telepsychiatric care. Barriers related to technology, patient sensory and cognitive impairments, limitations on physical examination and some aspects of cognitive testing, potential initial set-up costs, and concerns regarding security of information.

Conclusions: Telepsychiatric care for older adults being provided by University of Toronto affiliated geriatric psychiatrists is currently occurring in various forms. Further development of home-based telepsychiatric care without on-site clinician support could be beneficial to explore.

Sociodemographic, Psychosocial, and Clinical Factors Associated with Prescription Opioid Use Among Older Adults Consulting in Primary Care

Carina D’Aiuto, Helen-Maria Vasiliadis

Background: Opioid use is a growing concern in Canada, particularly among older adults. Despite the opioid crisis and the aging population, few studies have evaluated the factors associated with opioid use among seniors.

Methods: The sample includes 1657 people aged ≥65 years recruited in primary care clinics from 2011 to 2013 in the Montérégie region of Québec and participating in the “Étude sur la Santé des Aînés” ESA-Services study, a longitudinal study on aging and health service use. The presence of chronic diseases was identified through self-reported health survey data linked to health administrative data. Opioid prescriptions were identified using the provincial pharmaceutical drug registry for those covered under the public drug insurance plan. Logistic regression analyses were conducted to examine the factors associated with opioid use over a 4-year period.

Results: 31.9% of participants used opioids. Factors associated with opioid use included: female sex (OR=1.24, 95%CI: 1.01-1.53), annual household income of <$25,000 (OR=1.25, 95%CI: 1.01-1.55), level of social support (OR=0.85, 95%CI: 0.73-0.99), and presence of pain/discomfort (OR=1.66, 95%CI: 1.34-2.04). Further, participants with ≥3 chronic physical conditions also reporting anxiety and/or depression were 3.63 (95%CI: 1.83-7.18) times more likely to use an opioid than those with 0-2 chronic physical conditions and no common mental disorder. Moreover, those with moderate, high, and very high psychological distress were more likely to use an opioid than those with a low psychological distress.

Conclusions: Our findings suggest that, among other factors, physical and psychiatric multimorbidity is strongly associated with prescription opioid use in older adults.

The Role of Physical and Psychiatric Multimorbidity in the Relationship Between Prescription Opioid Use and Mortality Among Older Adults

Carina D’Aiuto, Helen-Maria Vasiliadis

Background: Prescription opioid use is concerning among older adults. Yet, few studies have examined the impact of opioid use on mortality by considering multimorbidity.

Methods: The sample includes 1586 older adults aged ≥65 recruited in primary care from 2011-2013 in a large health administrative region in Quebec and participating in the ESA-Services study, a longitudinal study on aging and health service use. An opioid prescription delivered in the 3 years prior to the baseline interview was identified using the provincial pharmaceutical drug registry. Mortality was ascertained from the vital statistics registry until 2015. Chronic diseases were identified based on self-reported survey data and physician diagnostic codes in health administrative databases. Physical multimorbidity was defined as ≥3 chronic physical conditions from either source. Physical/psychiatric multimorbidity was defined as ≥3 chronic physical conditions and ≥1 common mental disorder from either source. Logistic regression analyses were conducted to examine the association between opioid use and mortality, controlling for sociodemographic factors. Interactions were tested for opioid use and multimorbidity.

Results: Older adults with physical multimorbidity using opioids were 1.76 (95%CI: 1.02-3.03) times more likely to die than those not using opioids. Those with physical/psychiatric multimorbidity using opioids were 2.27 (95%CI: 1.26-4.09) times more likely to die than those not using opioids. Older age, male sex, and single marital status significantly increased the risk of mortality.

Conclusions: Opioid use increases the risk of death in older adults with multimorbidity. The presence of mental disorders further increases the risk of death in seniors with physical multimorbidity using opioids.

Distinguishing Between Dementia and Depression in Older Adults

Leslie Giddens-Zuker

Background: Depression is the most common mental illness experienced by older adults. The incidence of seniors experiencing symptoms of dementia in a long term care setting is higher than those living independently in the community.

Statistics reveal that approximately half the seniors that experience late onset depression also are living with some type of cognitive impairment or dementia. It is therefore important to identify depression as early as possible so that it can be treated and to distinguish between it and dementia so that it can be best managed.

Methods: Risk factors for both illnesses will be examined, including a diagram of symptom overlap.

A decision tree will be illustrated to learn how to assess for each illness.

Four screening tools will also be utilized to determine what the senior is experiencing.

A clinical case will also be explored.

Results: There will be a clearly explained decision tree and pathway including which of four assessment tools to utilize when trying to establish if an older adult is experiencing symptoms of depression or dementia.

A clinical case example will be shared with specific outcomes to determine the course of treatment

Conclusions: Determining and distinguishing the symptoms of depression and dementia can be extremely challenging.

We will have a better idea of how to do this, which tools to use and how a social worker can be support these individuals in a long term care setting.

Optimizing the Use of Benzodiazepine Receptor Agonists (BZRAs) in Institutional Settings

Christopher Kitamura, Dr. Catalina Lopez de Lara, Dr. David Conn

Background: Benzodiazepine receptor agonists (BZRAs) are commonly used in the elderly. Potentially inappropriate use of BZRAs is associated with significant risks and serious health outcomes in this population. Various interventions ranging from brief to multi-component and organizational interventions exist and may help reduce inappropriate use of BZRAs. However, it is important that practicing clinicians are aware of these interventions and feel comfortable using them or help with their implementation.

Methods: This interactive workshop will review appropriate and potentially inappropriate use of BZRAs as well as the evidence for interventions to optimize the use of BZRAs, with an emphasis on institutional settings. We will briefly share results of our feasibility and efficacy study of a multi-component deprescribing intervention targeting prescribers and decision-makers to reduce BZRA use in a large, urban long-term care facility. By working within small groups followed by large group discussion, participants will be able to apply the knowledge gained to common clinical scenarios.

Results: By the end of the workshop, participants will identify evidence-based approaches to optimizing the use of BZRAs, and practice using these interventions to reduce inappropriate use of BZRAs using common clinical scenarios.

Conclusions: Evidence-based interventions to reduce inappropriate use of BZRAs exist and should be implemented when indicated. Practicing clinicians working with older adults can benefit from gaining practical knowledge and skills to implement these interventions.

A New Approach to Understating the Meaning of Behavioural Expressions in Persons Living with Neurocognitive Disorders

Atul Luthra, Theresa Breen

Background: Twelve behavioral categories were developed to classify behaviors in moderate to advanced dementia. These categories were used to develop a new behavioral assessment inventory titled LuBAIR (Luthra's Behavioral Assessment and Intervention Response).

Methods: The reliability and validity of the LuBAIR Inventory was established in an earlier study, where it found that the LuBAIR was less labour intensive, more comprehensive, and offered improved categorization of behaviors into clinically meaningful categories. It was also found that the LuBAIR Inventory has comparable inter- and intra-rater reliability, and Construct and Criteria validity in comparison to BEHAV-AD and Cohen-Mansfield Agitation Inventory (CMAI).

Results: This course will seek to make attendees aware of these newly constructed behavioral categories, the 'meaning' or the 'purpose' of each of these categories, and the specification of each theoretical construct used to justify the formation of each of the 12 behavioral categories. Through the use of the principles used to understand the 'meaning' or 'purpose' of individual behavioral symptoms identified under each behavioral category, attendees will learn how to develop innovative behavioral treatment interventions.

Conclusions: The advantage of the LuBAIR paradigm lies in its ability to collect more data, and allow data to be put under clinically meaningful categories in order to help understand the 'meaning' of observed behaviors in persons with Dementia. Its use should substantially progress pharmacological and behavioral interventions in Dementia and major neurocognitive disorders (NCD).

The Baycrest Quick-Response Caregiver Tool: the Role for a New Tool for Caregivers of Persons with Dementia

Robert Madan, Anna Berall, Marsha Natadiria, Rosanne Aleong, Kenneth Schwartz, Anna Theresa Santiago

Background: Responsive behaviours in dementia are associated with poor outcomes for the person with dementia (PWD) and caregiver burnout. Family caregivers need a variety of tools to manage responsive behaviours. The Baycrest Quick-Response Caregiver Tool was developed to provide caregivers with a tool that can be used in real time. In this study, the feasibility, impact, and effectiveness of this new tool were studied in family caregivers and health care providers (HCP) using quantitative and qualitative measures.

Methods: Family caregivers were recruited and were asked to complete a pre-survey before being sent the link to the educational tool. One month after the telephone survey, caregivers were sent an online post-survey to gather their feedback on the tool and the impact of the tool on caregiver well-being. Healthcare providers were also recruited and reviewed the tool through an online feedback survey. The feasibility, impact, and effectiveness of the tool were assessed using quantitative and qualitative measures.

Results: Caregivers had a moderate degree of and reported a high level of competence - these scores were maintained throughout the study. Caregivers reported that tool positively impacted their compassion towards the person with dementia (PWD), and that their interactions with improved. 100% of HCP who completed the feedback survey would recommend the tool to other HCP and to caregivers of PWD. The caregivers and HCP provided specific suggestions for improvement.

Conclusions: The Baycrest Quick-Response Caregiver Tool was found to be feasible and helpful. It provides caregivers and HCP with an additional approach for responsive behaviours.

Evaluation of Groups for Nicotine Dependent Older Adults in Long-term Care

Marilyn White-Campbell, Whitcliffe Henry

Background: Older adults living in long term care who have cognitive impairment pose challenges when there are risky behaviors around smoking. As residents with dementia progress in the course of their disease, smoking can pose risks for fire and poorer health. Smoking cessation groups can help residents to make informed choices around Nicotine replacement therapy and make healthy choices. This session will discuss nicotine dependence in older adults with and without cognitive impairment who are living in LTC.

Methods: The COPA College model was used for Nicotine dependence support groups in three long term care homes. Participants were identified by staff as either risky smokers or residents with poor health related to smoking. Each participant was screened for nicotine dependence, participated in four educational sessions on Nicotine dependence. Sessions included education on Nicotine Dependence and the benefits of smoking cessation, Nicotine Replacement Therapy and pharmacotherapy for smoking cessation, and information on use of E-Cigarettes. The participants were asked to complete reflections on their experience and whether or not they wanted to stop smoking and what method of NRT they would like to try.

Results: 16 residents completed COPA College nicotine dependence program. Result indicate that providing evidence based information to residents of LTCH on the risks and harms of Nicotine use, forms of NRT and E-cigarettes can help residents make healthy choices to reduce or stop their smoking. 100% of participants were satisfied with the programs and would recommend it to others. Participants tended to minimize the harms of nicotine to their health however, most identified that they wanted to make changes to their smoking habits using NRT products. Two participants wanted to try using e-cigarettes and the remainder wanted to use Nicotine replacement therapy including use of the patch, nicotine lozenges, nicotine inhalers, and nicotine spray.

Conclusions: There is benefit to use of age matched programs for older adults with nicotine dependence who live in long term care and are experiencing health related harms from smoking and or have risky smoking behaviors.

Don't Hide Away: Destigmatizing Dementia with Memory Cafes

Olga Yashchuk, Beverley Cassidy, MD, FRCPC, Steven Wilton

Background: Social isolation is an increasingly recognized problem with deleterious effects on both mental and physical health among older adults, especially those with neurocognitive disorders and their caregivers. Memory cafes, which originated in the Netherlands in the 1990s aim to promote social connection, destigmatize memory impairment and build age friendly communities. The purpose of this workshop is to share the experience of starting a Memory Café in a rural Nova Scotia community, to describe what a Memory Café get-together may entail and to highlight the effect that this experience has had on the lives of its participants.

Methods: A Memory Café was pioneered in collaboration with the town, businesses, artists and community members of Wolfville, NS. 16 participants (family members, caregivers and older adults with cognitive impairment) participated in one hour long get-togethers every second week for a total of 6 sessions hosted by a local café. The Memory Café provided participants with an opportunity to socialize, while also listening to local musicians or participating in group activities (e.g., singing, playing music, and chair yoga).

Results: Quality improvement data, based on a questionnaire and participant narratives were collected at the end of the 6 sessions, and will be shared with the audience.

Conclusions: Memory Cafes are innovative, cost-effective and sustainable initiatives aimed at combatting social isolation and loneliness among individuals with cognitive impairment as well as their caregivers. They provide individuals with a much needed opportunity for reintegration into their communities, de-stigmatization and promotion of a culture of support, understanding and empathy.

COGNITIVE AND EMOTIONAL FRAILTY IN OLD AGE: CORRELATES AND POTENTIAL FOR PREVENTION

Chair: Amer Burhan

Summary: Frailty is a complex multi-faceted syndrome that increases in prevalence in old age and is associated with negative health outcomes and mortality. While physical and cognitive frailty has been described in the literature for some time now, the literature on emotional frailty is just emerging. This symposium will include three parts as follows:

1. Cognitive and emotional frailty in old age: definition, risk factors and potential for prevention (Amer M. Burhan et al, Western University)
2. Sensory-motor correlates of frailty and opportunity for remediation (Karen Li et al, Concordia University)
3. Rectifying brain frailty through network-based interventions: rebuilding brain networks through brain stimulation (Sanjeev Kumar et al, CAMH and University of Toronto)

The symposium will be for 120 minutes including introduction, overview and pre-test for 10 minutes, 3 talks, each for 25 minutes plus 5 minutes Q and A, and finally 20 minutes post-test and panel discussion. Speakers in this symposium come from leading academic centers in Canada and have significant contribution to the field of cognitive aging, geriatric psychiatry and brain stimulation and all are investigators with the Canadian Consortium on Neurodegeneration in Aging (CCNA) initiative.

Effects of Transcranial Magnetic Stimulation on DLPFC Plasticity, Working Memory and Theta Gamma Coupling in Alzheimer's Disease

Sanjeev Kumar, Reza Zomorrodi, Heather Brooks, Michelle S. Goodman, Daniel M. Blumberger, Zafiris J. Daskalakis, Corinne Fischer, Benoit H. Mulsant, Tarek K. Rajji

Background: Alzheimer's disease (AD) is associated with plasticity deficits in the dorsolateral prefrontal cortex (DLFPC) which, in turn, have been associated with working memory deficits. The latter have also been associated with reduced theta gamma coupling (TGC). Paired associative stimulation (PAS), a paradigm that combines peripheral nerve electrical stimulation with central Transcranial Magnetic Stimulation (TMS), indexes plasticity deficits when combined with electroencephalography (EEG). Repetitive PAS (rPAS) is thought to enhance plasticity, and in turn, working memory and underlying TGC

Methods: To study the ability of DLPFC rPAS to enhance neuroplasticity and working memory performance in patients with AD, and to explore its effect on TGC changes underlying working memory, 32 patients with AD (females = 16), mean (SD) age = 76.4 (6.3) years were randomized 1:1 to receive a 2-week (5 days /week) course of active rPAS (inter-stimulus interval = 25 ms) or control rPAS (inter-stimulus interval =100 ms). DLPFC plasticity was assessed using single session PAS-EEG and working memory was assessed using the N-back task before rPAS and days 1, 7 and 14 post rPAS course. EEG during the N-back task was used to assess TGC.

Results: There were no significant differences between the active and control rPAS groups on DLPFC plasticity or working memory performance after the intervention. However, on post hoc within group analyses, only the active rPAS group experienced enhanced plasticity on post day 1, enhanced working memory performance on post days 1,7 and 14, and enhanced TGC on post days 1 and 14. Control rPAS group experienced enhancement only in working memory and TGC and only on post day 14. Further, there was a positive correlation between working memory performance and TGC.

Conclusions: This study did not show evidence that rPAS is better than control PAS in enhancing DLPFC plasticity, working memory, or TGC in AD. However, there were promising results from the within group analyses. The study is limited by small sample size and delivering rPAS unilaterally. Future studies could address these limitations by including a larger sample, delivering rPAS bilaterally, and addressing an earlier stage of AD, e.g. mild cognitive impairment, to confirm these results.

Sensory-motor Correlates of Frailty and Opportunity for Remediation

Karen Li, Rachel Downey, Averil Parker, Berkley Peterson

Background: Cognitive and emotional health in old age can be negatively affected by the accelerated decline of multiple functional systems. For example, age-related hearing loss is associated with an elevated risk of MCI and dementia, and has recently been identified as the top modifiable risk factor for all-cause dementia. Similarly, hearing loss in old age is associated with a three-fold increased risk of falling. Likewise, slowed walking, and in particular, multitasking activities such as walking while talking, have been identified as predictors of cognitive impairment.

Methods: This presentation will review recent studies linking sensory, motor and cognitive aging, using experimental methods that simulate sensory or cognitive impairments, and cross-sectional studies that compare individuals with subjective cognitive impairment or hearing impairment with healthy older adults.

Results: We also review recent intervention studies that involve exercise training and computerized cognitive training to strengthen cognitive control processes and brain regions that are implicated in supporting age-related cognitive and motor performance.

Conclusions: Together, sensory and/or cognitive impairments and dismobility can lead to reduced out-of-home activity, social withdrawal, and low self-efficacy.

Cognitive and Emotional Frailty in Old Age: Definition, Risk Factors and Potential for Prevention

Amer Burhan, James Patience, Ajmal Safi, Karen Li, Mervin Blair

Background: Cognitive frailty is a multifactorial syndrome defined by concomitant cognitive impairment and physical frailty. The definition of “emotional frailty” is not clear but there is emerging evidence for emotional and behavioral changes that correlate with future cognitive decline. Our objective was to review the literature on cognitive frailty and emotional changes in old age to identify related risk and protective factors and relevant gaps.

Methods: We performed a narrative review using specific terms and variations of these terms in available databases.

Results: There is evidence for alterations in brain structure and function with age, which can modify cognitive performance and emotional processing. Compensatory scaffolding processes in the brain can help older adults adapt to some of these changes, but these processes are not always sufficient to prevent cognitive frailty. Prevalence rates for cognitive frailty varies from 1.0% to 22.0% depending on the definition used. Individuals with cognitive frailty are at greater risk of ADL limitations, hospitalization, emotional frailty, dementia, and death. The definition of “emotional frailty” is lacking but there is evidence for change in emotional processing in old age, which increases the risk for cognitive decline.

Conclusions: There is a need for better definition and measurement to detect cognitive frailty but also to better understand “emotional frailty” concept and the link between the two concepts. A framework is proposed for understanding various influences on cognitive frailty and emotional processing in old age, identifying different levels of prevention, and outlining a multimodal approach to remediation.

Supporting LTC Residents with Responsive Behaviours After-Hours: a Collaborative Approach to Care in London-Middlesex

Alex Phillips, Patricia Potter-Bereznick, Dr. Lisa Van Bussel, Krista Harloff

Background: Managing responsive behaviours of residents of Long-Term Care (LTC) Homes in the evenings and on weekends can be challenging. Staffing ratios are lowered, residents may experience sundowning, Management is not in the Home, and services are closed, which may lead to resident transfer to ED. In order to address this issue, South West BSO funding was utilized to launch the Discharge Liaison Team (DLT) Enhanced Service Pilot Project. Working closely with the London-Middlesex LTC Administrator’s Group, 8 Homes were identified to pilot the project from December 2019 to September 2020.

Methods: Leveraging the BSO model, staff at the pilot Homes can call a DLT Nurse after-hours in order to obtain guidance and mentorship in addressing residents’ behavioural concerns, regardless of whether the resident is on the DLT caseload or not. The DLT nurse will not take over care of the resident, but will build capacity within the LTC staff to stabilize the resident.

Results: While there has been substantial excitement and support for this project, in the first 3 months the DLT nurses have continued to support only residents who were already on their caseload. A review of the model by which we support residents is ongoing.

Conclusions: The need to support LTC residents with responsive behaviours in the evenings and on weekends is important in the community and BSO has the opportunity to determine the best use of resources to fulfill this need.

The Behavioural Supports Ontario-Dementia Observation System (BSO-DOS©): Un outil d'évaluation pour faire l'observation de comportement(s) associé(s) avec la démence

Debbie Hewitt Colborne, Debbie Hewitt Colborne, Lori Schindel Martin, Lindy Kilik, Fernanda Fresco, Tina Kalviainen, Helene Gravel, Jennifer St-Jules, Melanie Beaulieu

Background: Direct behavioural observation of individuals living with dementia experiencing responsive behaviours/personal expressions is an integral part of interprofessional assessment, care planning and clinical decision -making. Clinical teams need evidence-based measures to systematically record observed behaviours/expressions, identify contributing factors, tailor interventions and track outcomes. This need is true for all clinical teams, with the extended challenge felt by francophone clinicians who experience limited availability of clinical tools in the French language.

Methods: In 2017, Behavioural Supports Ontario (BSO) initiated a collaborative, interdisciplinary process to update a widely used direct observation tool: the Dementia Observation System (Schindel Martin, 1998). The updated standardized product, now called the BSO-DOS© was released in May 2019 in English. Subsequently, in response to the need for a French version, efforts were made to translate the BSO-DOS© and its supporting resources.

Results: The uptake for the English BSO-DOS© was seen nationally, with the noticeable exception of Québec. Through collaboration with francophone clinicians, the BSO-DOS© and several supporting resources were released in French. Initial results provide strategies in supporting the implementation and meaningful utilization of the French version of the BSO-DOS©.

Conclusions: Within an environment of limited French-Language clinical tools, the French BSO-DOS© supports francophone clinical teams in identifying patterns, trends, contributing factors and modifiable variables associated with responsive behaviours/personal expressions; ultimately contributing to tailored, individualized approaches which includes proactive strategies to promote quality of life that are key to providing person and family-centred care.

An Interdisciplinary Approach to Geriatric Mental Health Outreach: Assisting Older Adults with Dementia and Neuropsychiatric Symptoms to Stay out of Acute Care and Remain in Long-term Care

Katelyn Reynolds, Leslie Giddens-Zuker, Vanessa Thoo

Background: As the Canadian population continues to grow, so will the number of individuals living with dementia. These individuals make up a large percentage of the long-term care population and neuropsychiatric symptoms are prevalent. Poorly managed symptoms often lead to repeat acute care admissions, visits to the emergency department and can occasionally result in discharge from the long-term care setting.

Methods: A literature review was conducted with a focus on dementia and neuropsychiatric symptoms in the long-term care setting. During this presentation, an interdisciplinary model of geriatric mental health outreach will be discussed through case presentations.

Results: The assessment and treatment of neuropsychiatric symptoms in the long-term care setting continues to be challenging. Symptoms can become unmanageable and they can pose safety risks to the other residents as well as to staff. Our interdisciplinary Geriatric Mental health Outreach Team (GMHOT) works closely with long-term care staff with the hope of overcoming some of these challenges. We also liaise with other health care teams in the emergency room and acute care settings. Our primary goal is to improve the quality of life of our patients who suffer from advanced dementia and allow them to remain living in the community with as much dignity as possible.

Conclusions: Seniors with complex chronic conditions are living longer and older adults with dementia are placing an increasing burden on the Canadian health care system. Innovative interdisciplinary models of care must be developed in order to address the unique clinical challenges faced by this population.

Coping with Aging in Ourselves and Our Patients: Reflections of an Experienced and Aging Therapist

Ken Schwartz

Background: We are all aging. When we age well, be it in our professional or personal lives, we remain connected and continue to live with purpose and meaning. Various approaches showing the importance of hope and taking action in facilitating successful coping with both aging and illness in ourselves and our patients are demonstrated.

Methods: A paradox of old age is that though we aspire to get there, we live in fear of what it will involve. A series of questions raising awareness of one's attitudes, feelings and behaviors with respect to issues of one's own aging, illness and working with aging and ill patients is presented to promote self-reflection on how it affects our clinical practice.

Results: With increased self-awareness regarding these issues, therapists better understand how we are impacted by our personal issues in our clinical work opening the path to continued personal and professional growth and remaining effective and resilient clinicians.

Conclusions: Discomfort with one's own challenges with aging and illness coupled both with working with a complex medically ill aging population and the health and aging of our friends and relatives raises fears and vulnerability associated with aging and mortality. Unfortunately, these feelings lead too often to avoidance contributing to the ever-increasing aging population remaining under-serviced. Conversely, the healthiest way to deal with such feelings is through talking with a supportive group of colleagues through the use of a small series of questions as employed in this presentation.

Terminal Restlessness in Dementia

Vanessa Thoo, Leslie Giddens-Zuker

Background: Terminal restlessness is a known condition occurring towards the end of life. While this phenomenon has been well-studied in other palliative illnesses including cancer, it has not been fully explored in end-stage neurocognitive disorders. It stands to reason that engaging healthcare providers and families in early identification and treatment of patients likely suffering from terminal agitation will improve their quality of life during their end-stage care.

Methods: A literature review was conducted with a focus on terminal restlessness and neuropsychiatric symptoms in context of a dementia diagnosis. During this discourse, a case presentation focusing on the pharmacologic and non-pharmacologic treatment options will be discussed.

Results: Terminal agitation causes significant distress to the patient, their family, and the healthcare team. These symptoms can often be difficult to distinguish from neuropsychiatric symptoms associated with their dementia diagnosis and it is important for healthcare providers to consider this phenomenon when addressing an increase in responsive behaviours with no identifiable trigger.

Conclusions: Most neurocognitive disorders are progressive, leading to difficulty in effectively communicating one's needs. Early recognition and management of terminal restlessness are essential in providing a meaningful and dignified end-of-life experience for patients and their families.

A Collaborative Approltation-Liaison Psychiatry in the Geriatric Population: Optimizing the Care of Older Adults with Dementia and Neuropsychiatric Symptoms Admitted to Acute Care

Vanessa Thoo, Katelyn Reynolds, Linda Liu

Background: It is inevitable that with the aging of the Canadian population, the number of older adults being admitted to acute care will increase. Given the prevalence of dementia and neuropsychiatric symptoms in this age group, these admissions can be challenging for medical and surgical teams to manage, given the increased risk of delirium and associated responsive behaviours. This often results in prolonged admissions and challenging dispositions in an already burdened healthcare system.

Methods: A literature review was conducted with a focus on dementia and neuropsychiatric symptoms in the acute care setting. A multidisciplinary model of geriatric consultation-liaison psychiatry will be discussed using case presentations.

Results: The assessment and management of responsive behaviours and other neuropsychiatric symptoms in the acute care setting is complex. The goal of the geriatric consultation-liaison psychiatry service is to work in collaboration with the psychiatry clinical nurse specialist to optimize the management of BPSD through both pharmacologic and behavioural strategies, and liaising with the attending team and other allied health professionals. Our ultimate goal is to reduce the risk of harm and distress to the patient/family, frontline staff, or other patients, and coordinate safe and successful transitions to the community.

Conclusions: An increasing number of seniors with dementia and neuropsychiatric symptoms are being admitted to acute care. Geriatric psychiatry can best support our medical and surgical colleagues by using a collaborative care model.

The Creation of a Clinical Demonstration Unit. Embedding Ongoing Academic Research into Point of Care on a Geriatric Dementia Unit

Andra Duff-Woskosky, Dr. Ilan Fischler, Geriatric Psychiatrist, Dr. Wally Bartfay, RN, PhD, Associate Dean Health Sciences, Ms. Chaitali Desai, Mr. Tim Pauley, Director of Research and Academics

Background: Together, Ontario Shores Centre for Mental Health Sciences and Ontario Tech University forged a partnership with the intent to create a space of innovation in front line care. The vision of the Clinical Demonstration Unit (CDU) is to transform point of care on a Geriatric Dementia Unit within a tertiary mental health context using co-design to improve patient quality of life and recovery using technology. Goals of the CDU are:

- to foster and promote research collaborations, best practice initiatives and experiential learning opportunities;
- to integrate academic partners into the Geriatric Dementia Unit milieu;
- to adhere to Health Quality Ontario Quality Standards, adopt best practice and invent new practice;
- to integrate technology to drive practice;
- to realize this vision using co-design and patient and family engagement principles.

Methods: Needs assessment:

1. Staff and family focus groups and interviews were conducted to identify priority areas. Three major themes arose; Communication & Reducing Responsive Behaviours, Physical Environment, and Activities and Stimulation.
2. An Idea Jam (using Google Jam Boards) was held to brainstorm potential technological solutions to the above needs. The Idea Jam was attended by University researchers, students, interprofessional staff and persons with lived experience. Solutions presented during the Idea Jam were prioritized according to idea prevalence, ability to address priority areas, stakeholders impacted and current resources/practice.
3. A seed fund was jointly established by both partners and a call for research proposals was placed. Criteria for submissions were that they should be cutting-edge, making use of innovative, non-traditional approaches to improve standards in dementia care. Projects must include one Principle Investigator (PI) from each organization and should be related to the following three areas; Electronic games, Virtual reality and Artificial Intelligence.

Results: A frame work was created to guide the CDU efforts. The framework contains three arms; Research, Quality Improvement and Integrated Knowledge Translation. Below are the outcomes of each arm;

1. Research: Two studies were selected; a)Leveraging artificial intelligence and a conversational robot to detect and manage behavioural and psychological symptoms of dementia on a clinical demonstration unit and b) Advancing reminiscence therapy through virtual reality application to promote social connectedness of persons with dementia. Both studies will commence April 2020.
2. Quality Improvement: Two projects were completed in winter 2020; a)To evaluate the use, impact and effectiveness of Bright Light therapy on patients with dementia and b)To assess the use, impact and effectiveness of a relaxation chair on patients with dementia.
3. Integrated Knowledge Translation: Undergraduate students from Ontario Tech University studied the effects of Personalized Music Intervention on the behavioural and Psychological symptoms of dementia on patients in a geriatric dementia unit. Work completed January 2020.

The project group is now looking to a sustainable business model in which to drive this work. The vision is to continue this partnership and create CDU's on each one of inpatient units and outpatient services at Ontario Shores Centre for Mental Health Sciences. This business model will be complete by April 2020.

Conclusions: The creation of the Clinical Demonstration Unit has been a very fruitful partnership between Ontario Shores Centre for Mental Health Sciences and Ontario Tech University. Now at the completion of our first year, we turn our direction towards growth and sustainability. Our goal is to create a self-sustaining entity that drives innovation in mental health care utilizing technology.

Reducing Stigma Through Person-centred Language Online Learning

Katelynn Viau Aelick, Anthony J Levinson, Audra Thompson-Haile

Background: Language used to talk about dementia can have a significant impact on how people living with the condition and their care partners are perceived and treated. Behavioural Supports Ontario's (BSO) 'Person-Centred Language Initiative' began in 2016 with a goal to provide recommendations regarding language and communication. In partnership with Ontario Centres for Learning, Research and Innovation in Long-Term Care (CLRI), BSO engaged an expert panel consisting of individuals and organizations, including people with lived experience of dementia and their care partners. BSO and CLRI developed educational interventions and curated resources to facilitate and support practice change.

Methods: In early 2020, BSO and the Ontario CLRI enlisted McMaster University's award-winning iGeriCare dementia education team to design and develop evidence-informed multimedia e-learning. The team of collaborators proceeded to develop freely available online courses in both English and French.

Results: Initial results include the availability of brief web-based courses that are easily accessible through the open Internet (via smartphones, tablets, or desktop computers), enabling the person-centred language initiative to expand its reach. We will present an overview of the courses, and preliminary data on uptake, scale and spread of the courses, as well as implementation strategies.

Conclusions: The bilingual e-learning courses are a feasible approach to supporting the reduction of stigma through encouraging person-centred language amongst all care teams and partners.

Does Mindfulness Intervention and Health Enhancement Program (HEP) Improve Sleep Parameters in Hemodialysis Patients with Depression and Anxiety? An Actigraphy Analysis of a Randomized Controlled Trial

Rim Nazar

Background: Sleep problems are common in hemo-dialysis patients. Sleep can have important and determining factor for physical and emotional well-being as well as immune system function. This study was designed to investigate if sleep quality can be improved in depressed/anxious dialysis patients after an 8 week randomized controlled trial of Mindfulness intervention vs. Health Enhancement Program (HEP) (n=54).

Methods: Patients completed the Athens Insomnia Scale (AIS), PHQ-9 for Depressive Symptoms and GAD-7 for Anxiety Symptoms. Of these, 16 were outfitted with GENEActiv actigraphy devices for ≥10 consecutive days in two different time points (before and after the intervention). Sleep was defined as inactivity associated with less than 5° arm angle changes for minimum period of 5 minutes. The data was used to compute sleep on/off set, Center of daily inactivity (CenDI), the clock time of the center of daily inactivity, as a proxy for mid-sleep phase (chronotype); and (ConDI), the degree of consolidation of the daily inactivity, as a proxy for sleep: wake rhythm strength.

Results: Sleep consolidation/quality improved in both mindfulness and HEP groups, and it appears that mindfulness may improve sleep consolidation more than HEP. Full results will be presented at the CAGP 2020 conference.

Conclusions: Mindfulness and HEP may be helpful interventions to improve sleep consolidation/quality in hemodialysis patients with depression and/or anxiety symptoms.

The Stigma of a Diagnosis—a Case Presentation

Kerstina Boctor, Dr. Chedza Hatitchki

Background: JB is a 51-year-old female who presented to hospital with stroke-like symptoms post two unspecified syncopal episodes. All investigations were negative & upon voicing auditory disturbances & passive suicidal ideations, psychiatric services were consulted.

Medical records revealed multiple hospitalizations starting at the age of 19 due to suicide attempts and auditory disturbances when in distress. JB was later diagnosed with Schizoaffective disorder and Idiopathic Intracranial Hypertension (IIH). She went on to incur 31 years spent in numerous institutions, and treatment with psychotropic medications that resulted in various side effects including: metabolic syndrome, orthostatic hypotension, & recurrent falls.

Methods: Patient consent was obtained. All available hospital admissions & community records over a 15-year period were retrospectively analysed. One-year prospective post discharge follow up was conducted.

Results: Using an in-hospital multi-disciplinary approach, the diagnosis of Schizoaffective disorder was revoked, and JB received new diagnoses of intellectual disability (ID) & borderline personality disorder. She was weaned off ten medical & psychotropics medications, thereby improving her mobility, and ceasing the syncopal episodes. At discharge, JB's distress tolerance, auditory disturbances and suicidal ideations continued to improve. One-year post discharge JB has remained clinically stable on valproic acid & fluoxetine & lives semi-independently for the first time in her adult life.

Conclusions: A diagnosis of any mental illness heavily impacts patients, their families & can further impact clinical judgement & patient management. This case highlights the confounding impact of IIH & ID on clinical presentation and the pivotal role collateral and documentation plays on diagnosis and patient outcomes.

A Case of Late-onset Bipolar Disorder with a Resistant Manic Episode

Sarah Brunelle, William Pelletier, Anabel Lauzière

Background: We present the case of a Mister X, a 75 year-old man admitted on the geriatric psychiatry unit of our academic center for a first episode of mania. The transfer was requested by his family on the third month of a hospitalization in a regional hospital, during which he failed several medication trials. Mister X's family history was significant for having 4 brothers with type I bipolar disorder, one of them deceased from Parkinson's disease.

Methods: Upon admission on our ward, he was still exhibiting symptoms of lithium toxicity, even though he only had a short trial and the drug was discontinued several days before. Manic features reemerged as the intoxication subsided. We attempted to stabilize his condition with various medications, but he either did not respond or experienced important side effects. He was excessively prone to sedation and extrapyramidal reactions. He manifested paradoxical agitation as we titrated the doses of valproic acid. As we restarted lithium, he developed toxic levels even at very low doses.

Results: During the course of his admission, we came to suspect a comorbid neurocognitive disorder, in part due to the age of onset, sensitivity to side effects and cognitive deficits out of proportion to the manic symptoms. As a last recourse, we resolved to a trial of electro-convulsive therapy, to which he responded quite well for his manic symptoms.

Conclusions: This presentation will focus on late-onset bipolar disorder and the use of electro-convulsive therapy in this patients' population.

Un cas clinique de complication atypique chez un patient atteint de COVID -19

Natalia Mikhailichenko, Olga Sobokar

Summary: Avec la formation d'idées sur la pathogenèse et les mécanismes de développement de COVID-19, se posé la question sur des conséquences chez les patients âgés. On connait des cas présentant un risque accru de des accidents vasculaires. Dans de cas rares, un syndrome similaire à la démyélinisation et à l'encéphalite de la tige a été rapporté.

EXEMPLE CLINIQUE

Homme, 65 ans. Il est tombé gravement malade, la fièvre 40° C, une toux sèche et débilitante, des reprises, avec une faiblesse sévère et des accès de tachycardie. Selon la radiographie et la tomodensitométrie des organes thoraciques, une pneumonie polysegmentaire bilatérale a été détectée avec une diminution de la saturation jusqu'à 90%. COVID - 19 est confirmé par des tests.

Les caractéristiques distinctives du cours étaient l '«exacerbation à 2 vagues» clairement exprimée. Ainsi, au 21e jour, dans le contexte d'une amélioration de l'état et d'une baisse de la température corporelle à 37.4, ainsi que d'un soulagement des symptômes pulmonaires, des troubles neurologiques sont apparus: engourdissement sévère des membres supérieurs et inférieurs et crises sympatho-surrénales. Les symptômes neurologiques ont disparu à la fin du deuxième mois.

Une caractéristique distinctive de la complication neurologique à COVID-19 était l'apparition de symptômes de dommages au système nerveux dans le contexte d'une diminution de la réplication du virus et d'une diminution des symptômes généraux d'intoxication, ainsi que de l'effacement des symptômes de la polyneuropathie, avec une composante sensorielle prononcée, en l'absence de déficience motrice.

Ayant plus d'expérience, nous pourrons conclure que les symptômes neurologiques seront secondaires à COVID-19 que les dommages primaires au système nerveux central.